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Challenges in Work and Employment during the COVID-19 Pandemic

Edited by
Satu Kalliola and Tuula Heiskanen

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Editors

Satu Kalliola
Tuula Heiskanen

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Editors
Satu Kalliola
Tampere University
Finland

Tuula Heiskanen
Tampere University
Finland

Editorial Office
MDPI
St. Alban-Anlage 66
4052 Basel, Switzerland

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About the Editors

Satu Kalliola

Satu Kalliola (DrSocSc, social psychology) is Professor Emerita in Social Policy at Tampere University. She has studied the development of municipal work organizations in Action Research projects since the early 1990s and later expanded her research to cover evaluation research and learning at work. Her other research interests include human resource management, labor management co-operation, and the role of trade unions in the issues of working life development. Her publications include "Dialogue in working life research and development in Finland" (Eds. Jarmo Lehtonen and Satu Kalliola, Peter Lang) and "Evaluation as a tool for research, learning and making things better" (Ed. Satu Kalliola, Cambridge Scholars Publishing).

Tuula Heiskanen

Tuula Heiskanen (PhD, psychology) is Docent at Tampere University. Her research experience relates to studies on public and private organizations from the perspectives of work psychology and sociology. The subjects of her studies deal with effects of technology, issues of learning, gender at work, commitment, and practices of knowledge in work organizations. Her publications include "Gendered practices in working life" (Eds. Liisa Rantalaiho and Tuula Heiskanen, MacMillan) and "Information society and the workplace" (Eds. Tuula Heiskanen & Jeff Hearn, Routledge).

Preface to "Challenges in Work and Employment during the COVID-19 Pandemic"

The global world is still acclimating to the COVID-19 pandemic declared in March 2020, a few months after the first signs of the outbreak. The resulting restrictions and lockdowns affected work organizations worldwide, while the many coping strategies implemented during the pandemic offered new tasks to working life research communities.

Researchers from Belgium, Canada, Finland, India, Norway, and South Africa took the opportunity to share their research results on the experiences of living with these measures in the Special Issue *Challenges in Work and Employment during the COVID-19 Pandemic*. Following a rigorous peer-review process, 10 research articles were accepted and are now published as a reprint.

In addition to country-specific features, the impact of the pandemic varied among different occupational and professional groups. The articles present the experiences of employees from a range of fields, such as professional work in higher education, teaching, social work and healthcare, engineering, and workplace development and cultural services. Work in the cultural sector can be precarious even without the pandemic; thus, these special circumstances highlighted the issue of unemployment more heavily in this field. Data consisted of pre-existing research and new data gathered via surveys and interviews. The articles shed light on the ways new situations were handled based on the levels of work organizations and individuals and looked forward to changes applicable after the pandemic.

This reprint will be of interest to researchers and practitioners in the different fields of working life and workplace development, human resource management, leadership, and labor market policy.

Satu Kalliola and Tuula Heiskanen
Editors

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Editorial

Challenges in Work and Employment during the COVID-19 Pandemic

Satu Kalliola * and Tuula Heiskanen

Faculty of Social Sciences, Tampere University, 33014 Tampere, Finland
* Correspondence: satu-sisko.kalliola@tuni.fi

Since 2019, we have been living and working in close connection with the threat of an infectious disease caused by the SARS-CoV-2 virus. The World Health Organization (WHO) [1] declared the COVID-19 outbreak as a pandemic on 11 March 2020. After that, countries all over the world took various preventive measures to secure the lives and health of their people. Many, if not all, of these measures, such as general lockdowns and social distancing, impacted people's everyday lives. Alongside various country-specific compensation and support schemes to aid businesses, work organizations strove to change their operations to meet the challenges presented by the pressure of simultaneous health and economic issues.

As the COVID-19 pandemic continued for a second consecutive year, along with new vaccines, nations gained experience with many types of preventive measures. It was at this point in time that this Special Issue was launched, on 25 March 2021. For ongoing and future recovery actions, it was considered important to find out what types of initiatives had been taken with respect to work and employment and how they were appreciated. On a global scale, worldwide organizations (the International Labour Organisation [2], Organisation for Economic Co-operation and Development [3], and World Bank [4]) have monitored from their specific perspectives the effects of COVID-19 on work and employment throughout the pandemic. It was considered relevant to focus on the level of work organizations and people's life experiences while meeting the challenges of the new situations caused by the pandemic.

Thus, this Special Issue was intended to contribute to a comprehensive understanding of changes that occurred due to the preventive measures against the pandemic in the domains of work and employment as a basis for further research and new practices, which would potentially also be relevant in the long run after the acute crisis is over.

The topics covered by this Special Issue include job security and employment status; working hours at the workplace; working from home (teleworking); quality of working life, including national- and workplace-level employment relations; workplace culture; leadership, management, and supervision styles; trust and control; gender-based work practices; reconciling work and family; and professional work practices traditionally characterized by close contact with clients or students, such as social work and teaching, education, learning of vocational skills; workplace development, and workplace learning.

These topics have aroused international interest, and we were happy to see contributions from Canada, India, and South Africa in this Special Issue. In addition, contributions were co-authored by Norwegian and Belgian colleagues alongside Finnish researchers, while the enthusiasm of Finnish researchers in multidisciplinary working life research can be seen in the rest of the contributions.

Temporal or permanent unemployment is one of the most challenging effects of restrictive measures during the COVID-19 pandemic. In this Special Issue, the contribution dealing with pandemic-related unemployment comes from the Finnish cultural sector, which is characterized by established institutions, but also by self-employment and precarious work. Haapakorpi et al. [5] collected written texts by artists and professionals

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about their experience during lockdown, when activities in the cultural sector, particularly in the performing arts, were closed down due to regulations about social distancing. Unemployment and a shortage of assignments for self-employed workers were common consequences in the industry. The authors used a content analysis approach to find out the ways cultural workers maintained their agency in temporal and relational dimensions regarding work and non-work.

Social distancing regulations during the pandemic were experienced as obstacles for workers in inpatient substance abuse treatment. Ekqvist et al. [6] analyzed semi-structured focus group interviews with professionals about their experiences during the pandemic and describe difficulties in applying social distancing in the context of treatment based on therapeutic communities. The professionals had to balance the need to secure lives and health by preventing infection from spreading within treatment units while assuring the quality of their treatment services. The pandemic also presented challenges regarding communication and co-worker support among professionals. Additionally, it was noted that in-person mutual help groups, which offer peer support alongside the professional help received in inpatient treatment, were inaccessible or highly limited, which accentuated the experience of impaired care during the pandemic.

While the treatment practices in inpatient care cannot be transformed by technical solutions without impairing the care, there are other fields of work that have allowed this type of transformation. Syvänen and Loppela [7] present a participatory action research (PAR) case in which research-assisted workplace development that was usually conducted face-to-face and in dialogue forums took place online. The authors analyzed the challenges, learning experiences, and effects of the COVID-19 pandemic on a social, healthcare, and special education development project within a framework of theories of dialogic development and leadership. They used data collected along the course of the case by using various assessments and a questionnaire. Neutral, negative, and positive experiences among two participant groups involved in the project, implementers and pilot organizations, with remote work, devices and applications, and remote and technology-based development processes, were recorded. Both participant groups reported increased pressure at work, social isolation, and professional loneliness, and, on the bright side, improved work control and efficiency. The pilot organizations learned the development method, and development work continued with the use of technology despite the pandemic.

Seema Singh [8] studied the status of women engineers in education and employment during the COVID-19 pandemic in India using a multimethod approach. Singh presents how women engineers in India are respected in their field of work and notes that this respect leads their families to support them and give them aid. This support and aid help them to reconcile work and family and overcome the intersectional stigma they experience as caregiving women in a male-dominated education and career.

The topic of working from home (teleworking) is frequently dealt with in the contributions, both theoretically and empirically. This theme also underlies a study of online workplace development and dialogues by Syvänen and Loppela, although it is not presented. Sheldon Bromfield [9] in Canada takes a theoretical stance. He presents the advantages of working from home from the existing work-from-home literature and draws on labor process theory to challenge these advantages. He concludes that when consenting to a work-from-home arrangement, workers are cut off from the benefits of in-person social relations of work and learning.

A study based on social workers' diaries by Saraniemi et al. [10] seems to point in the direction of Bromfield's approach. Their results highlight how the multilocation of work, together with a fear of viral infection and varying attitudes toward the viral outbreak, affected interactions between colleagues in the early stages of the pandemic, with increased tension and feelings of social distance between co-workers. The common professional values and knowledge base of social work, as well as the remote work practices developed during the first wave of the pandemic, supported interactions between colleagues. However, these could not fully replace face-to-face interactions and informal everyday

encounters between colleagues, which are essential for developing and maintaining social capital among work communities.

A qualitative study by Finnish working life researchers and their Belgian colleague, Tapani et al. [11], takes the lack of in-person social relations a step further as they place relatedness among the basic psychological needs. While relying on self-determination theory, they see that relatedness, together with autonomy and competence, affects health, well-being and productivity. As remote work may disrupt experiences of relatedness, the study calls for developing good remote interaction and leadership practices that convey care for the employees.

A study by Lilja et al. [12] applied a job demands–job resources model for circumstances created by COVID-19, and included the fear of infection, together with work–home conflict and increased workload, as a job demand variable in a digital survey conducted in Norway and Finland. Job resources are considered to consist of COVID-19-related organizational support and digital job resources such as a positive attitude toward digital solutions and well-functioning digital meetings. The authors studied the association and balance between job demands and resources and employee well-being among different occupational groups in the two Nordic countries, noting that the groups were not totally comparable. Mainly knowledge workers had the possibility to work from home, and health care personnel had to work on-site. The authors found that Finnish teachers and Norwegian health and social service sector employees experienced a fear of infection to the degree that it was connected to their exhaustion. As a whole, the results point out that job demands and resources were differently associated with employee well-being across occupational groups and countries. Furthermore, the authors conclude that COVID-19-related organizational support may act as a supportive element to sustain employee well-being during a pandemic.

The experience of working from home, a new type of job demand created during the COVID-19 pandemic, was also the focus of a study conducted by Iwu et al. [13] among South African academics in higher education. The results of this study, in which interviews were conducted by e-mail, emphasized the lack of preparedness when the pandemic reshaped the educational system from traditional face-to-face to online teaching and learning taking place at home.

Sjöblom et al. [14] conducted a study based on data gathered by an electronic survey and present new knowledge about self-leadership and psychological safety in the context of remote work. The study sheds light on the interrelatedness between self-leadership strategies, psychological safety, and occupational well-being. It presents a novel category of well-being-related self-leadership strategies and contributes to the measurement of both self-leadership and psychological safety. To both enable sufficient well-being and facilitate flourishing at work, it is imperative to support employees in learning and applying diverse self-leadership strategies and to ensure psychological safety at the workplace, especially in the context of post-pandemic multilocational work.

For the time being, as this Special Issue is being completed and this editorial is being written, the COVID-19 pandemic is still going on, but not as strongly as before. When giving a press conference on the weekly COVID-19 update on 19 September 2022, WHO pointed out that during the previous week the number of weekly reported deaths from COVID-19 was the lowest since March 2020 and interpreted further that the end of the pandemic was in sight. However, WHO stressed that "we are not there yet". Despite the downward trend, WHO gave advice for all countries to plan for surges of cases [15]. According to the latest weekly update on 26 October 2022, the global numbers of new weekly cases and deaths have continued to decrease. The number of new weekly cases had decreased by 15% during the week of 17 to 23 October 2022 as compared to the previous week and the number of new weekly deaths had decreased by 13% [16].

Regardless of the future of the pandemic, working from home will probably remain as one part of remote or multilocational work. This, in turn, will mean that the issue of the quality of working life for remote workers will not lose its topicality in the near future. In

the contributions, the quality of working life as a whole is approached mainly from the point of view of employee or occupational well-being, while leadership and management styles are focused on as ways to provide organizational support amidst new job demands and elements of social capital as an aspect of workplace communality.

Hopefully, international readers will find the contributions relevant for some time despite some of the inherent limitations. The contributions are based on studies conducted in circumstances where the virus itself had a significant role, such as unemployment in the cultural industry because of total lockdowns, and care work and contact teaching of small children because of the risk of infection. In many other fields of the economy, the relationship with the pandemic as such was more distant, especially if working from home was possible, such as in higher education. Many production and service sectors also have key roles in keeping societies going and cannot function totally online.

The contributions also point forward, toward a future multilevel working life that may or may not be characterized by new crises. Further research would be useful at the level of social policy issues, work organizations, and individuals. The social policy level includes issues such as how to secure peoples' income during a pandemic. People working in different fields have different options to secure their income: they could find paid employment in a new field, choose entrepreneurship, or attempt a combination of both. At the work organization level, there was a lot to learn from the pandemic. There was little knowledge and a lack of strategies to reorganize work in order to meet the demands of social distancing and an intensified use of digital technology. At the individual level, adapting to working without face-to-face contact with colleagues or their social support and learning about new modes of work are current and future challenges.

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Article

Time, Space and Agency in the Finnish Cultural Sector at the Time of COVID-19

Arja Haapakorpi [1], Minna Leinonen [1,*] and Katri Otonkorpi-Lehtoranta [2]

[1] Work Research Centre, Tampere University, 33014 Tampere, Finland; arja.haapakorpi@tuni.fi
[2] Work Community Development—Study Program, Humak University of Applied Sciences, 00400 Helsinki, Finland; katri.otonkorpi-lehtoranta@humak.fi
* Correspondence: minna.leinonen@tuni.fi

Abstract: The organization of working times and workplaces has typically been diverse and hybrid for people working in culture. Work is characterized by precarious conditions such as short-term contracts and seasonal employment. The impact of COVID-19 has shown the vulnerability and uniqueness of the employment conditions in this sector. We collected personal written texts from people working in the cultural sector in spring 2020, when in Finland the first wave of COVID-19 was subsiding and nobody knew when the next wave would come. We analyzed the ways cultural workers constructed agency on temporal and relational dimensions as regards work and non-work. The content analytic approach highlighted two main types of situational agencies, the normative employment agency and the precarious work agency, both of which were shaped by the uncertain conditions of the cultural sector. Due to the differing employment conditions, both intensification of work and small agency were present in work of the cultural sector and posed challenges to the management of time and the future. However, the terms and conditions for agency construction varied, even under similar circumstances.

Keywords: agency; COVID-19; cultural sector; precarious employment; small agency

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1. Introduction

The world-wide emergency due to the COVID-19 virus has resulted in a variety of social, economic and cultural restrictions and regulations in addition to the direct impact on health (e.g., [1,2]). However, the consequences have been in many ways uneven as regards employment and work, such as the personnel in health services being exposed to the virus and the employees in market-based services losing their jobs because of the strict regulations. (e.g., [3,4]) The government of Finland set regulations related to the COVID-19 pandemic in March 2020. The social distancing limitations caused the closing of public interiors and public meetings were restricted to 10 persons, which was later relaxed to some extent, which forced the cultural sector to halt their activities or transfer them to the future [5,6]. In many sectors, such as tourism [7,8] and the cultural sector [6,9] in which work and income are based on communication with the audience, but with no status of obligatory service provision like health services, the impacts of the COVID-19 pandemic have been dramatic. In this article we focus on the cultural sector in Finland. The COVID-19 pandemic has closed down activities in the cultural sector to a large extent and particularly those in the performing arts. Unemployment and shortage of assignments for the self-employed have been the consequence in the industry. The impact on employment has been particularly negative in the cultural sector, as during the first wave of the pandemic, the growth in unemployment was 57% (v). The consequences of COVID-19 for cultural sector employment and activities varied. The municipalities and NGOs reported less serious impacts on their activities, for the proportion of those with serious impacts was 22–27% compared to the private sector and individual professionals with their 74–76% proportion. Individual professionals evaluated the lost or cancelled assignments and employment

opportunities to be 93%, but 44% of them reported new job opportunities [10]. However, employment in the cultural sector is often underestimated in official statistics for many reasons, but in particular the structures of employment (OECD 2020), which also applies the era of the pandemic [11].

High technological infrastructure and the related qualifications of the workforce are described to be typical for Finland [12]. During the pandemic, distance work with virtual connections was used by those for whom it was feasible, about half of the workforce [13]. The proportion is high and also includes employment opportunities provided by technology for the workforce in the cultural sector. However, replacing social events with virtually mediated services is limited for many reasons, such as high expenses and limited demand due to the lack of social contact [14]. Although culture is valued during hard times [15,16], people are not ready to pay high fees for cultural services [17], and, for example, in social media, culture services are available free of charge.

In European countries, economic support has been allocated to the cultural sector [6]. However, the support has been directed to established culture institutions to guarantee their continuity and a promise for future activities, but the artists and professionals in the industry with their atypical employment pattern have been dismissed to a large extent [14]. The reason is embedded in their position outside the labor market institutions and the permanent channels of welfare systems, such as unemployment benefits as the funding has carried out through institutionalized channels [14]. Multiple job holding, a mixture of different patterns of sourcing income is not recognized in welfare systems, which are based either on the employee position or entrepreneurship. During the pandemic, the marginal position of cultural sector workers was revealed, although it has been commonplace for a long time. The economic support has been addressed to the cultural sector via the Ministry of Education and Culture, the Ministry of Economic Affairs and Employment, municipalities, and NGO's [18]. Despite the variety of sources, numerous artists and professionals in the cultural field, mostly multiple job holders, were not entitled to support in Finland.

Our contribution to the studies on the emergency focuses on the artists and professionals in the cultural sector, for we assume that the essential consequences will manifest in the living spheres of this group. We imply not only the ongoing emergency but the possibility of similar phenomena in the future of the globalized world.

Finland as a case study represents a particular country with respect to introducing new technologies, which also applies to the cultural sector. However, the workforce in the sector shares terms and conditions with other Western countries in respect to employment before and during the pandemic. Thus, we assume similarities regarding the work with other Western countries in Europe, but also specific reshaping of work through technology. As the pandemic may raise the significance of virtual technology at work also in the cultural sector, we ask, if it is related to agency.

We begin the article with a presentation of the employment position and work profile of artists and professionals in the cultural sector in Western countries and particularly in Finland to frame the subject of the study. After that, we outline our theoretical approach on the basis of the literature on agency in the context of precarious work. Presentation of the data and methodology follows. The analysis, interpretations, conclusions, and discussions are the core of our contribution.

1.1. Between Employment and Calling

In 2018, the proportion of the labor force in the creative sector was 3.8% of the total labor force in Europe, while in Finland, the proportion was somewhat higher, 5% of the total labor force. These are well-qualified individuals, for higher education is fairly commonplace for professionals in the cultural sector, with 59% holding a tertiary-level qualification and in Finland with 60% holding a higher education degree [19]. Artists and professionals in the cultural sector more often make their living as self-employed persons (33%) than is the case in other industries (14%); in Finland, the corresponding proportions

are 28% and 12%, respectively [19]. Earning income from many sources is common; 11% of these people are multiple job holders, the comparable figure for the average for the labor force in Finland being 6% [20]. However, the statistical methods for collecting and analyzing data may underestimate the actual proportion as multiple job holding is rarely a permanent employment arrangement and more like a flexible way of organizing one's current projects and income [14].

The cultural sector is heterogenous as it includes a variety of artists and professionals, tasks, positions, and employment patterns.

The parallel patterns of non-paid, calling-based and paid work in the cultural sector have shaped the positions of the professionals and artists, ranging from the market-based and commercial cultural industry to individual work with a risk for precarious employment. [21]. As the commercial and market-based industry is typical for the US, according to Ross [21], the European cultural sector is framed with policy and public sector funding, which does not guarantee more security in employment [22]. The ambiguity in employment shapes the work in the cultural sector and working free of charge sometimes leads to self-exploitation and extreme flexibility [21,23], which is claimed to concern women more [24]. However, with the variety in the sector, people may also adopt a pattern more typical for wage-earners, which is based on negotiations and control over their work and terms of employment [25]. The trend is called "the industrialization of Bohemia" [26].

Due to the hard competition for funding and underemployment in the cultural sector, multiple job holding is a typical employment pattern. Extra sources of income are often necessary in order to ensure sufficient income [27]. The profile of tasks is gendered to some extent, for men tend to have prestigious creative tasks more often than women and women tend to more often take on tasks external to the creative work [28].

The hybridization of income sources and work has been recognized in many studies [23,27,29].

In Australia, half of the working hours are spent on creative work, a quarter on tasks related to arts and culture and the rest are external to artistic work [30]. In Finland, the corresponding proportions are 39%, 44%, and 17% [27]. However, the definition and categorization of artistic or professional tasks is not always clear and the division into artistic work and non-artistic work may depend on the contexts. For example, the same task may be regarded as creative work or external work, depending on the purpose of the task and its relation to other tasks [27].

With the lock-down, a significant number of the performing artists and professionals in the cultural field have lost their employment, assignments, and income. They are marginalized in a special way, for the authorities and institutional agents in the cultural sector express lack of knowledge of their current economic, social, and employment situation [16]. However, people with problems in their living spheres, excluding extremely violent environments, are not passive victims but active individuals with their resources striving to solve their problems. In addition, assumed or imagined futures may reinforce agency with new, hopeful goals. Imagined future creates a mindset based on meaningful trajectories for agency. However, severe circumstances may diminish agency into plain survival and narrow future prospects. Precarious terms of employment may decrease latitude in social, cultural, and individual life, in addition to financial situations.

Our conception of the situation of the artists and professionals in the pandemic era is based on the exceptional lock-down in the cultural sector with hard economic and employment-related problems, but also human agents with their individual, social, cultural, and action capacity. We ask how agency is enacted in time and temporally evolving relational contexts in the written texts of cultural workers and how the financial situation and employment arrangements define possibilities for agency. Our aim is to study artists and professionals in the cultural sector by applying the approach of agency theory engaged with the perspective of small agency, but also to analyze agency through the lenses of precarious employment. The main focus is on work agency and how it is or is not realized. In so doing, this article contributes to the theoretical debates on temporally constructed

agency by demonstrating the different ways in which the dimensions of agency take in the temporal and relational perspective of actions. As cultural workers responded to the rapidly changing situation caused by the outbreak of the COVID-19 pandemic, they had to reconstruct their views of the past in order to understand the emergent present and to control and shape their responses in the arising future [31]. Thus, our aim is to make the different temporal dimensions of agency visible, in particular in relation to the future. Our analysis begins with the changes in agency caused by the pandemic in relation to precarious employment agency and continues to the perspective of the emerging future and hope.

1.2. Agency as the Core of the Theoretical Approach

The concept of agency has long and multi-branched roots that have usually been traced to the Enlightenment debate on the nature of human freedom. In sociological discussions developing primarily out of Enlightenment thought, agency is conceptualized as the relationship between an individual's actions and the surrounding structures that restrict an individual's freedom externally. Since the establishment of sociology, different approaches to agency have placed different emphases on rational choice and individuality in relation to social and cultural structures [32]. However, it seems that all conceptualizations of agency are engaged in the premise that agency always presupposes the existence of both power and freedom.

Our orientation to agency is temporal-relational. We share Emirbayer and Mische's idea that "all forms of agency are temporally embedded in the flow of time" [31]. In our study this means that the ways in which cultural workers understand their own relationship to the past, present, and future make a difference to their agency, agentic possibility and actions. Cultural workers see their world through an agentic possibility that is in relation to the structural, relational, and situated context of the pandemic. The construction of temporal perspectives is an intersubjective process informed by an individual's own reflection, but also influenced by others' viewpoints [31].

In this article, we analyze temporal-relational agency in a framework that utilizes the theorizations of precarious work and focuses on the subjective dimension of precarization [33–37]. It has been claimed that precarious work has made the availability, the permanence, and the quality of jobs more uncertain with consequences not restricted to work but also affecting many non-work domains. Thus, precarious work has an overall impact on an individual's everyday life. We approach precarious work as the nature of labor market working conditions that holistically affect an individual's living conditions.

In addition to precarious work, we complement our perspective of temporal-relational agency with theorizations of agency highlighted in feminist research [38,39]. Honkasalo [38] has used the concept of small agency to draw attention to small-scale ways of acting and knowing, including modes of action that do not aim at change, but at preserving the status quo. This affords an opportunity to extend the view beyond rational action and also takes into account, in addition to activity, passivity and hope, which can mean waiting and enduring. The concept of small agency is especially useful in the context of situations in which forms of agency and agentic possibilities rapidly change and become restricted. In such historical situations, such as COVID-19, the structural context demands actors to reconstruct their view of the emergent present in order to respond to the rising emerging future. Utilizing the concept of small agency is particularly fruitful in our case, since small agency allows addressing simultaneously both dimensions of agency: it can be passive and active at the same time. The concept of small agency offers a useful basis for examining restricted life conditions as experienced by cultural workers when the COVID-19 pandemic to a large extent closed activities in the cultural sector.

1.3. Precarization as a Mode of Working in the Cultural Sector

Our perspective on precarization is an individual-centered study of the nature of precarious working conditions and its consequences for an individual worker in the cultural

sector. We approach cultural work as a precarious mode of working for three reasons. Firstly, cultural work can be examined in the context of job insecurity. We understand job insecurity here as working conditions in which short-term and multiple job holding are a typical employment pattern, periods of employment and unemployment vary and overlap, and incomes remain low. Cultural work is often in short supply, project based, and allocated by informal networks. Insecurity occurs as a fear of loss of employment, in other words, job insecurity can be described as a threat to the continuity and stability of employment.

Secondly, cultural work is an example of flexible work, in which workers typically experience periods of intense work followed by slow periods or even unemployment. However, flexibility does not refer only to the quantitative variability of work. Flexibility extends to a certain mindset that occurs in a readiness to react and adapt to rapidly changing and appearing work opportunities. George Morgan and Pariece Nelligan have termed such flexible workers as labile labor that is "mobile, spontaneous, malleable, and capable of being aroused by new vocational possibilities" [40].

Thirdly, and closely related to the previous characteristic, cultural work is highly individualized. This means that the work becomes more and more attached to the person. It requires an even deeper and more personal and passionate contribution as individuals actively pursue their work careers. Constructing an individual's own biographies has become a duty that requires individuals not only to act, but also to take responsibility for those actions and their productivity. Therefore, responsibilities become individualized.

1.4. Small Agency in Cultural Work

Honkasalo [38] has described small agency as 'minimal agency', which refers to acting that can manifest itself as being, waiting, passive reception, and enduring. These modest modes of acting and knowing may suggest that nothing inevitably happens in it, nothing changes, but it is still a significant and functional thing for an individual herself. In the context of cultural work Åkerblad [37] has pointed out that the idea of small agency fits well in the analysis of career breaks or situations, in which working conditions are unsatisfying, for example, due to chained employment relationships. In these situations, space for acting shrinks as options dwindle. Åkerblad has called these situations career hubs. Career hubs are moments with a demand for constructing a new way to act. Choosing a way to act may appear to be almost impossible and the agentic possibilities very restricted. Agency is characterized by a lack of alternatives, as the ways of operating that seem possible are shrinking. The concept of small agency enables us to analyze both the "active" activity needed to cope with the situation and the "small" activity, such as tolerance or endurance. This is relevant for understanding how continuity, which also provides opportunities for the new, is produced.

2. Data and Methods

The data were a collection of written texts by artists and professionals in the cultural sector. Data collection took place in spring and summer 2020, in the aftermath of the first wave of the COVID-19 pandemic. The COVID-19 pandemic spread to Finland in late February 2020. The main strategies that the Finnish government adopted were lockdown and physical distancing. The premises of schools and other educational institutions were closed, and contact teaching was suspended and replaced by remote teaching. The government recommended that, whenever possible, children should be cared for at home. However, daycare centers remained open, as well as contact teaching in grades 1–3 for the children of parents working in sectors critical to the functioning of society. The premises of all cultural institutions, such as state and municipal museums, theaters, the National Opera, cultural premises, libraries, and mobile libraries, were closed. The same went for hobby facilities and venues, swimming pools and other sports and youth facilities, organization meeting facilities, day care activities for the elderly and rehabilitative work. These arrangements were in effect for approximately two months, between 18 March and 14 May 2020. The gov-

ernment restricted public gatherings to ten people and recommended avoiding unnecessary presence in public places. In addition, the government recommended that remote work be preferred whenever and wherever feasible. Some restrictions and recommendations remained in place to some extent throughout 2020.

The data were gathered with a virtual data collection tool Penna of Finnish Social Science Data Archive, Tampere University, which follows the necessary security and confidentiality guidelines. We launched the call and spread it via social media and through e-mails to individuals, agencies, NGOs, public sector institutions, and other relevant actors. We also launched advertising about the call through a radio station. Texts received totaled 34, and for this research, 29 of the texts were analyzed. The five texts excluded were too short, or they were from the sectors of youth and sports services and did not meet the criteria of cultural work.

The introduction and the themes and questions of the call were as follows:

We are collecting texts on experiences and changes in work dealing with the pandemic COVID19 and hope for a multiplicity of answers to our call. We provide the following themes, but the choice is yours.
Questions and themes:

- *How has the emergency shaped the planning of work, the tasks, time resources for work and the pace and schedules?*
- *If you have lost your job or assignments, do you get unemployment benefit, have you applied for the financial support provided by the authorities or do you have other sources of income?*
- *Have you found new working methods or patterns (for example virtual channels)? Has the lock-down shaped the content of your work? Are there new dimensions in your work, which seem to be established?*
- *What decisions have you been forced to make? What about the decisions having an impact on other people (work-related health and safety, income, survival of the work organization, future)?*
- *Have you been supported by other people, such as your work-site and colleagues? How have the government and society supported you in these hard times?*
- *Do you have experiences of being treated unequally or being marginalized?*
- *How do you cope with the lock-down?*
- *How do you see the future? What kinds of expectations and assumptions do you have?*

The description of the data covers information on gender, age (Table 1.), and profession and employment pattern (Table 2). There were 17 women among the respondents and 11 men. Two classified themselves as "other gender".

Table 1. The data categorized by age. Information on age is lacking from one text.

Age Group	Number
20–30 years	2
31–40 years	9
41–50 years	8
51–60 years	7
61–74 years	3

The employment pattern refers to the era before the lock-down. Those with employment contracts were entitled to unemployment benefit, but the self-employed (entrepreneurs and freelancers) and those with a grant-based income were not entitled such assistance. Most of them had applied for a special, lock-down related grant from the Ministry of Education and Culture, and many of them had received it.

The analysis was carried out using content analysis [41]. First, the data were read through. The coding was based mostly on the themes emerging from the answers to the questions. Although there were similarities in the texts based on the guidelines given to the writers, the texts varied in respect to length and content. The writers focused on the themes

which were meaningful for them, for example family life and negative impacts on the workplace. In addition, financial situation, changes in work opportunities, powerlessness but also hope emerged from the data. Experiences relating to time and temporal changes were recurrent in the data, likewise the possibilities to act. For a more precise coding, reading focused on descriptions of the changeability of agency in time (the past, present, and future at the time of writing). The possibilities for agency were tied to the economic and employment situations of the writers thus offering an important avenue for further analysis.

Table 2. The data categorized by profession/artistic discipline and employment pattern.

Profession/Artistic Discipline	**Performing Arts (13)**	**Visual Arts (9)**
Self-employment	6	2
Wage-earner	6	2
Multiple income source	1	2
Grant-based income		3
Profession/Artistic Discipline	**Officials (Library and Cultural Services) (5)**	**Audiovisual Arts and Multiple Tasks in Perform Arts (3)**
Self-employment		1
Wage-earner	5	2
Multiple income source		

3. Results

In the following, the findings are organized into two main sections: changes in agency from past to present and agency in perspectives on the future. In both sections the temporal perspective is defined by the present of the data in the written texts, the first wave of COVID-19 in Finland and its immediate aftermath in spring and summer 2020.

3.1. Loss and Intensification of Work Agency

Agency exists and is enacted in a temporal continuum. Agency is also affected by several spatial arrangements. In relation to work agency and the boundaries between work and non-work the analysis brings forth financial conditions that shape agency. Among the cultural workers this could be observed in two distinctive categories: normative employment agency and precarious work agency. Both were based on the understanding that livelihood in the cultural sector was often uncertain even without the pandemic, and people constructed their agency in relation to this understanding. To be clear, these categories were situational and changeable and attached to that particular time and circumstances.

Normative employment agency consisted of the experiences of such writers who had an employment contract, mostly in municipal libraries and in the production of cultural events, but also of such cultural workers who at the time of the first wave of the pandemic had other types of financial support such as unemployment benefit. This type of agency was also limited in the sense that it challenged the boundaries of art as work and non-work and, on the other hand, the boundaries between art and non-art.

When agency is outlined by a normative employment relationship, however briefly, this could mean that one's situation did not match the publicly shared understanding of being a starving artist worthy of Corona-related financial support.

> *Suddenly it is a blessing to be on unemployment daily allowance . . . On the other hand, it feels like that I can't apply for grants as I've had no gigs to lose. Quarantine makes my life continue as I did before Corona, home alone.*
>
> (woman, performing arts)

The writer had experienced longstanding stress and feelings of exclusion that carried over to the time of lockdown. In the data extract, the woman working in the performing arts expresses that her situation is financially more sound than among others in cultural work, even though it can be expected to be tight anyway. In terms of space, lockdown also does not change her situation of social exclusion. Thirdly, the extract reveals the self-limitation of agency: who is entitled to grants in a situation where extra grants are awarded in order to compensate for artists' loss of income. As always, grants were awarded based on the merits of the application and could, theoretically, lead to the writer taking somebody else's place, somebody who was more needy than her and worthy of the grant.

This type of survivor's guilt functioned as an inducement to the intensification of work for those whose work situation was only slightly affected by the first wave of the pandemic. For those with the opportunity to do remote work this could mean an increase in meetings and contacts with partners and clients with few opportunities for breaks and being laden with the burden of staying in a constant state of preparedness.

> *I believe that a large part of us working in the arts and cultural administration is driven to overt diligence and over-achievement because of our awareness of how lucky we are to be in this situation. Our work continues at the same time as so many colleagues and wonderful artists have ended up in a really difficult situation. We try to do our part so that at the same time we would prepare as good an opportunity for them to return to work as possible when the corona situation has passed.*
>
> (woman, cultural administration)

The people with permanent incomes were grateful to their employers for not being laid off. However, they had to work in alternative, non-professional tasks, as the libraries and other culture institutions were closed. They practiced flexible agency in negotiating with the employer and accepting the alternative tasks.

The ties of normative employment agency to the boundaries of art and non-art were apparent in comparisons between people working in the cultural sector and how art should or was expected to be a part of their work. When faced with difficult circumstances, comparison was also a way to cope in reduced circumstances and with heightened demands on one's time and effort:

> *Now that I'm approaching retirement age, I realize what a gift I've given myself by staying in a permanent job, even though it's often caused a huge conflict in relation to my artistic work and my well-being.* [. . .] *Workload was increased, my part-time teaching hours weren't at all sufficient. On the other hand, I didn't get a pay rise. So, I had to think like this: "I have to be grateful that I didn't lose my job so I'll do even these extra work hours for free and without complaint." I don't know if this kind of gratitude thinking should exist in working life at all. But watching the posts of distressed colleagues on Facebook or pictures of exhausted Spanish nurses online, my own extra work seemed so little that I didn't have the nerve to mention the whole thing.*
>
> (woman, visual arts)

Tensions between different types of work and methods of earning one's living were apparent in the data. When resources are scarce, gate-keeping practices become relevant in determining opportunities for agency as in whether one is artist enough to apply for an arts grant. if, for example, one works in entertainment as well. Thus, boundaries between art and non-art were also shaped by the ways of financing one's living.

Precarious work agency was prevalent among those professionals and artists with a portfolio career, in other words, combining entrepreneurship, employment contracts, and grants. Precarious work agency drew its power from the skills of managing uncertainty and managing with low resources. Therefore, the sudden changes in society and in the employment circumstances of the sector were not as shocking as in sectors with more steady employment arrangements.

> [After the year's end] *no work presented itself and that has been a regrettably common situation for me at the turns of years.* [. . .] *I was already in a situation resembling the Corona crisis when it began, and it didn't have a great effect on my life.*
>
> (man, performing arts)

Small life strategies included saving from a small income which was a popular way to prepare for the insecure future. Many of the cultural workers were not entitled to unemployment benefits and among them were also artists with an international portfolio career, which had caused them to drop out of the national support systems.

> *I am not entitled to unemployment benefits and other economic support,* [although I have paid my share of the taxes and other institutional fees] *because of my international career. I think that is not fair. However, I cannot complain, for I cope in this situation with the savings from the rewards sourced from the events.*
>
> (man, performing arts)

Still, when there were expectations of getting into the process of work, many work plans were severely disrupted. Even though work was not necessarily totally impossible, there was a clear inability to enact one's work fully or sometimes even partially and reach set objectives:

> *I'm in a situation in which I cannot meet my co-workers or go to my research locations where I was supposed to do my work. My work also entails writing, reading, and planning and I've moved on to those activities. But solely by those methods I cannot realize my work the way I had planned.* [. . .] *Getting in touch with real life and with my topic concretely would be essential to achieve a good outcome.*
>
> (woman, visual arts)

In this data extract, the uncertainty touched more upon the content of the artistic work than financial survival. When in some stories the change in agency meant recovery from the shock in the work situation, others struggled with the sense of time and effort lost.

> *The Corona pandemic changed this summer completely for me. Although the planning work (mostly getting acquainted with the text, preliminary meetings etc.) had already started. The situation was expected to clear up but it didn't and the whole production was cancelled for the summer. All the work and energy put into it, preliminary planning, ideas and preparations were wasted.*
>
> (man, performing arts)

After the COVID-19 shock, an opportunity to withdraw and recuperate was also a privilege. This type of small agency was present in stories, where abilities to act were severely restricted but the scope and level of agency could be altered, often led by a change in the focus of one's activities.

As regards creativity, agency could be both sustained and limited. For some, creative work was something they engaged in to survive the restricted circumstances, but for others it proved to be more difficult to carry on:

> *I noticed my creativity was paralyzed in front of fear. The sharpness of thought has blunted* [. . .] *It is difficult to fulfill the criteria for a grant and come up with new productions all the time.*
>
> (woman, visual arts)

Changes in the spatial and temporal arrangements of work and indeed other aspects of people's lives could also provide relief for those whose workload had been heavy before the pandemic, and even more so if they had family responsibilities:

> *Permanent actors in theaters today work like crazy, two times a day, six days a week. Summer months are spent in mental and physical recuperation.* [. . .] *I was astounded for a while [when the children stayed home because of lockdown], but the new everyday*

> *life felt like a relief compared to our normal everyday life. Suddenly nobody was running to get to rehearsals, competitions, gigs, bars or anything. Or course I was temporarily laid off but as a salaried person the union gives back.*
>
> (woman, performing arts)

Gaining space and time meant the opportunity to lighten the future workload by getting back to work tasks that were left hanging because of the otherwise busy schedules, to consume overtime hours, to distance oneself from intense working thus also providing space for thinking and creativity. For example, an artist mused that the "empty phase" she was in was a kind of a precursor for artistic activity. For her, there was a work process one can rely on that will carry one from small agency to the next stage.

3.2. Resources for Work Agency and Changed Methods of Work

To gain and sustain agency needs resources. When burdened with financial concerns and limitations on work agency, cultural workers created structures for their daily lives and tried to find different ways to cope. To work in uncertain circumstances was a skill acquired already before the pandemic and for some this meant an elevated state of agency, where the ability to manage one's time and space were key. Those practicing normative employment agency could find new ways to organize their work. For example, in remote work there could be more autonomy regarding scheduling one's work.

For those practicing precarious work agency, the positive approach was emphasizing the freedom to concentrate on meaningful and significant artistic work or on the development of artistic skills despite the worsening economic situation. The negative approach was related to insecurity about doing unpaid work, particularly if the "calling-based" work required expensive infrastructure. Thus, in a way their activity and passivity were conflicting between the tension of calling and paid work.

> *I could develop my activities and services in my studio* [working on audiovisual services], *which implies updating my instruments and equipment and competence and building new customer relations. However, it is slow, based on competition and, again, outside any economic support.*
>
> (man, musician and professional in audiovisual technologies)

The opportunity to modify one's work or try out new methods was dependent on both the work processes and the type of agency.

However, limiting the state of emergency was for people working in the cultural sector, arrangements that safeguarded their health were also appreciated. From that perspective, new forms of work such as remote work and virtual, digital methods were appreciated.

New methods of working provided a wider scope for agency and could be resources in themselves, when one had wide control over the work processes one was engaged in. Indeed, such issues as virtual performances and galleries were mentioned in the data. These all can be seen as new methods of work in the cultural sector, at least, because the writers mentioned that they had not worked with them before or now commented on their usability in their written texts. The embodied nature of work cast a shadow over the opportunities to realize work agency virtually, as highlighted by this musician who also worked as a teacher:

> *The opportunities for remote teaching with my instrument seem really difficult at first glance, considering that the age range and level of skill vary greatly among the pupils and, with most of, teaching happens almost hand in hand.*
>
> (man, performing arts)

The opportunity to control one's work processes and use time as a resource was also affected by one's family situation. Artists and professionals in the cultural sector are usually presented as individuals with their calling and subjective state of mind and living spheres. However, the relation of paid work/non-paid work and family life came out as a significant frame for the economic situation and working patterns. Boundaries of work and non-work

were crossed when work and family were confined to the same space: schoolchildren were home during the hardest part of the lockdown and smaller children stayed at home during the days instead of going to kindergarten. With the conflicting duties of care and paid/unpaid work, time and space management was a challenge. These conflicting demands on one's time could lead to evaluating one's work agency as inadequate:

> *Being with a small child and running the everyday life, for example preparing the meals for the day, take quite a big portion of the day, and I don't want to burn out. I try to make peace with the fact that I can work only a certain amount in a day but at the same time I continuously wonder whether I am doing enough or get enough done, am I worth the grant* [I've received].
>
> (woman, visual arts)

When applicable, two-parent income balanced the vulnerable economic situation of the artists and professionals in the culture field as their spouses had an employment contract and related income. For one single parent, the situation was different, for she takes every job available, regardless of the quality of work. The family-work relationship was harder for a single parent, for it set a tight frame for her activities and removed the opportunity to exercise preferences.

3.3. Imagining the Future: Holding On or Letting Go of Small Agency

The agency of the artists and other cultural workers was heavily reliant on the possible futures their perspective was attached to. Flexibility was a way to ensure one's future. The written texts displayed both trust in the future and dread of the realization of the worst-case scenario. The uncertainty of the future made the normative work agency more attractive, and a flexible agent was prepared to put current artistic work on hold get employment in another line of work. The disruption of temporal perspectives, due to the first wave of the COVID-19 virus (cancelled gigs, postponed performances) could emphasize small agency but also means by which cultural workers could stretch the limits of agency.

The pandemic contributed to experiences of exclusion or even of being ostracized in ways that made it impossible to plan for the future. When there was little chance of affecting one's immediate situation, a sense of stagnation marked the attempts to act.

Taking the future as a starting point made agency possible for some. It relieved tension from the necessity to act right now or made it possible to let go of the original plan that was based on cultural events being realized at a certain time. This sense of stagnation could at best be overcome by shifting the focus to the future.

Whether it was a more normative type of work agency or precarious, agency was realized as creating structures for the future. It was about coordinated, determined activities that ensure continuation—even when financial compensation was uncertain:

> *I've started two new projects. The first one's drama in a way. The other's strictly writing. I don't know how not to work. It's unlikely I'll get financial compensation for my work.*
>
> (woman, performing arts)

The extract highlights action as a necessity, cultural work as a way of life and work in itself as a means to survive. Other ways of creating structures for the future were applying for funding (grants), making and rearranging plans for the autumn, and engaging in sustainable activities that had low demands on resources:

> *At times I fear that the Corona crisis will be followed by a severe economic depression. However, I invested in equipment before the Corona crisis so a new project awaits and I can realize it on a very low budget. I have faith that this crisis, too, will be overcome.*
>
> (woman, visual arts)

Learning and training skills that support employability were another feature in creating structures for future. Also, restrictions on traditional modes of action made it necessary to find new ways of making art and culture available in concrete and virtual spaces. In all,

creating structures for the future was based on making use of various resources at hand. Also, the disruption of temporal perspectives due to the first wave of the COVID-19 virus (cancelled gigs, postponed performances) meant opening up new possibilities for some of those enacting precarious work agency. When the status quo was shaken, all bets were off and lost chances could also turn into new ones.

The uncertainty of the future made the normative work agency more attractive, and a flexible agent was prepared to put current artistic work on hold get employment in another line of work.

Living the first wave of the COVID-19 pandemic meant inhabiting a liminal space that subverts agency. From the perspective of precarious work agency, the future was open for both negative and positive effects.

> *A 54-year-old freelancer like myself certainly isn't wanted on the job market. Keeping this in mind, my future in working life is extremely difficult. It has started to look as if there are hardly any job offers and in recruitment situations I'm not chosen. Schedule changes caused by Corona may generate work opportunities for me. Time will tell and there's still hope.*
>
> (man, performing arts)

Indeed, the disruption of the normal flow and organization of life could also lead to envisioning alternative futures in a positive sense. There were expectations for a boom of cultural events and for participation in these. Although cultural workers could be forced to find new ways of acting, such new ways could become sustainable when they contributed to artistic agency and work processes. Agency is anchored in the possibility of changing the way of life and in the insight the state of emergency in the society has provided.

> *I see the future of my work as bright in the sense that I believe this crisis will urge us to consider our most basic values again and I hope that our attention is focused on relevant issues. I hope for the slowing down of consumer culture, the reconstruction of ecology.*
>
> (woman, visual arts)

Hope, values, and agency are interconnected: one's agency is tied to promoting one's values and this agency may be a part of work agency or transcend its boundaries, which also ensures the continuity of agency.

4. Discussion and Conclusions

This study on the first wave of the COVID-19 pandemic in Finland addressed the agency of cultural sector workers from the perspectives of time and space including their economic and employment situations. Agency in time and space was contextually defined: past efforts signified waste and loss when there were no opportunities to realize the results of one's work, but, depending on the form of agency, there could be also continuity in the present and independent of the form of agency, also in the future. Each temporal setting stood in relation to others, but future perspectives were the most open and had a strong element of hope despite the circumstances.

The economic and employment situation determined the opportunities for agency in two distinct categories. Normative work agency appeared as intensification of work and self-limitation of agency fueled by the comparatively better situation such as an employment contract or benefit. In practice this meant working harder with no extra rewards and refraining from activities detrimental to the survival of those in more precarious positions at that point in time. Normative employment agency was shaped by the negotiation of the boundary between art and non-art as a tradeoff: steady income, less chance of sticking to one's basic work be it cultural administration or personal artistic endeavors and in the latter case, poorer prospects for gaining recognition and awards as an artist. Intensification of work was also possible because of the new ways of organizing work, such as personal scheduling and other kinds of structuring of people's daily lives. The creation of structures was also a part of precarious work agency that appeared as skills of managing uncertainty

and with low resources already obtained before the pandemic. Also, the ways to cope with the restricted circumstances differed: some felt incapable of doing artistic work, others used art as a way to work through the tough times. This was dependent on the resources available, such as the infrastructure required to enact work agency, on the income of a possible partner and on the chances of managing the boundaries of work and family when family responsibilities intensified.

Our study has relied on the conceptualization of agency, small agency in particular, in the context of precarious work in the cultural sector. To understand the nature of cultural workers' agentic possibility, we aimed to produce new knowledge about the dimensions of agency, especially in relation to time and employment arrangements as described. In line with Åkerblad [36], our analysis showed that employment type is not the only determining factor for feeling of security in working life. A precarious mode of working also affects the meanings of security: while precarious mode of working is not desirable, it does offer a chance or a necessity to halt, endure, wait, act differently, or think over. Åkerblad has pointed out that this means a need to think about uncertainty and certainty in the new ways and to create mental strategies and utilizing various discursive elements to live with the unpredictability and uncertainty. In the future, it would be fruitful to analyze factors that strengthen the understanding how continuity that is embedded in small agency provides opportunities for the new. The emergency hit artists and professionals in the cultural sector hard, but despite that, they felt guilty about having more income than some of their peers or about working insufficiently. The small world mindset penetrated their situation during the emergency. Does the mindset adjust to the worse situation in a way which even decreases the size of the small world? Does it narrow such perspectives that might provide new opportunities in the future? The small world mindset was not, however, a solid and uniform way of thinking and acting, for we recognized small deviations from it, assumptions of being worthy of something better.

However, adoption of the small world mindset is not socially and economically neutral, for risk-taking opportunities are related to resources provided by the economic, cultural, and social background. We assume that the unequal resources may shape the outcomes of artistic work, with the opportunity for free expression. Our data did not provide the opportunity to contribute on this perspective, but we recommend research on social class in studies of cultural work.

The agency during the pandemic followed the common pattern in the cultural sector, in other words, fragmented employment, small income, unpaid work, and insecurity and flexibility. However, the organization of life differentiated to some extent as regards the lock-down and terms for earning their living. The impacts on employment and activities were severe for the individual artists and enterprises, but for municipalities, with their obligation to provide library services and support cultural activities, less so. For the multiple job holders, the assignments were lost and the availability of even non-professional jobs was scarce.

The first wave of COVID-19 had a diverging effect on work agency: for some it meant intensification of work and for others loss of work and job opportunities and hence resorting to small agency. Although these two developments entailed different economic consequences, those with few chances to realize work agency were not merely enduring their circumstances. Small agency could be experienced in many ways, also as a condition that allowed for thinking and paved the way for creativity. Accepting that one could not act now, could also mean considering the future as something that would make change and realizing one's values possible. Conversely, those engaged in intensified work did not necessarily have time to think and take stock of the situation. Following Åkerblad's [36] idea of career hubs, the pandemic made it necessary to find new ways to act either in the short or the long term, depending on the emerging alternatives or the opportunities create new ways of acting. In the data there were examples of this, such as focusing on wellbeing instead of work agency or finding new methods or platforms to realize artistic endeavors. Changing temporal perspectives also made it possible to act or to construct the future

in a way that allowed change to come and one to be a part of that change eventually by following one's values.

Work processes and control over them are central to understanding the applicability of new methods of work among the cultural sector workers. During the pandemic, some found new avenues of work and ways to express themselves artistically, while others struggled not only with the accessibility of skills but also with the very nature of work that may be incompatible with remote work or virtual settings. It would be beneficial for future research to engage in the premises of different types of cultural work and forms of art, on the platforms and in the contexts they are realized, in relation to the discussions on the future of work to understand the possibilities and limitations.

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Article

Professionals' Views on Challenges in Inpatient Substance Abuse Treatment during COVID-19 Pandemic in Finland

Eeva Ekqvist [1,*], Tuija Karsimus [1], Arja Ruisniemi [1,2] and Katja Kuusisto [1]

[1] Faculty of Social Sciences, Tampere University, 33100 Tampere, Finland; tuija.karsimus@tuni.fi (T.K.); arja.ruisniemi@samk.fi (A.R.); katja.kuusisto@tuni.fi (K.K.)
[2] Department of Health and Welfare, Satakunta University of Applied Sciences, 28130 Pori, Finland
* Correspondence: eeva.ekqvist@tuni.fi; Tel.: +358-504377120

Abstract: The pandemic caused by COVID-19 (an acute respiratory illness caused by a coronavirus) has had harmful effects on people in need of special support. People with problematic substance use are recognized as such a group. The pandemic has raised the need for sufficient treatment and services during these unpredictable conditions. At the same time, it poses severe challenges to their production and provision. The purpose of the study was to use content analysis to qualitatively examine Finnish professionals' (N = 22) views on (1) the challenges posed by COVID-19 in working in inpatient substance abuse treatment, (2) how these challenges have been addressed, and (3) what the consequences of the challenges and the solutions to them are. The findings confirmed that COVID-19 has caused drastic changes in the organization of treatment and daily practices. Professionals experience challenges in preventing infection from spreading into and within treatment units. They also describe difficulties in applying social distancing in treatment that is based on therapeutic communities. The pandemic has also challenged communication and co-worker support among professionals. These challenges have led to practical solutions that, in turn, have their own consequences for treatment practices. We conclude that the quality of treatment has to some extent been impaired because of the pandemic.

Keywords: COVID-19; inpatient; substance abuse; treatment; professional; Finland

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1. Introduction

People referred to inpatient substance abuse treatment (also known as residential treatment) often experience severe social, psychological, and physical consequences of their alcohol, drug, or prescription drug dependencies. In such cases, outpatient treatment has been considered insufficient, and more intensive support is needed to help patients in their complex life situations. During treatment, professionals seek to help patients to achieve improvement in various life domains, such as intrapersonal well-being, social relationships, and life functioning [1–3]. In substance abuse treatment, an effort is made to identify the root causes of problematic substance use and to find alternative action models using, for example, cognitive-behavioral methods [4,5].

Since 2019, the pandemic caused by COVID-19 (an acute respiratory illness caused by a coronavirus), including the social distancing that it has caused, has affected all these domains of patients' lives (see, e.g., [6,7]). Professionals have highlighted the severity of the harmful effects of the pandemic on people with problematic substance use. According to Marsden et al. [8], the pandemic may have exacerbated addictive behavior, relapses, loneliness, depression, and even suicidality, which raises the need for sufficient treatment and services during these unpredictable conditions.

Previous research indicates that professionals' work-related satisfaction in the field of substance abuse treatment is positively influenced by patients' opportunities to pursue their goals and choices [9]. The pandemic has limited these opportunities, and professionals

have been facing new challenges due to patients' worsened situations. At the same time, previously successful treatment interventions and methods have been unavailable for use. In inpatient treatment settings, close patient contacts with professionals and other patients have been reduced where possible, and visiting hours have been limited or canceled in order to prevent COVID-19 from spreading in treatment units. Additionally, in-person mutual help groups, such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) (see [10]), which offer a place for peer support alongside the professional help received in inpatient treatment, have been inaccessible or highly limited [6,11–15].

In addition to these therapeutic aspects of working in inpatient treatment, other dimensions of daily practices have changed. Staff meetings, both official and unofficial, and contacts to other treatment units and patients' networks have changed from face-to-face meetings to online or telephone meetings [15]. Digital stressors and technostress (see, e.g., [16]) are now present more than ever for professionals working in inpatient treatment settings. Many professionals working in social and health care organizations still require significant support regarding digitalization and teleworking, despite improvements in associated practices [17].

Working in the substance abuse field is challenging even without the effects of the pandemic. Emotional exhaustion; mental health issues such as secondary trauma, stress, and burnout; and high turnover intention rates (i.e., one's attitude to quitting the job) have been widely reported [18–22]. Organizational and management practices and an overall rewarding, positive, and respectful work environment play a crucial role in supporting professionals in coping with their workloads [22,23]. In inpatient substance abuse treatment settings, support from various sources at work, such as colleagues and supervisors, helps professionals to successfully carry out their work. When patients are part of the treatment community and take part in the daily practices of the treatment unit, they may also be a source of support for professionals [24–26]. However, because of social distancing, professionals are facing new challenges in supporting each other and patients.

Due to the recent advent of the pandemic, there are only a few scientific papers that address the actual impacts of the COVID-19 pandemic on inpatient substance abuse treatment [12,14,27]. According to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), European service providers across drug services (i.e., outpatient and inpatient treatment and harm reduction services) have encountered several COVID-19-related challenges. At the beginning of the pandemic, access to personal protective equipment (PPE) was not at an adequate level leading to concerns about professionals' vulnerability to infection. Service providers have reported having staffing shortages and problems in enrolling new patients, and they worried if people in vulnerable situations received information on COVID-19 and had access to hygiene-related services and services using telecommunication [28]. In this article, we examine professionals' views on (1) *the challenges caused by COVID-19 in working in inpatient substance abuse treatment*, (2) *how these challenges have been addressed,* and (3) *what the consequences of the challenges and the solutions to them are*. As the evolution of COVID-19 is still unpredictable, research is needed to improve treatment practices in arenas traditionally characterized by close contacts with patients and other professionals.

The rest of this article is organized as follows: first, the research design is described. The results of the research are then presented and later discussed with the conclusions and suggestions for the future research.

2. Materials and Methods

2.1. The Research Units and Their Core Practices before COVID-19

This study was conducted in two inpatient substance abuse treatment units located in Finland as a part of a research project entitled *Change in patient's well-being and rehabilitation activities in inpatient substance abuse treatment*. The treatment units provide non-medical, therapeutic, community-based treatment for both individuals and families. Treatment periods usually last from one to three months, but for families they may be longer. Munici-

palities bear the majority of the treatment costs, and referral to treatment usually originates from public health and social services.

In treatment units, professionals from the social or healthcare professions apply cognitive behavioral therapy; i.e., the focus is on providing information about recovery, relapse, and behavioral patterns in order to achieve change in problematic substance abuse. Therapeutic communities are both a way of organizing daily practices during treatment (i.e., cooking, cleaning, etc.) and a therapeutic method including group sessions in addition to individual sessions with professionals. Patients are also encouraged to take part in AA or NA groups during and after their treatment.

Patients in individual treatment share bedrooms, bathrooms, general living, dining, and leisure areas either with their treatment group members or with all patients in the unit. Families in treatment live in an apartment in a terraced house located in the treatment unit's yard area, but therapy sessions and leisure activities usually take place in communal areas. Children are provided with either daycare in the unit's kindergarten or schooling in the local state school depending on their age. One key element in the treatment is practicing coping methods at home or visits to public arenas such as grocery shops. These exercises are needed in order to see how patients cope outside the treatment unit. Contacts outside treatment are also important in terms of supporting family relationships and organizing living conditions after discharge.

2.2. Data and Participants

The data were collected through semi-structured focus group interviews (n = 9) in two inpatient treatment units in December 2020 and January 2021. In total, 22 professionals either from health or social services (n = 17), administrative staff (n = 3), or supporting professionals (such as maintenance and catering staff, n = 2) took part in the interviews. Their experience of working in the treatment units ranged from three months to 26 years, and their age varied from 24 to 65 years. In the interest of anonymity, more specific information about them was not collected.

Two researchers of the research group conducted and recorded the interviews via Zoom. The interviews lasted from 50 to 90 min and resulted in 125 pages of transcribed text. Interviews followed roughly a thematic interview frame including questions on how pandemic had affected the patients' opportunities to enter treatment and their wellbeing at entry, how practices and the treatment provided had changed in the treatment unit, and how aftercare had changed. More detailed information on interview themes can be seen in Table 1.

In this article, we focus on how practices in the treatment unit changed and professionals' descriptions of solutions arrived at this changed and challenging situation. The interviews were somewhat retrospective in nature, as the questions concerned spring 2020, the first wave of COVID-19. However, after summer 2020, the same restrictions were reintroduced as the second wave was emerging. Thus, our interviewees discuss not only the situation when the first wave hit but also their experiences in late 2020 and early 2021.

Research permission was obtained on 15 December 2020 from the background organization of the treatment units. Participants' consent was requested after they had been informed about the study. They were free to withdraw from the study at any stage. The research complied with the guidelines of the Finnish codes of research ethics and governance [29,30] and with the codes of research integrity in Europe [31].

Table 1. Themes of the interviews.

Themes	Sub-Themes
Gaining access to treatment	Numbers of patients Parties making the referral Changes in queueing systems Working with risk groups

Table 1. *Cont.*

Themes	Sub-Themes
Patients' states of health on arrival in treatment	Changes in substance use Physical and mental well-being Changes in life situations Changes in treatment plans
Special arrangements from the perspective of work	Working in critical times Changes arrangements and their effects on working and activities Sick leaves
Special arrangements from the patients' perspectives	Changes in interaction between patients and personnel and among the personnel Patients' attitudes Living in a treatment community Negative and positive effects
Isolation	Limiting visits Limitations in arranging group work and meetings with parties outside the treatment units Reduction of therapeutic leaves
Discharge	Planned implementation of treatment Follow-up treatment plans
Things learned from the experiences of the previous spring	

2.3. Analyzing Method

Qualitative analysis of the data was conducted using content analysis [32] with Atlas.ti (version 9; Scientific Software Development GmbH, Berlin, Germany). The analysis started by carefully reading through the transcribed interview talk multiple times. The focus was on sections where professionals described either challenges in organizing and providing treatment caused by COVID-19 or how these challenges had been or should have been met. Then, we analyzed the consequences the professionals attributed to these challenges and solutions or the lack thereof. Our analysis was more focused on interpreting and understanding rather than quantifying. We identified three major challenges labeled as (1) prevention of COVID-19, (2) applying social distancing in inpatient treatment based on therapeutic communities, and (3) communication and co-worker support among professionals. Some of the challenges had multiple solutions, and some remained to some extent unsolved. Their consequences have also been considered. Excerpts are presented to illustrate professionals' talk addressing both practical and therapeutic issues. These challenges and their solutions are somewhat intertwined and overlapping, but they also have distinguishing features, which are discussed next. In each excerpt, W = woman and M = man, and I = interview with the number of the interview (1–9).

3. Results

3.1. Prevention of COVID-19

Living in a treatment unit with other patients coming to treatment from different regions of Finland for different time periods constitutes a risk of contracting COVID-19 infection for both patients and professionals. This necessitated preventive and quarantine protocols. Ways of preventing COVID-19 from spreading in the unit include (1) using personal protective equipment (PPE) such as face masks or shields, (2) sanitation of surfaces, (3) quarantine while waiting for COVID-19 test results, and (4) social distancing in all treatment and daily practices.

Using personal protective equipment, PPE, is the "new normal" in the treatment unit in situations where at least two people are present in the same room. This has led to new ways of meeting patients entering treatment:

> *"When the new patient comes, I try to constantly watch for his arrival from the windows. When he arrives, I run to meet him at the parking lot. I approach him without a mask, just to give him the glimpse of a person behind the mask. At intake there is a pretty long interview and so on, so if there's a strange person and behind a mask all that time so... I don't know what kind of effects it has on the patient, who is quite often timid also. But I find that even an opportunity to see the faces, even a glimpse of that person you meet here—I think it's important."*
>
> (W3 in I2)

The need for inpatient treatment may produce mixed emotions in patients such as shame, guilt, and sadness, but hopefulness and empowerment may also emerge, as the patient is taking steps to recovery. In this delicate situation, meeting the patient without a mask is crucial. This may help patients to feel more welcome and ease the integration with the treatment. The professional in question had changed her behavior in order to ensure a safe first meeting with the patient by wearing no mask and greeting the patient outside.

Using PPE may cause physiological symptoms such as "difficulties in breathing, you get tired, suffer from headaches, it makes you sneeze" (W1 in I9). Professionals may feel not only physiological but also emotional consequences of using PPE with patients:

> *"When I meet very anxious or even slightly psychotic patients, it makes me feel like I'll take my mask off because that person is already anxious enough. I haven't taken it off, but when that person is so anxious and even somewhat paranoid and ready to suspect everything . . . In these situations where you're talking about psychic morbidity or . . . , so I see a risk, even a challenge there. I mean, how the patient perceives [mask use] tangibly. I need to say at least, that it is not pleasant to wear the mask. In addition, it certainly affects my own coping..."*
>
> (W1 in I2)

As mental health issues often appear with problematic substance use, professionals meet patients who may be psychotic, anxious, or otherwise in a distressed state. Barriers to viewing professionals' facial expressions can increase fear and paranoia in their patients, which may lead to potentially unsafe or challenging situations. Using PPE conceals many of professionals' (but also patients') non-verbal cues such as facial expressions; thus, using eyes and eyebrows, as well as appropriate body postures, is needed more than without masks in building a therapeutic alliance. Using a mask can take a toll on professionals' coping, as ethical considerations of using a mask and both physiological and emotional consequences and the need to use different ways of communication arise on a daily basis.

Not all prevention measures taken are negative; they may also have a positive impact on relationships between patients and staff:

> *"When we clean these surfaces twice a day, then I think it's both fair and good practice that both employees and patients are involved in it. So, it's not only the patients who take care of the surroundings. We will participate all together in this communal effort."*
>
> (W2 in I3)

In treatment units, patients take part in daily practices such as cleaning and cooking. Due to COVID-19, the need to sanitize surfaces multiplied, thus increasing patients' workload. However, the staff decided to take part in cleaning to show companionship with patients. Preventing COVID-19 is a mutual goal for patients and professionals: "We are in this together" (W2 in I6).

Flu symptoms before or during treatment necessitated COVID-19 testing and quarantine. As the treatment units in question had no such testing facilities, they had to arrange safe transportation from units to the local testing facility. During the waiting period, patients were placed in quarantine in a quarantine area, or if they were in family treatment, the family was in quarantine in their apartment. As the pandemic has continued for a long period of time, new testing and quarantine protocols and measures have become normal practices:

> *"There is a certain room reserved for quarantine situations. At first, when there was someone there, our patients where like "bloody hell, now there's someone!". And now it's just that "oh, now there's someone isolated again" [laughing]. Now it makes me laugh. Well, this is a serious issue, but it shows how our perception of normal change."*
>
> (W1 in I2)

In early 2020, placing someone in quarantine evoked mixed feelings in both patients and professionals. Over time, patients and professionals have become more accustomed to someone being isolated from others. However, when patients in therapeutic communities change, experiences may differ:

> *"When one of our patients went to an isolation, right after the whole community was thinking what if it's corona and at least I belong to a risk group. It was like a panic if it's corona."*
>
> (W1 in I9)

Professionals and patients with longer treatment periods play an integral part in providing informational and emotional support in these situations, where fear of COVID-19 threatens to disrupt the dynamic of the treatment community and treatment: "You noticed how important your own calm attitude towards that unexpected situation was for your patients" (W3 in I2). In addition to using PPE and creating protocols for testing and quarantine, social distancing was adopted into daily practices. This entailed rethinking and reorganizing social events such as dining, group sessions, leisure activities inside and outside of the treatment unit, and smoking, where patients from different therapeutic communities used to encounter each other:

> *"Mealtimes are staggered, so that the communities spend as little time as possible in the canteen at the same time. We have appointed certain tables, where each community eats. So there is no sitting at the same table. There are no simultaneous group activities, but each community carries out its weekly programme by themselves in their own communities. The city has closed recreational facilities, so there is no chance to do such things in your spare time. [—] In the smoking area situated outdoors, patients from different communities may visit at the same time, but there are instructions, tags on the post, reminding them to keep a safe distance."*
>
> (W3 in I2)

Social distancing was required not only of patients and professionals in the treatment units but also of patients' family members and friends. Visiting hours in the treatment units were limited, but new ways of incorporating family members were created:

> *"We wanted to make patients' close ones a part of their rehabilitation process. But now all such meetings are held over the phone or Teams. So, it effects that you do not meet your loved ones face-to-face. We can't allow visitors other than patients' children. Only underaged children can visit."*
>
> (W1 in I9)

Even though meeting via Teams or other online meeting applications was deemed not as good as meeting face-to-face, it is still better than not meeting family members and close friends at all. With long-distance relationships, telecommunication is a viable solution in supporting patients' constructive and meaningful relationships even after the pandemic.

Opportunities for therapeutic leaves were under strict consideration, but they have been seen as an integral part of longer treatment periods. Usually, therapeutic leaves are carefully planned in terms of practicing coping skills, but a new aspect emerged due to COVID-19: "Patients have also had to plan [therapeutic leaves] in that way and consider in advance for example about the number of contacts they will have during home training" (W2 in I6). Thus, therapeutic leaves would still have been possible if deemed necessary and carefully planned with COVID-19 in mind. However, with changing regulations in different parts of Finland and changes in the incidence of COVID-19 infections, patients

may have been in situation where therapeutic leave for one patient was possible and for others not.

All in all, preventive measures were successful in the treatment units in question; COVID-19 did not spread in the units.

3.2. Applying Social Distancing in Inpatient Treatment Based on Therapeutic Communities

In treatment based on therapeutic communities, social distancing is a drastic change not only in organizing practical issues but also in the ideology behind treatment and the treatment methods used. In therapeutic communities, interaction between patients is central as the aim is to help each other and to learn from others. During treatment, patients are part of their own group, a therapeutic community, and they are encouraged to take part in peer support groups (AA or NA). Patients also take part in other group sessions in the treatment unit, such as the relapse prevention group, which aims to increase awareness and build coping skills to reduce both the likelihood of relapse and its severity if it does occur, and the parenting group, provided to support patients in parental issues. Applying social distancing led to limiting access to group sessions:

> *"Before the pandemic, [parenting groups] had participants from throughout treatment unit, so that those participating individual-based treatment could also participate. Now these groups have been solely for participants in the family-based treatment and parenting groups have not been offered to others. Something is probably lost there; patients in other communities lose the opportunity to participate in parenting groups. Then because of the smaller group of participants, probably some knowledge sharing will be lost compared to what a bigger number of participants could bring to it. On the other hand, parenting is such a sensitive area that there's also a lot of good things in it that those groups are only for those patients in family-based treatment."*
>
> (W2 in I6)

Limiting access to group sessions to certain patients only may put patients in unequal situations. Sharing experiences and views is central in therapeutic communities, and minimizing group sizes also restricts the variety of conversations. However, this solution may also have positive effects on group dynamics in dealing with delicate issues.

Professionals in the treatment units have different kinds of skill sets in arranging therapeutical group sessions. When therapeutic communities have been separated from each other, professionals are also separated from other communities. This has led to a situation where quality of the treatment may be lower than before:

> *"We don't have a person in every therapeutic community who knows how to lead a Relapse Prevention group (RP group). [—] It's different for patients then and the quality is not so good if the worker is reading the manual of what I need to do next. That's it. Or what tasks should be done, without knowing their purpose or how this is related to relapse prevention. [—] What gets me is that, according to feedback, the RP group is our most popular group ever here."*
>
> (W2 in I9)

Social distancing has revealed possible deficiencies in professionals' abilities to perform in different therapeutic situations. If these are recognized and properly addressed, professionals will receive the education they need, and in the future, professionals will be better equipped to apply different treatment methods if needed.

Patients are encouraged to take part in peer support groups in addition to their inpatient treatment. Due to COVID-19, peer support groups all over the world have strictly limited participants, cancelled their activities altogether, or moved to online environments. As peer groups are considered an important support for professional treatment, patients have been motivated to host their own AA or NA meetings in their treatment units or to take part in online meetings:

> *"It's that you have found [peer support groups] in China and England and everywhere. And one thing we have noticed that has been increasing is this GA [Gamblers Anony-*

> *mous], that is, groups for people addicted to gaming. [—] It has added to patients' knowledge when they have found out that they also have gambling addiction."*
>
> (M1 in I7)

Taking part in online meetings has extended the range of options in terms of both availability of groups at different times of the day and themes discussed. Having behavioral addiction alongside substance abuse may come out during the treatment; thus, GA groups bring extra support for those patients in need of it. As face-to-face meetings have been limited to members of the respective therapeutic groups, online meetings serve the purpose of seeing and hearing from others outside the treatment.

3.3. Communication and Co-Worker Support among Professionals

COVID-19 has increased the need for communication and co-worker support among professionals. Informational support, such as gathering and sharing information, is extremely important in situations that are new and where multiple changes happen at the same time:

> *"In spring, when [COVID-19 pandemic] started, it was just as chaotic. There was no preparation at all, there was no operating plan, or any instructions being prepared. As a matter of fact, none of us knew anything. [—] At some point it was, of course, easier, preparations could be made, and restrictions imposed by the hospital district, the government and the like were more aligned. [—] And the hospital district and regional state administrative agency outlined more carefully and more clearly what the constraints are."*
>
> (W2 in I4)

Providing inpatient treatment is highly regulated even in normal settings, and when drastic changes happen at national and global levels, professionals expect clear guidance from national social and health care authorities. The treatment units in question, and also the national decision-making bodies, were caught off guard in terms of clear guidance and protocols for organizing daily practices and treatment in inpatient treatment settings during the global pandemic.

In order to make changes happen, information should flow from the national level to the treatment units' administrative staff, then to the professionals conducting treatment and support tasks, and finally to patients. This multilayered dissemination of information is prone to informational gaps, and the change in communication from face-to-face meetings to telecommunication has not helped it:

> *"There are misunderstandings, no information is passed on. We are always in different groups and at different meetings just like before, but we discuss less than before of how we have understood the things at hand. When there [at the computer] you might do something else and then you will exclude things at that point. The information is not conveyed the same. Quite a lot is not understood, or is misunderstood, or information doesn't get through."*
>
> (M1 in I4)

Information gaps between professionals were also noticed by patients: "There is no consistency and clarity with us, the staff, so to our patients it really matters a lot and creates uncertainty among them. Additionally, they are able to exploit it" (W2 in I4). Better communication and documentation of meetings lead to similar practices and rules in all treatment communities; thus, fewer negotiations and experiences of unjust treatment emerge. For better communication within treatment units, professionals discussed a need for a new etiquette when online meetings are used: "We've taken a digileap, and in a way, things are running. However, we are not on a mode to keep our cameras on, or that each of us comments something or gives some response such as giving a thumbs up or thumbs down sign, or to give any reaction to what another one is talking or telling you about, or responding when we're trying to make a decision" (W3 in I3). Online meetings often focus

on particular themes or issues and opportunities for sharing personal experiences and changes in one's life, and other unofficial discussions are left aside:

> *"When the corona pandemic started, it probably was a really scary thing for many people and even in their personal lives it caused a lot of new things, such as your kids were at home [distance education or away from day care] and the spouses might have been laid off. And then this malaise might erupt here at work. This effects a lot. And when we don't see each other, the sense of community among the staff disappears. You get in touch with each other through these faceless online tools."*
>
> (W1 in I3)

Professionals' personal lives have also been affected by COVID-19, which may sometimes spill over to the workplace; in addition, stressors from work may affect professionals' personal lives.

> *"One can't help thinking that it creates a feeling of being outside when you don't see each other or are not able to chat. Also other things than when it comes to work. When having coffee or in the canteen, it has always been such a nice moment during the day when you have been able to discuss whatever comes up. But now, when we cannot do that, it's pretty burdening and stressing. A lot of things remain to be contemplated at home too, then."*
>
> (W2 in I9)

The need for emotional support is eminent in the data; however, in the interviews the professionals said nothing about how this need could be addressed in the workplace. Lack of proper ways to have informal discussions and see each other has produced experiences of loneliness and has divided the professionals' unity.

4. Discussion

Inpatient substance abuse treatment is characterized by close contacts between professionals and patients. COVID-19 has caused drastic changes in organizing treatment and daily practices, and in this article we examined professionals' views on (1) *challenges caused by COVID-19 in working in inpatient substance abuse treatment*, (2) *how these challenges have been addressed*, and (3) *what the consequences of the challenges and the solutions to them are*. Results are summarized in Table 2.

The first and most important challenge was preventing COVID-19 infection from spreading into and within the treatment units. Solutions to this challenge are widely recognized and endorsed: using personal protective equipment (PPE), sanitation of surfaces, implementing COVID-19 testing and quarantine protocols, and applying social distancing [6,14]. According to EMCDDA [28], no outbreaks of COVID-19 were reported, as was the case for example in some treatment facilities for the elderly in some European countries, even when people abusing substances have been identified as being at high risk of COVID-19 [33].

Concerns about unintended consequences due to hastily implemented adaptations in normal working practices in different treatment settings were voiced [28]. In our study, professionals shared their experiences of the negative physiological and psychological effects of using PPE and ethical considerations of using masks with distressed patients; see also [34]. While COVID-19 testing and quarantine protocols evoked mixed emotions in both patients and professionals, sanitation of surfaces produced a concrete and practical way of combatting COVID-19 together when both patients and professionals took part in these measures. In the treatment units, the need for social distancing caused rethinking and reorganization of daily practices and social events [14], which led to the second challenge.

Applying social distancing in inpatient treatment based on therapeutic communities proved somewhat problematic. This challenge especially concerned treatment methods used in treatment units and peer support groups. Limiting the availability of treatment methods and restricting group sizes produced unequal opportunities for patients to take part in therapeutic group sessions. Additionally, communication within sessions changed,

as there were fewer participants to voice their views and experiences. When therapeutic communities were separated from each other, the professionals in one therapeutic community were separated from those in other communities. This led to a situation in which professionals did not necessarily have the means to provide certain services for patients that usually have been provided to all patients in the treatment unit. Thus, the quality of treatment was to some extent impaired. When patients are isolated in their own groups instead of getting peer support from a larger group of patients, from family members, and from the other significant others, some essential social elements of the treatment are lost. Professionals also described their feelings of stress and lack of clear instructions, especially at the beginning of the COVID-19 pandemic, and this affected their work and relationships with patients. The relationship between patient and worker is one of the key elements in treatment, and the interviewees felt that the communication with patients had suffered. Overall, the drastic reduction in support, supervision, and communality may have impaired the patients' commitment to treatment and motivation, which in turn could lead to poorer outcomes in rehabilitation. While it is natural that professionals' skillsets vary, it is necessary to either educate professionals in different treatment methods or relocate professionals in such a way that therapeutic communities can apply all the necessary methods even when isolation of therapeutic communities is needed. Opportunities to learn new therapeutic methods or tools may enhance professionals' well-being at work [35] and also improve treatment quality.

Table 2. Challenges, solutions, and their consequences.

Challenges	Solutions	Consequences
Prevention of COVID-19	Using personal protective equipment (PPE)	Ethical consideration Physiological and psychological affects Communicational challenges
	Sanitation of surfaces	Sharing increased workload
	COVID-19 testing and quarantine protocol	Dealing with mixed emotions
	Social distancing	Changes in daily practices and treatment methods
Applying social distancing in inpatient treatment based on therapeutic communities	Limiting treatment methods and group sizes	Unequal opportunities Greater dependence on own therapeutic community
	Telecommunication in peer support groups and other meetings	More possible groups and members
Communication and co-worker support among professionals	Clear guidelines	Fewer negotiations and feelings of injustice
	Creating supportive telecommunication practices	Better information flow
	No solution for ways to enhance co-worker support among professional	Lack of unity

Previous research has revealed that a combination of professional treatment and peer support is more effective than either alone [36,37]. Thus, the limitations of peer support groups during COVID-19 may also impair the effectiveness of treatment provided in inpatient units. The opportunity to take part in online peer support groups in inpatient treatment enhanced patients' chances to share experiences and opinions with people outside treatment, even abroad.

The third challenge, communication and co-worker support among professionals, also arises from social distancing regulations. In the midst of the COVID-19 pandemic, professionals were in a situation where patients' circumstances deteriorated, treatment methods were curtailed, work-related practices changed, and life in general was overshadowed by COVID-19. Inpatient treatment organizations need to create new ways to enhance support-

ive communication between professionals and different therapeutic communities. Even in normal settings, professionals in substance abuse treatment may feel emotional exhaustion, stress, burnout, and wish to quit the job (e.g., [18–22]). Thus, overall, rewarding, positive, and respectful work is needed in supporting professionals with their workload [22,23]. Informational and emotional supports are commonly provided concurrently in jobs with high emotional labor [38]. To achieve better communication and unity during the isolation of the therapeutic communities and the professionals within them, new measures such as telecommunication etiquette are needed. This helps in disseminating information to all professionals and therapeutic communities, leading to similar practices and fewer negotiations with patients feeling they are being treated unfairly. Professionals also voiced a need for unofficial communication for sharing personal issues with each other. However, they did not propose any solutions to this challenge. Perhaps this is something that is as yet unresolved and requires necessary actions.

COVID-19 has compelled workers to adjust to new modes of action consistent with health safety. Some of these, for example, the increased use of distant connections and digital tools, proved useful by introducing flexibility into scheduling meetings and reducing the need for travel. Management, however, should be alert to the constant need for technological support as workers, tools, and software change from time to time [15].

There are some limitations in this study: it is important to note that this study was conducted with a relatively small number of professionals in two inpatient substance abuse treatment units in Finland. As not all professionals in the organization were interviewed, our sample may not be representative. However, we included in our study members of the administrative staff, professionals conducting the treatment, and supporting professionals. Thus, we elicited information on COVID-19 related challenges from different points of view.

Further research is still needed in challenges in inpatient substance abuse treatment due to COVID-19. As the pandemic is like a recurring wave phenomenon [39], further research could focus on how addiction professionals and treatment organizations have evolved the level of preparedness for future disruption during pandemic waves. Future research could examine which of the new working methods and ways of communicating have proven viable in the usual daily routines. In this article, we examined professionals' views. The next step could also be to hear from the patients: how has the treatment changed from their point of view? What is the best practice and what should be avoided in the future if such a pandemic as COVID-19 should hit us again?

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Article

Remote and Technology-Based Dialogic Development during the COVID-19 Pandemic: Positive and Negative Experiences, Challenges, and Learnings

Sirpa Syvänen [1,*] and Kaija Loppela [2]

[1] Work Research Center, Faculty of Social Sciences, Tampere University, Kalevantie 4, 33014 Tampere, Finland
[2] School of Health Care and Social Work Seinäjoki, Seinäjoki University of Applied Sciences, Kampusranta 11, 60320 Seinäjoki, Finland; kaija.loppela@seamk.fi
* Correspondence: sirpa.syvanen@tuni.fi; Tel.: +358-40-1901315

Abstract: This study aimed to analyze the challenges, learning experiences, and effects of the COVID-19 pandemic in a social, healthcare, and special education development project financed by the European Social Fund. The theoretical framework of the project relied on the theories of dialogic development and leadership. The method was participatory action research using data collected from various assessments and a questionnaire. Reports of neutral, negative, and positive experiences among two participant groups of the project—the implementers and pilot organizations—in remote work, devices and applications, and remote and technology-based development processes, were recorded. Both participant groups reported increased pressure at work, social isolation, professional loneliness, and improved work control and efficiency. The pilots have learned the development method, and development has been able to continue by utilizing technology despite the pandemic. Development through technology was more difficult, and new dialogic interaction tools have been created. The project was most effective with regard to leadership, teams, renewal, and information flow. There is a need for wide-ranging dialogues with various working life actors when outlining the ways in which future work will be carried out and to reflect on how remote work, technology, and digitalization affect well-being at work, social relations, and leadership.

Keywords: dialogic development; participatory action research; remote and technology-driven workplace development; well-being at work; productivity; renewal; multi-actor assessment

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1. Introduction

Workplaces all over the world have had to adjust to new ways of working in contexts in which new technology, devices, and applications play an important role. De' et al. [1] studied and presented possible scenarios for the digital surge and the accompanying problems. Digitalization is leading organizations to work from home. Remote work raises important issues, such as work allocation, collaboration, motivation, leadership, work overload, pressure at work, and presenteeism. Well-being at work might also be negatively affected by issues related to increased technostress. Miele and Tirabeni [2] studied how employees use and incorporate digital technologies into their daily lives from the point of power and control.

The motivation for the study stemmed from the authors'—experienced action researchers—desire to assess how the COVID-19 pandemic (the Pandemic from here on) has contributed to the implementation of a participatory action research (PAR) development project (Project from here on), which has collaboratively developed organizations in the social, health, and special education sectors during the Pandemic. The Project is funded by the European Social Fund (ESF)/The Finnish Ministry of Social Affairs and Health as a four-year (2019–2022) development project, being nationwide and implemented in nine provinces in Finland. The levels of organizational development are nationwide,

regional, and organizational. The consortium implementing the Project consists of two universities, two universities of applied sciences, and seventeen municipal and three private organizations (hereinafter pilots). The Project staff consists of 16 experts (e.g., senior researchers, principal lecturers, lecturers, and workplace developers), each responsible for their pilot organizations. There are 20 pilot organizations from the public (16) and private sectors (4), which provide elderly (8) and child, youth, and family welfare services (e.g., child protection and family services (10) and special education (2)). The common development goals of the Project are to improve and apply meta-skills related to dialogue, reflection, resilience, and technology, while improving the leadership and development of well-being and occupational safety. The development targets, structure, methods, and tools were recorded in the joint, official ESF/EURA2014 Project plan (December 2018, duration 2019–2021), which provided the funding to the Project's consortium. The development targets and activities of the Project have been tailored to each pilot organization.

One of the key features of PAR is that it considers and reacts immediately to various changes in the operational context [3–5]. The Project started in 2019, barely one year before the Pandemic began. The key groups (Staff of the Pilot organizations and Staff of the Project) of the Project faced the surprising and rapidly changing situation in the spring of 2020, as the Pandemic began. Restrictions were imposed in March 2020, and the Pandemic affected the implementation of the Project from March 2020 to August 2021, a total of 18 months (hereinafter, the COVID-19 phase). In this changed situation, two pilot organizations stopped participating in the Project, and two new pilots started. In addition, the duration of the Project was extended by one year, with a changed application submitted to the funder in June 2020. Technology and digitalization play a significant role, because the project's organizations as well as the implementation staff (Project staff from here on) started to work and interact remotely during the Pandemic. In terms of Project implementation, the greatest challenges and difficulties have been caused by the long-term restrictions on movement and assembly as well as the remote work recommendations imposed by many different authorities and organizations to ensure health safety. Other considerations included the Pandemic guidelines and constraints by the four implementers of the Project as well as the 20 pilot organizations involved in the development work (i.e., the service units, workplaces, professional groups, and teams).

By its methodological nature, the development approach of the Project is holistic, collaborative, concept-driven, and research-assisted [3,5–9]. The key principles of the development method are the cooperation of different parties, the principles of democratic dialogue [3,5,7,9], and dialogue [10,11], and conventionally it has been based on immediate interaction and organizational learning spaces [4,9,12–14]. Before the Pandemic, the dialogical development method and development structure of the Project (hereinafter, *traditional phase*) were to be based on the direct interaction and dialogue of different parties through face-to-face meetings and development events. Meetings, multi-professional development groups and encounters, physical, social, and mental dialogue spaces, as well as activating and participatory tools and methods played a key role. [9] The theoretical-methodological framework of this concept-driven [15,16] and research-assisted organization development Project (Figure 1) relied on the theory of dialogic leadership, organization, and development [12,13].

The theoretical framework used the quality of working life questionnaire of dialogic leadership model (see Figure 1) have been applied and tested in several Finnish PAR projects [12,13,17], in which democratic dialogue and the principles of dialogue [10,11,18] have played essential roles. In the theoretical framework, the four contextual and individual core factors, collaboration and dialogue, motivation, control of work and skillfulness, and renewal (including learning, creativity, and development), fill those essential roles and have an initial impact on work productivity and satisfaction before affecting performance (including economy, productivity, and effectiveness), innovativeness, and quality of working life through participatory leadership and collaborative organization structures. In dialogic development, the four main principles of dialogue—listening, respecting, voicing,

and suspending—are applied. Generative dialogues [10,11] require dialogic capabilities, critical reflection, and an open and confidential conversation culture [13].

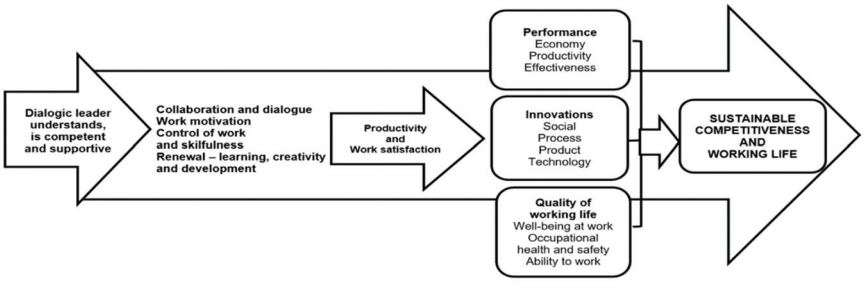

Figure 1. The multidisciplinary framework of dialogic leadership and development (adapted and modified from [12]).

The nature of the study was evaluation research, i.e., program evaluation, and the process and project evaluation included various techniques, methods, and models suitable in the pandemic context. The Project participants' performance in this study was targeted in three different phases: (1) traditional or conventional (traditional hereinafter), (2) transition, and (3) COVID-19. The participant groups of evaluators were: (1) the pilot organizations—the entire staff of the 18 pilots, including employees, various vocational professions, and superiors working at various hierarchical levels; and (2) OD practitioners, i.e., the Project's staff (hereinafter the Project staff, 16 persons). Qualitative and quantitative materials were collected through quality of working life questionnaire, Webropol Survey inquiries, and multi-actor evaluation workshops. The assay methods were frequency analysis and content analysis.

The perspective of this empirical study is based on participatory action research and democratic dialogue methodology, answering the need for further research stressed by Kalliola and Mahlakartano [4]. They utilized several qualitative literature analyses and their own experience. The authors called for empirical research. Technological change presents challenges to work organizations, employers, employees, and various professions, which have had to renew their modes of operations, actions, and work processes during the Pandemic. This has affected most public sector organizations characterized by professional, value-oriented work, including nurses, teachers, and social workers. Additionally, public work organizations and professionals have been forced to learn how to manage change flexibly and continuously. The methodological grounding of the development lies in a conventional dialogic OD model. In 2013, Gilpin-Jackson [19] summarized the following main features of the model (Table 1).

The features presented in Table 1 were studied in the exceptional circumstances and developing environment caused by the Pandemic. The most different development circumstance based on the authors' earlier projects are remote and technology-based development interaction and processes, methods, tools, and spaces.

Table 1. Conventional concept-driven and research-assisted (PAR) dialogic organizational development (originally by Gilpin-Jackson 2013, modified for this study).

1. Type of OD methodologies	OD project methodologies are the set of PAR and development methods, tools, techniques, or defined processes used to inquire and take actions to improve an organization's effectiveness, performance, innovativeness and quality of working life, see Figure 1.	Third-generation OD methodologies and tools.

Table 1. *Cont.*

2. Goal of OD project process, approach, or inquiry	OD project is a full cycle of PAR and actions taken to improve organization's effectiveness, performance, innovativeness and quality of working life, see Figure 1.	Emergent self-organizing around a shared vision of the future created in conversation and interaction. A focus on acting on opportunities and potential in the organization system.
3. Type of OD practice	OD project practice is the professional exercise of organizational development using a variety of quantitative and qualitative PAR and OD methodologies	Methodology-centered where various dialogic methods define the OD project.
4. Philosophical orientation to practice		Knowledge is emergent and constructed from real-time social interactions.
5. Role of OD practitioner	Subject–subject relationship of PAR	Facilitator who recognizes that their presence influences knowledge creation.
6. Source of OD	PAR interventions.	Interventions are co-created by all involved participant groups and especially through self-organizing.
7. Practitioner influence on implementation	PAR interventions are the actions and methodologies within an OD project.	Zero or limited influence, interventions are implemented through self-organization of participants.

The research interest was to analyze the challenges, learning experiences, and effects of the COVID-19 pandemic on the Social and Health Care and Special Education Development Project's (2019–2022) dialogic development work. The particular interest is methodological and based on the following question: Is it possible to apply a Scandinavian dialogic and collaborative development model [3,4,6,7,12,13,18,20] remotely and through technology? The study concentrates on analyzing the interaction, dialogue, and learning possibilities, spaces, and tools in the remote period of the Project participants using various qualitative and quantitative evaluation materials. We combined many aspects and actors working and collaborating during the Pandemic, as various actors developed their dialogical working life, organizations, workplaces, teams, work, and services. These groups were (1) participating pilot organizations and (2) implementers (Project staff, researchers, experts, and workplace developers). Pilot organizations' staff represents the management, employees, and various professional groups. These two participant groups were in a collaborative and dialogic subject–subject relationship [3,21] while carrying out the Project, developing, and solving problems. The research questions that guided the study are as follows:

1. What are the neutral or positive experiences of the Project's parties, working conditions, and mutual collaboration during the Pandemic period?
2. What are the negative experiences and challenges of the participants of the Project's dialogic development caused by the Pandemic?
3. What are the main learning experiences of the Project's dialogic development during the Pandemic?
4. What are the effects of the Project's dialogic development?

For the literature review, a keyword search was performed with the keyword "COVID-19", resulting in 697 hits. According to the review, the Pandemic has had a cross-cutting impact on all aspects of society. Studies and questionnaires have focused mainly on the education, research and training [22,23], and social and healthcare [24,25] sectors. Studies have addressed the impact of remote work and technology [24,26–28], distance schooling, and remote study [29]. In particular, the well-being of teachers, principals, and university professionals at work has been mapped using various questionnaires related to the effects of the Pandemic [30–32]. Particularly common were studies of well-being and pressure at

work on an individual level [24,26–28,33]. General themes among researchers included the features of future work, especially remote work and remote working [34,35], and leadership during the Pandemic [25,36–38]. Many articles and publications have concentrated on remote work associated with increased digitization and technology, with topics such as the proliferation of remote work and working during the pandemic [1,2,39–44]. During the COVID-19 pandemic, the use of digital technologies has increased because of social distancing norms and lockdowns [1,44]. The literature review revealed fewer publications during COVID-19 on workplace development [39,45], learning, or the renewal of work communities or work [46,47], except for the technology and digital leap [39,40]. A digital leap, together with remote work, was reported, with a particular focus on teachers' or other academic professionals' work, well-being at work, distance schooling, or remote university, teaching, research, and learning [22,23,29–32,48,49].

2. Methods

The use of questionnaires as a data collection method is an essential part of this approach [13]. The quality of working life questionnaire has been utilized for pre- and post-measurement in several PAR development projects of the authors [5,12,13]. The questionnaires act as significant mirrors for reflective processes: the strengths and weaknesses of the working communities and the variables that need development in the workplaces can be identified through the results. The questionnaire was included in the Project's original implementation plan, and it consisted of many questions that were used in this study (e.g., technology in one's own work and in the work community, the effectiveness of development work). One new question was added to the post-measurement questionnaire to examine the respondents' experiences of the impact of the COVID-19 pandemic on their work, work community, management, and clients.

The quality of working life questionnaire [5,12,13,17], which was conducted as a pre-measurement in 2019 and as a post-measurement in 2021, contained the following 14 thematic categories:

1. Features of work, control of work, workload, pressures at work;
2. Factors of well-being at work community, atmosphere, and operating principles;
3. Learning, renewal, development, creativity;
4. Teams, team self-direction;
5. Features of the work community;
6. Employer's responsibilities, working environment and conditions, psychosocial risks, conflict management;
7. Management, supervisory work, and leadership style;
8. Power, responsibilities, and division of labor;
9. Objectives: values, basic tasks, goals, 'rules of the game';
10. Influence and participation;
11. Information flow, communication, interaction;
12. Feedback and rewarding;
13. Satisfaction;
14. Effectiveness of collaborative development (Question 49: What kind of effect has the collaborative and dialogic development had?).

In this study, we only analyzed the thematic categories of the questionnaire where the qualitative analysis revealed the main results. Those categories were: (1) pressures at work on the individual level: workload, pressures at work, ethical and mental burden of work; (2) leadership style; (3) features of workplaces; (4) satisfaction; and (5) the effectiveness of collaborative and dialogic development. The results of the frequency analyses were combined from the five Likert options (1–5) into option 1 (Very good effectiveness/Very satisfied/Fully agree, etc., %) and option 2 (Quite good effectiveness/Quite satisfied/Somewhat agree, etc., %).

Open-ended questions in the questionnaire were as follows: (1) What do you want to say about leadership? (Question 25); (2) What do you think about the role of technology

and digitalization in your work? (Question 27); (3) How has the COVID-19 pandemic affected your work, work community, leadership and management, and interactions with customers? (Question 50); and (4) The word is free (Question 57). Among the open-ended questions, only questions about technology and digitalization as well as COVID-19 were analyzed, because they were the most relevant for answering the research questions.

In order to assess more impacts of the Pandemic, evaluation workshops were organized for the supervisors and employees of the pilot organizations in the autumn of 2021, in which they assessed the impact of the Pandemic on the development and implementation of the Project.

The self-reflection and group evaluations were executed from February 2020 to September 2021, generating qualitative and quantitative data and materials. In the spring of 2020, just before the start of the Pandemic, the Project's first evaluation process was conducted as a self-evaluation of the Project staff. The development work had been ongoing for one year and two months, with 15 pilot organizations and their 39 teams or workgroups. The evaluation was performed by mirroring the development work in the development plans. With a case study narrative, it was possible to chronologically present all of the development work carried out in the traditional, transition, and COVID-19 phases. The case study consisted of a brief presentation of the Project pilots' plans, organization-specific development needs and goals, and Loppela´s (2004) participatory development method, called Toward better work and well-being by discussion [7].

Content analysis was inductively used to describe the phenomenon under study. The inductive strategy proceeded based on the data generated from the research data, from individual to general. The qualitative material followed a thematic design, which began with an inductive analysis involving the reduction in the material, i.e., the coding of the material related to the research task. The experiences of the pilot organizations' staff were first recorded in lists and then reduced. In the next phase, the data were grouped based on their similarities and differences, and groups with the same meaning were combined into sub-content categories. These categories were named with descriptive words as the upper content categories or sections as mutually exclusive categories. The qualitative content analysis is reported as a summary of the thematic categories [50] (pp. 117–146). Table 2 presents a summary of the Project evaluations.

More about the methods, data gathering techniques, qualitative and quantitative materials, and analyses are presented in Table 2.

Table 2. Evaluations: methods, time, data-gathering methods, actors, questions, and analyses.

.	**Evaluation: Time, Methods, Analyses**	**Participants**	**Questions**
(1) Traditional phase Before Pandemic 01/2019–02/2020	01–02/2020 Self-evaluation. Content analysis.	The project staff N = 16	Questions: *(1) What kinds of development targets have been agreed to by the pilot organizations?* *(2) How well these targets have been reached, and what has been achieved through them?* => Results: development goals (1–2) *(3) If the targets have been reached, what has supported them? What are the positive effects?* => Results: positive effects, promotors *(4) If the targets have not been reached, what has prevented them?* *(5) Have there been experiences of development activities having negative effects in the workplaces?* If so, what kind? => Results: obstacles and negative effects

Table 2. *Cont.*

.	Evaluation: Time, Methods, Analyses	Participants	Questions
(2) Transition phase At the beginning of the restrictions 03–08/2020	04–06/2020 Common creative process 'brainstorm' at Consortium meetings and workshops using OPERA method.	The project staff N = 16	Question: *How to continue the SH project during Covid-19 and under the several restrictions (national, implementers, pilot organizations, funders etc.)?* => Results: plan for the transition phase.
(3) Covid-19 phase During pandemic restrictions 09/2020–10/2021	03/2021–10/2021 Quality of working life questionnaire, self-evaluation, individual reflection. Content analysis Frequency analysis.	The pilot organizations' staff: (1) Children protection and family services care N = 172 (2) Elderly care services N = 53	Question: *(1) What do you think about the role of technology and digitalization in your work? (Q: 27) (2) How has Covid-19 affected your work, work community, management and leadership, and interaction with customers? (Q:50) (3) What kind of has been the effectiveness of dialogic and collaborative development?* (Q: 49)
	09–10/2021 Multi actor assessments, evaluation workshops. Content analysis.	The pilot organizations' staff: (1) Management groups N = 7 (2) Multi professional employee groups N = 11	Question: *How has Covid-19 affected collaborative and dialogic development in your workplace?*
	09–10/2021 Webropol inquiry, individual self-reflections. Content analysis.	Project staff N = 10	Questions: *(1) What kind of have dialogic and collaborative development have been during the Covid-19 pandemic? (2) What have been the main lessons and insights for you about collaborative and dialogical development in SH Project during the Covid-19 pandemic? (3) What have been the main promoters? (4) What have been the main obstacles?*
Case study combining phases 1–3 01/2019–08/2021	Content analysis.	Case study, narrative of development in three pilot organisations of one implementer.	Description of the collaborative and dialogic development, methods and tools, processes, and phases.

3. Results

3.1. Traditional Phase—Evaluation of the Planned Development of the Project

The results of the Project's interim evaluation provided initial information on how dialogic development with expert support has promoted progress in the pilot organizations. At the mid-term of the Project in the spring of 2020, the process was assessed through the developers' self-evaluation. The results of the evaluation indicated that various dialogical mapping and development methods have been used in work communities to highlight areas for development. The extensive quality of working life questionnaire conducted at the beginning of the Project was also an important tool [12,17].

Development objectives. The most common development objectives or goals focusing on the factors supporting well-being at work and principles in the organization are: (1) dialogue, communication and interaction, information flow and meetings; (2) community and teamwork; (3) orientation; (4) influence and participation; (5) "rules of the game"; (6) features of work and control of work (i.e., physical, mental, and ethical workload, the rushing and limitations of work); (7) utilization of expertise; (8) supervisory work, management, and leadership; and (9) well-being at work and occupational safety. Many of these objectives were achieved. They were initially set out to build a relationship of trust. In connection with the development of occupational safety, for example, safety equipment was ordered for employees, and its functionality and usability were tested. For these goals, concrete organization-based development acts were carried out and evaluated. By the spring of 2020, every pilot organization had made progress toward the objectives. Several of them were achieved, and the development processes also started well. The general observation was that the realization of many goals was facilitated by the external experts,

the Project staff. Clear, functional, and systematic methods were used, and they supported both the highlighting of development goals and the achievement of goals through concrete development measures. Dialogue was practiced as part of development and was found to increase transparency and support a positive environment. The commitment of supervisors and employees was perceived as good and important.

Obstacles, negative experiences, and effects. The general observation was that no major obstacles emerged. In some workplaces, open dialogue was new, and development thus required acclimatization and caused some confusion in the beginning for both the supervisor and the employees. Some workplaces were under severe time pressure, and thus meaningful development work posed an additional challenge; for example, the use of working time and the convening of as many employees as possible at the same time. Participation in the development project seemed to add pressure to a situation in which the team's resources for the basic task were already tight. In some pilot organizations, the staff felt the time for joint discussion to be absent from client work. This consistently resulted in additional work for the authors of the shift lists when employees needed to be detached from Project events while ensuring there were enough employees in the field. Some members of the management team did not have enough time to participate in the development meetings, and they experienced guilt that the agreed-upon meetings had to be postponed or canceled.

Negative effects. Generally, staff of the Project considered that development activities have not had particular negative effects. However, a few individual issues were raised; the awkward, difficult issues that were raised regarding negative emotions because, earlier, difficult issues and problems were not dealt with openly together. However, these were considered in the development meetings. Shift arrangements and the handling of acute customer situations rhythmized employees' opportunities to participate in the workshops.

Promoters and positive effects. The general conclusions were that the dialogue between employees and supervisors clearly increased, and dialogic development was a great success. Being visible, transparent, and concretized in the joint development meetings and workshops was important. The importance of meta-skills emerged. Development methods provided space for open and equal discussion in the team and increased the importance of meetings. Discussions about various organizational phenomena and factors, openness, and trust increased. Dialogue was studied and perceived as important, and the participants desired to utilize it in further development work. Meetings often began with a tune-up and a round of hearings that involved everyone as participants in a future development event.

3.2. Transition Phase—What Happened When the Pandemic Hit?

The Pandemic intensified in Finland in March 2020. One pilot of the elderly care services (home care) was stopped because of the Pandemic, and almost all of the pilots had to cancel or reschedule development sessions. The dialogic development model was changed to the remote and technology-driven model.

> *"The project has had to be justified and somehow apologized for bothering the work community with matters related to the project, even though they have the experience that even more important, acute customer issues are not done, and at least not taking any breaks or recording properly in their own work."*(Workplace developer, Project)

There was also a desire to continue the Project and its development, and new pilots were launched. In the pilot organizations, internal developers ("fiery souled internal developers" or "bearers of responsibility") were found, the home care teams were forced to become self-directed, and cooperation between the different Project pilots started. The entire consortium and the Project staff with its four different implementers moved to remote working and development, and interaction with pilots continued through technology. Among the pilot organizations, staff excitement and motivation decreased, and they were forced to focus attention on basic tasks. The Project became overshadowed.

> *"Now, there is a feeling and concern on the surface that the field cannot be done very well and continuous development exhausts work communities. This brings me as a developer an ethical conflict and in a way eats away the motivation to do development work. I wonder how the development of work in everyday life a more natural part of the whole structure could be, neither detached, nor temporary, nor a necessary evil imposed by the employer that tears at many different goals and objectives."*(Workplace developer, Project)

In this transition phase, from April to June 2020, the Project staff organized a creative brainstorming workshop to react rapidly to the Pandemic. The brainstorming was carried out using the OPERA method [51]. There were four phases, and the following ideas emerged (Table 3; only the ideas that were realized are presented).

Table 3. The results of creative brainstorming at the beginning of the transition phase.

1. Pandemic spring greetings	Personal remembrance for each employee, workplace, team, management team, development team. Flowers, cake, chocolate, cards, face shields, that developers experience good. A concrete memory that makes someone feel like someone is thinking "Me" or "Us". Delivery by letter, including encouraging and empowering messages, accompanied by development tasks.
2. Enhancing webinars	In connection with the theme of wellbeing at work, which can be viewed according to workplaces' own schedule. Webinars implemented together with the Finnish Municipal Development Program.
3. Support for supervisors	Concrete tips for supervisors on how to support the coping of their subordinates. Lectures for workplaces.
4. Tips to survive in an exceptional situation	Collecting tips for different pilots, professional groups, teams to cope with an exceptional situation.
5. Monthly letters	A joint consortium monthly letter will be sent by email, recipes for the joy of work for the pilots. Can be found on the project's website.
6. Tips for strengthening and relaxing	Material bank and various options for relaxation and recovery.

In the transition phase, greetings from the developers (e.g., flowers, chocolate, development tasks) and the support and help from managers (spars) were important Project activities which provided support to the pilots. The feelings among the Project staff during the transition phase were positive.

"We have coped well and did our work and interaction with the pilots well."

Survival in the new situation of the Pandemic and its restrictions was facilitated by good adaptability and an open-minded attitude. A common attitude was to focus on what was possible and not on problems and obstacles. The Project also gave significant support and assistance to the pilot organizations, which increased motivation.

"Project activities did not 'freeze', and remote development was adapted where it was possible."

Generally, the Project staff felt that remote work and technology-driven collaborative and dialogic development was more difficult, but possible. Remote development sessions containing the four principles of dialogue—listening, appreciation, direct speech, and waiting—were carried out using different technologies, devices, and applications.

3.3. Case Study: Developing Dialogical Workplaces during the Traditional, Transition, and COVID-19 Phases

Traditional phase. The development model Toward better work and well-being by discussion [7] was based on dialogic and reflective development conducted jointly by supervisors and employees, simultaneously considering the perspectives of employees, employers, and customers. A separate development plan was made for each pilot organization, including goals, concrete measures, responsible persons, and schedules. In each development meeting, dialogic and reflective self- and process evaluations were carried out. The various phases of the joint development were carefully documented using a bundle of documents. The model facilitated the evaluation of the outcomes and made them visible to all participants.

The development with three pilot organizations providing elderly care services started in the late spring and early autumn of 2019. Start-up negotiations were held at the beginning of the year. In the first development sessions, the pilots were introduced to the development method. An extensive quality of working life questionnaire was conducted as a pre-measurement, and the results were reviewed systematically. While interpreting the results, well-functioning factors and factors requiring development were highlighted, and joint dialogues were arranged. A common development theme for all pilots was dialogue. Familiarity with the phenomenon of dialogue was induced, both by theory and through various functional exercises (i.e., dialogue cards and group reflections).

Transition phase. The development was carried out face-to-face according to the plan until March 2020, when development was interrupted by the Pandemic. Contact was maintained with the Project supervisors from March 2020 to September 2021, mainly by e-mail and telephone. Furthermore, a series of slides supporting entry into force was prepared and sent to the pilots in June 2020, as well as a reflection task related to the Pandemic situation and coping in exceptional circumstances. The participants were also given Recipes for the Joy of Work in June–August as a gift. In September 2020, a joint Microsoft Office 365 Teams meeting was held for the supervisors of all pilots, and a consensus was reached on how the development work would be continued. The groups decided to continue the development in each organization remotely through Teams. The next sections describe the development of the three pilot organizations providing services for the elderly.

Six to eight development meetings in three pilots were held during the break in the Project from March to August 2021 because of the Pandemic. After that, the meetings were mostly held remotely via Teams from September 2020 until May 2021. In the autumn of 2021, the meetings mostly became face-to-face again. Remote sessions were the biggest change compared with the planned face-to-face development. However, the pilots had already taken a digital leap in their own basic functions. Prior to the Pandemic, the development of all three pilots was carried out in different ways. The principles of dialogue were practiced and learned earlier for application. The development goals were concretized as follows:

- Improving the internal flow of information;
- Providing better and more information to partners and customers;
- Establishing principles, "rules of the game" for different things, e.g., for communication, and meeting practices to support successful communication and for shift planning;
- Increasing open interaction, cooperation, and reciprocity and enabling everyone to participate and develop dialogue, direct speaking and listening skills;
- Improving equal treatment for clients;
- Introducing and learning to use new online platforms and IT equipment;
- Processing and utilizing customer feedback in the development of services;
- Assessing a new patient information system to ensure the use of consistent phrases;
- Developing interprofessionality;
- Assessing better dissemination of the information provided by training and conferences to develop skills;
- Developing meeting practices; meetings should be more frequent, scheduled, and planned;
- Reducing workload and joint handling of workload.

After a joint reflective dialogue discussion, concrete measures were identified for each objective and development experiment. They were also regularly evaluated. Most of the goals were achieved successfully, and some new ones were agreed on after the evaluation. Some of the goals required cooperation with stakeholders; therefore, development was slower, and it was carried out in a step-by-step process.

COVID-19 phase. The next sections describe the effects of the Pandemic on technology-based development. The effects of the Pandemic were investigated in the autumn of 2020 in a joint evaluation meeting with the leaders of the pilot organizations. The following effects were highlighted:

- The hygiene unit was very helpful and supportive throughout the Pandemic, staying well-informed about current issues;
- The joint dialogue development came to a near-standstill, because all the time and energy was spent on overcoming the necessary, concrete tasks and making special arrangements in the Pandemic period; for example, considering different methods of protection;
- There were challenges with the adequacy of employees; for example, the required absence of employees' children from care places due even to mild flu symptoms caused employee absences;
- Employees were trained to track down potential COVID-19 infection chains. At that time, however, no COVID-19 virus infections were detected in that locality;
- New service chains were launched to improve the quality of patient care;
- There was a digital jump in operation during spring and summer: the doors were closed, operations partially switched to remote working, and customer contacts were arranged in advance;
- In the spring, the receptions became mainly telephone receptions, and video connections were also utilized in the receptions. Teams was introduced into meetings and internal communications (e.g., training bulletins);
- Home-based services were added, and the assessments were performed differently from before in the clients' home; some home care staff were helpful, and Skype calls were utilized;
- Staff meetings were held on Teams, half of the time in-person and half of the time using remote schedules, and protective equipment was used.

In the autumn of 2020, after a development break of six months, the negative and positive effects, coping strategies, and activities at the work community level caused by Pandemic were assessed by three pilot staff. The results of the evaluation are presented in Table 4.

Pilots with more employees had more development needs than the smaller pilots both before and after the Pandemic. In the pilots with the worst results in the pre-measurement questionnaire in general and in management and well-being in particular, the Pandemic had the most detrimental effect on development activities, stopping it almost completely. Dialogue was found to have declined in a pilot in which it had been low even before the Pandemic. Furthermore, organizational change during the Pandemic appeared to have partially weakened development activities. Pilots that had regular meetings before the Pandemic were better at coping; even during the Pandemic, information and dialogue were maintained. Management was perceived to support the challenges of the Pandemic period in the pilots in which leadership and management had been at a good level before the Pandemic. The development plan was drawn up, and Project staff helped to develop and gave support, even during the Pandemic.

Table 4. Positive and negative effects and the coping strategies and activities.

Positive Effects	Negative Effects	The Coping Strategies and Activities
- genuine digital jump has been taken; - the development has continued during the COVID-19 phase independently in the workplaces; - the development plan has supported pilot organizations during pandemic; - progress has been seen in the direction of goals.	- social isolation is a burden; - negative COVID-19 information through the media increased fear and pressure; - uncertainty during the pandemic period; - mental strain and sick leaves; - pandemic quarantines and restrictions; - coping was in a test while the workload increased; - partial transition to remote working.	- leisure activities—nature, outdoor activities; - good team spirit and atmosphere; - meetings; - members of the workplaces have seen each other in person, even if part of them has been at office and part of them remote by Teams application; - coffee room for two people at a time, seeing colleagues; - a good, present and reachable manager, even in remote working; - transparency and trust; - speaking; - matters are dealt with regularly; - unit meetings held considering safety intervals, partly remotely and partly at the workplace; - personnel information was good, pandemic information was regularly shared and recorded; - in the nursing meetings, it was possible to get on the agenda proposals on the issues to be discussed in advance; - remote work has made it possible to concentrate better and focusing only one task or issue at time; - work breaks.

3.4. COVID-19 Phase—Summary of the Experiences of the Project Participants

Experiences of the Pandemic were neutral, positive, and negative among the pilot organization and Project staff. Negative experiences were the most common and had the highest variety. Figure 2 summarizes the theme categories of the qualitative materials results presented in Table 2.

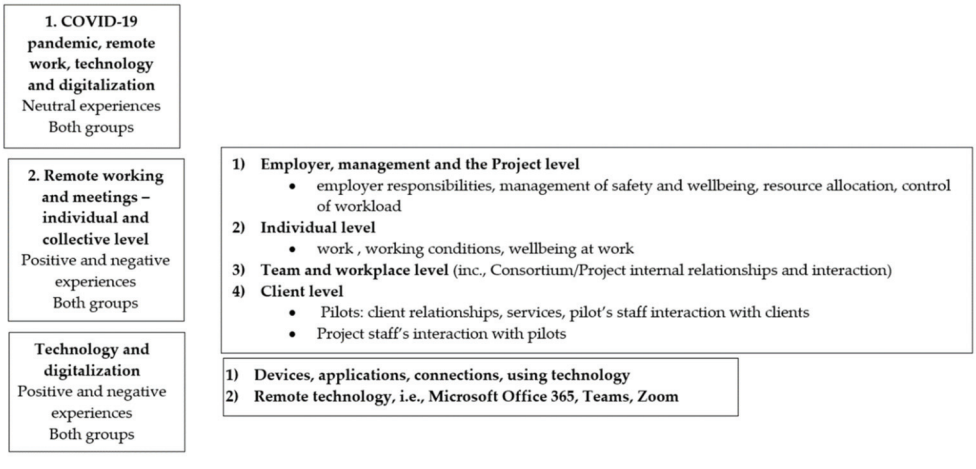

Figure 2. The main results in the thematic categories.

3.4.1. Neutral and Positive Experiences of Remote Work, Technology, and Dialogic Development: Pilots

Pilot organizations' staff had many positive experiences during the Pandemic and the increased remote working, technology, and digitality it brought about. With the onset of Pandemic restrictions in the spring of 2020, remote working increased, and workplaces responded quickly. Various means, tools, and technologies of remote work were introduced. Distanced meetings also became more common. At the individual level, many of the respondents felt that remote connections worked well in their own workplaces. Participants felt that remote working was more independent and versatile; for instance, in helping to plan and implement their work. While working remotely, work became more flexible when it was possible to plan and do it according to one's needs. Good and renewed operating methods and the opportunity to negotiate remotely with various parties were also welcomed.

"Technology and digitalization are increasing their role and importance in work, even irreplaceable, which is not uncomplicated in an area, where working with people is paramount."

"It also influences the flexibility of working hours, e.g., remote working. It is hoped that this will continue, and that security will be maintained."

In particular, the Microsoft Office 365 Teams application was widely perceived as a very important and central tool through which meetings, contacts, and interactions with various parties were handled during remote working. The use of Teams clearly increased and became more widespread in almost all work communities. The application was perceived as a good and functional tool that facilitated communication and contacts.

"Teams have been used in intra-workplace and inter workplace and customer contacts. Customer work has been handled through Teams, e.g., in the planning of care and services and in care negotiations. Some service providers have also organized training and webinars for work communities through Teams, as well as different groups for different customer groups, such as peer support groups."

In the pilot organizations, technology was seen as a tool that would be more important in the future. The respondents recognized that doing social and health work remotely based on interaction created its own challenges. It was difficult to make or replace face-to-face contacts remotely, especially in customer work.

"Technology and digitalization are increasing their role and importance in work, even invaluable, which is not straightforward in an area, where working with people is a priority."

3.4.2. Neutral and Positive Experiences of Remote Work, Technology, and Dialogic Development: Project Staff

Among the Project staff, there were quite similar experiences of remote work and technology, and a digital leap was realized. The new situation showed that remote work and development is possible, and it succeeded; however, there was a need to learn and use new digital skills and technologies (e.g., platforms, programs, applications, and connections, such as Teams, Zoom, Presemo, and Skype). Developers were also forced to learn new ways to plan and conduct remote development meetings and events.

"Digital leap of all parties throw themselves into the new way of development and the encounters it brought."

"Ideation and use of creativity in technology-mediated and dialogic development."

3.4.3. Negative Experiences and Challenges of Technology, Digitalization, and Dialogic Development: Pilots

Many negative and burdensome issues were raised about technology and digitalization. These included the constant changes brought about by unnecessary technology and inoperable systems and programs that have taken working time away from more

important tasks. Many also said that they have not been able to influence the introduction and development of the programs. They also felt that the sheer number of digital devices and software led to many passwords needing to be remembered.

> *"Digital solutions are often meant to make work easier, but sometimes the opposite happens when new software slows things down and makes work harder."*

> *"There is a growing need for digital issues, but their quality makes basic work even more challenging and resource-intensive. It takes more time, the task is handled through several different stages, for example due to cloud services."*

The proliferation and use of technology in the workplace was associated with a wide range of physical and mental stressors and problems, such as small and cramped working spaces with poor air quality due to ineffective ventilation. There were also reports of small storage booths in which confidential customer calls had to be handled.

> *"Many people are in the same room, so they have to talk long calls in storage booths, etc., where the air quality is poor due to dust and lack of ventilation."*

Mental strain and aggression were caused by machines, equipment, programs, and connections that did not work properly, operated slowly, or did not work at all on a regular basis. The strain was caused because valuable work time was spent addressing ongoing and miscellaneous problems and disruptions as well as seeking and waiting for help.

> *"Electronic customer information systems make work easier, but when they crash, work is sometimes almost impossible."*

> *"Digital devices are snapped at every point and their mistakes are corrected by several people."*

There were many problems with technology and technological capabilities, connections, know-how, and attitudes.

> *"Employees do not have their own computers, a total of 1–2 computers available for remote meetings and few and cramped office space, 1–2 people."*

> *"No knowledge to work online, use of different programs."*

> *"For various reasons, the cameras are not kept on—being in a nightgown, the hair is bad, something else is being done at the same time."*

Microsoft Teams meetings also involved a wide range of problems related to network connectivity, basic application features (camera, audio, recording), and user attitudes. Next, we present the most common problems encountered during development meetings and sessions arranged by the Project staff.

> *"Many people gathered at the same screen, so the sound is not heard, and the picture is not visible to everyone."*

> *"Teams at meetings on a mobile phone or computer cannot be reached while remotely at home or at the summer cottage."*

> *"Sounds and images are not displayed. The camera is shooting the ceiling or is turned off."*(Project, developers)

Pilot organization staff felt that there was a wide range of problems and challenges that needed to be addressed. The participants acknowledged that the wider and more diverse use of technology required a new kind of expertise, the management of new programs, and connections and a shift to more extensive remote interaction. A hybrid model with both face-to-face and remote appointments and encounters was considered good.

> *"Pandemic has contributed to the fact that meetings and training are remote through Teams. It is good that this has been possible. In the future, the meetings could be of a hybrid nature, i.e., the meetings would be held physically somewhere, which, if possible, could be attended or, if an obstacle arose, could be attended remotely."*

Technology and digitalization in the work of different professional groups required increased competence, which was reflected in the Project's social and health organizations as different training needs and competence gaps. This was caused by an ever-increasing number of new technologies and programs that were not perceived to be internalized in busy and strenuous work. Many respondents also pointed out that they did not have the resources, especially the time and skills, to keep up with the technological development of hardware, software, and connections. Experiences of inadequacy were generated by constant monitoring of the technological situation, familiarization with new technologies and programs, and further training. The participants also perceived that employers did not provide sufficient and proper familiarization with technology and digitization. In many workplaces, familiarization with new programs and devices remained a personal responsibility and had to be conducted alone, during leisure time, and without pay.

> *"Technology and various programs play a big role in the work, new ones are coming all the time, orientation and training should be more up-to-date. Now it is only announced that this and this will come into use and in their own time alone they will then learn, through trial and error, to use new programs."*

> *"There was also a call for targeted training to address the specific and current support needs of employees and the different skills gaps. Many pointed out that the availability of technical support in one's own workplace is very poor and slow."*

One of the challenges raised was age. Particularly among older workers, there was an increased burden during the Pandemic related to new technology, monitoring technological developments, and applying them to their work.

> *"For myself, at the age of 60, the takeover of technology and digital is successful in the basics, e.g., Teams, video calling. Otherwise, there is not much enthusiasm, knowledge or understanding. Of course, I learn something new when it is seen as necessary and useful together."*

3.4.4. Negative Experiences and Challenges of Technology, Digitalization, and Dialogic Development: Project Staff

Remote and technology-mediated dialogic and collaborative development sessions were seen as much more difficult than traditional face-to-face development sessions and events. Face-to-face encounters based on direct interaction were perceived as the heart of the development; the remote development sessions were not perceived as authentic and could not sufficiently replace the immediate social contacts. Remote connections were not a substitute for strong in-person interactions. There was also less collaboration, and Teams connections did not correspond to physical encounters and interaction. Interactions and collaborations between developers and pilots remained more distant, and technology limited interactive discussions and deeper and genuine dialogues, especially with regard to difficult themes and problems.

Technology clearly narrowed the dialogue and reduced the diversity of dialogue and the use of dialogical means. There was a lack of nonverbal communication; nonverbal communication and information, as well as a variety of weak signals, went unnoticed (e.g., emotions, expressions, gestures, reactions, side effects). The levels of activity, motivation, enthusiasm, and concentration of the participants in the remote contacts were not as high as in immediate contacts, and group processes and group dynamics suffered. There were also difficulties motivating the participants, and some were left out or excluded. Concentration problems and a temptation to do other work at the same time weakened the results or hampered participants' learning, and the loss of alertness decreased mood and caused boredom. Other lessons from remote, technology-based development sessions are presented below:

- Planning of the dialogic sessions: dialogue is different, and conditions for it must be consciously, purposefully, and carefully planned and built;
- Listening: responding requires listening to the participants;

- Changes and flexibility: implementation must be prepared for various changes. A flexible approach is needed in rapidly changing circumstances, i.e., a need for 'Plans B and C';
- Breaks: more breaks need to be taken.

3.4.5. Effects on Well-Being at Work: Both Groups

Both informant groups reported positive effects on well-being at work. Remote work facilitated, enhanced, and saved work and working time, the working environment was calm, and control of the workload was easier. Many participants emphasized the impacts on the efficiency of work and the workflow. Positive features also included freedom, meaning, and creativity of work, which supported a balanced state of mind and a feeling of empowerment while surviving the Pandemic period. Common experiences were focused on absences, morbidity, and traveling, which were reduced.

Negative experiences of the more technology-intensive work and interaction and remote work during the Pandemic included many psychosocial and other kinds of effects on well-being at work. Furthermore, these effects were quite similar in both groups. Many expressed their experiences of isolation, working alone and loneliness, extra work, being hurried, increased workload, and rapid and unpredictable changes in work. The main stressors focused on health safety, protection, and masks in the workplaces and during customer interactions. Stressors increased mental pressure, strain, and fatigue, sick leaves, and absences. The Project staff reported physical and mental fatigue, decreased meaningfulness of work, and frustration. Some of them felt disappointment because of the cancellation of interesting events, occasions, and trips. In both groups, well-being at work weakened because of the low level of social contact and professional loneliness.

> *"Pandemic has mixed everything up. The work has become even more ambiguous."*
>
> *"Has had to create and give of himself more and more, decreased motivation."*
>
> *"The amount of work has increased, but no resources have been added. Overtime has increased, and I feel that pandemic has been the hardest part of my career."*(Project, Developer)

Interestingly, only a few of the remotely working employees or professionals described the features of management or leadership while working remotely in exceptional circumstances or taking care of the employer's responsibilities during the Pandemic period. The most common thing people wrote about was the turnover of supervisors, low attendance, few face-to-face encounters, and more distant interactions than before the Pandemic. Among the responsibilities of employers, poor familiarization, low or depleted human resources, and increased workload were highlighted, the combined effect of which was perceived to be an increased workload and deterioration of well-being at work.

3.5. The Power and Impact of Collaborative and Dialogical Development

In autumn 2021, the post-measurement of the *quality of working life* questionnaire assessing the state of well-being at work in the pilot organizations was answered by 172 respondents of child welfare and family services and 53 respondents of services for the elderly. At the time of writing, another special education pilot had not yet responded to the post-measurement; thus, both pilots of special education have been excluded from these results. The results of the frequency analyses were combined from the five Likert options (1–5) into option 1 (Very good effectiveness/Very satisfied/Fully agree, etc., %) and option 2 (Quite good effectiveness/Quite satisfied/Somewhat agree, etc., %).

In total, 225 respondents assessed the effectiveness of collaborative and dialogic development of the Project by answering the following question: *What kind of an effect has the dialogic and collaborative development had?* The results showed that the experiences of the staff of the child welfare and family services and elderly services regarding the effectiveness of dialogic and collaborative development were very similar. The best impacts were focused on employee–management relationships, leadership, teams, workplace renewal and development, and information flow, as well as communication. Furthermore,

improved job satisfaction was indicated by almost all the assessed variables. Most of the increased satisfaction was focused on the individual's team (+10%), quality of services (+6%), atmosphere of the workplace (+5%), workplace community members' willingness to cooperate (+4%), and customer relationships (+3%).

According to the results of the pre-measurement in 2019, variables that promote well-being and coping at work included excessive workload and the mental and ethical burden of work. During the transition and COVID-19 phases, the workload (from 75% to 81%) and mental workload (from 91% to 89%) increased. In contrast, the physical workload decreased (from 19% to 16%). The pre-measurement also showed an occupational overload (13%), which suggests that the work and its demands were perceived to be too difficult for the individual's skills and competence. Occupational overload decreased somewhat (−5%); however, occupational underemployment, which impairs well-being at work and makes work too easy for one's skills, remained unchanged. This further undermined the experience of well-being at work. A good result in terms of work control was that 5% more participants felt that their work, tasks, and responsibilities corresponded better to their abilities, skills, and competence than before the Pandemic.

In spring 2019, the results of leadership style were fairly good. The post-measurement in autumn 2021 showed that leadership improved, especially in the important features of dialogic leadership style [17]. The results improved, for example, in fairness (+3%) and equality (+4%), presence and accessibility (+7%), management skills (+3%), and the support of well-being at work (+1%). There was a slight deterioration in only a few features of leadership: listening (−3%), individual flexibility and job descriptions (−4%), support and assistance (−2%), and appreciation (−2%).

The results of the post-measurement also highlighted an overall positive change in the characteristics of the workplaces, although the Project pilot organizations have been working in the Pandemic circumstances since March 2020. During the same period, the development of the Project was conducted remotely, and it was technology-based. The biggest positive changes were seen in the smoothness of cooperation between employees (+5%) and in common understandings of the basic tasks (+3%). In the pre-measurement, the worst results were in the rules of the game and adherence to them. Many workplaces agreed on the common rules of the game in the development session of the Project. There was a positive change in this important development theme, with 3% more respondents feeling involved in drawing up their own rules for the workplace, and 6% feeling better about following and committing to the agreed rules. There was also a positive change (+6–8%) in workplace characteristics in terms of values and a fair and clear division of responsibilities and work.

4. Discussion

The research task was to analyze the challenges, learning experiences, and effects of the COVID-19 pandemic on the Social and Health Care and Special Education Development Project's dialogic development work. Particular interest was methodological: Is it possible to apply a Scandinavian dialogic and collaborative development model remotely and through technology? We were also interested in the kind of learning that took place, the positive and negative experiences, and the challenges encountered in the dialogic development participatory action research among different parties.

The experiences regarding technology, remote work, and dialogic development are viewed as neutral, positive, and negative. The use of technology during the Pandemic has clearly diversified and become more widespread and established in work, work communities, and experts developing working life. According to Richter [44] and Ruohomäki [27], COVID-19 and the related lockdowns in many countries have made digital work no longer just an option, but the new norm for many office workers, who have realized a new range of benefits of digital work tools. This trend was predicted by De' et al. [1] in their study on remote work and technology scenarios, emphasizing the normalization of new tech-driven work practices and transformations. Abrams [35] and Carrol and Conboy [41] also agree,

suggesting that if this normalization process is performed correctly, it will have a positive effect on employee productivity, creativity, and morale.

The results showed that pilot organizations have learned dialogical action and the collaborative and dialogic development methods and tools, and development has been able to continue despite the Pandemic. Several positive effects on pilot organizations were realized. Many development goals were achieved, and the quality of working life indicators improved. The respondents of the post-measurement questionnaire assessed the effectiveness of the dialogic development of the Project.

However, in the pilot organizations and among the Project actors, it became apparent that dialogue interaction and development were significantly narrowed when done through remote working tools, for example, through Teams, which the Project has primarily used during the Pandemic. Given that non-verbal communication by all participants could not be observed simultaneously, much of the tone of interaction and verbal communication was overlooked. Thus, the dynamics of the group were also more difficult to perceive through these media than through face-to-face encounters, preferably through interaction and developmental dialogues within the dialogue circle. Similarly, the more difficult the development challenges were to be addressed, the more face-to-face, holistic communication and interaction were needed. We also felt that building important trust was easier through face-to-face work. Similarly, Gilpin-Jackson [19] emphasizes the importance of trust in a healthcare case study. In particular, so-called "difficult dialogues" and conflict solving call for immediate interaction and suitable psychical, social, and mental spaces [12,52].

There have been many positive experiences with remote work, and it is hoped that this will continue after the Pandemic. Digitalization and remote work have made work easier and more efficient. At the individual level, remote working has brought better work planning and flexibility, which were important factors that improved well-being and coping at work, increased the smoothness and efficiency of work, and saved time for actual work tasks as commuting and travel times have decreased. The Pandemic forced a digital leap in both the Project implementers and the pilot organizations, forcing all involved parties to learn and use new applications and programs, such as Teams, Zoom, Skype, and Presemo.

Richter [44] points out that remote work and digital working tools and environments during the Pandemic have given and can further provide flexibility to cope with the current, complex, and changing work and working life. Abrams [35] highlights the same positive features of remote work, as well as the impact on costs for both employers and employees. Employers can hire geographically distributed talent and reduce overhead expenses, whereas employees can gain flexibility, save time, and reduce travelling, transportation, and childcare costs. According to Ruohomäki [27], more than half of public sector employees were satisfied with remote work. At the individual and organizational levels, Schneider et al. [24] have found such protective factors as self-efficacy, coping ability, altruism, and organizational support.

Carrol and Conboy [41] emphasize the hard reality of COVID-19, which has led to radical changes for organizations and their workforces. Remote working has become an inevitable part of the changing nature of work, and new work models have had to be developed and deployed quickly. The results of this study reveal various concerns about the Pandemic, protection, and the search for solutions to increased work stress and reduced time for development work. Pilot organizations were forced to focus on basic tasks. Two pilot organizations stopped participating in the Project a few months before the Pandemic, and one immediately after the Pandemic began.

In too many pilot organizations, machines, devices, and equipment were inadequate, inappropriate, and not functional. In particular, many employees and professionals were burdened by the constant and perceived excessive use of technology and the continuous changes in equipment, systems, programs, connections, and associated problems, and they often felt overwhelmed with learning new systems and numerous passwords. The results of the literature review by Kautonen and Lehto [28] show that the psychosocial burden is caused by the remote work requirements and limited social contact, in particular.

Deficiencies in digital tools and the skills to use them increase the workload experienced by employees. Individuals can reduce this psychosocial burden by creating clear routines, prioritizing work tasks, practicing various means of recovery, and pausing work often enough. Organizational support and the training from supervisors also have a positive effect on the workload experienced by employees. According to Carroll and Conboy [41], strategic management together with IT managers must ensure the continuity of the work community and team productivity across the organization and provide guidance on normalizing new technology-driven work practices.

During remote work, psychosocial stress was caused by social isolation and reduced direct contact and interaction with coworkers, supervisors, and clients. Through technology, time could be used more efficiently. However, genuine face-to-face encounters, appointments, and meetings, as well as spontaneous informal corridor and coffee table discussions, were left out. The latter plays an important role in the natural pause and recovery from work. Free and spontaneous discussions and dialogues supporting the emergence of new ideas clearly diminished. Salmela-Aro et al. [31] study shows that during the spring of 2020, school principals experienced less enthusiasm and teachers experienced more exhaustion than in previous years due to the Pandemic.

The Project staff worked in universities and polytechnics, and their work was affected by the employer's regulations and restrictions during the Pandemic. Throughout the Project, the staff were forced to telecommute. Mäkikangas et al. [30] have reported similar results focusing on well-being at work among university personnel. Commitment to work during the remote work period was influenced by the employer's support for remote work, the self-initiated development of work, belief in one's ability, and the functioning of the home as a work environment. In conclusion, Mäkikangas et al. stress the importance of supporting remote work with remote management, promoting the importance of the functioning of the home for remote work, and the need to support employees individually in their remote work. According to Abrams [35], the impact of remote work and digitalization on productivity, creativity, and morale has been the subject of debate, especially in psychological research, primarily because working from home offers employees fewer opportunities to talk and network with their colleagues. Social and professional isolation as well as reduced direct contact and little or no social relationships with co-workers, have generally reduced well-being in remote work [27,28]. De' et al. and Ruohomäki [1,27] have found that the weakening of well-being at work is because of increased technostress issues and mental workload.

Experiences in learning new technology and good practices, as well as remote meeting programs, were very common among both groups. The skills and attitudes that were learned in relation to remote work, technology, and digitalization, as well as new ways to cooperate and interact remotely with clients, managers, and colleagues, are important meta-skills and competencies for future work and working life. The hope for the future is that customers' skills in the use of technology and in remote contacts will increase and improve. Warinowski et al. [23] highlight three aspects in particular from the different phases of the Pandemic among educational professions: general cognitive skills and agency, welfare skills, and equality. Additionally, the Project's pilot organizations and Project staff faced new challenges during the Pandemic related to developing and learning those skills, which appeared to be both strengthening factors of well-being at work and stressors. According to Postareff et al. [22], the results regarding teachers' well-being are worrying. Challenges to well-being have further increased as a result of the sudden changes in teaching arrangements caused by the Pandemic. The results of Postareff et al. [22] research show that remote schooling has negatively affected teachers' well-being at work.

Perhaps the most interesting result in the pilot social and healthcare workplaces was revealed in the post-measurement of the quality of working life questionnaire. Very few of the respondents narrated experiences of remote management and leadership. Some described supervisor work, mutual interaction, information flow, or employer responsibilities during the exceptional and rapidly changing Pandemic circumstances. Although

not directly, the respondents said that the responsibilities and obligations of the employer and supervisors, mostly the negative aspects—problems and challenges related to remote working, technology, and digitalization, as well as skills gaps and training needs—are clearly the responsibility and obligation of employers.

According to Abrams [35] and Terkama-Moisio et al. [53], managers practicing in the field must better understand not if, but how, remote work is best conducted to maximize work output and well-being. Ruohomäki [27] points out that successful remote work solutions should be based on trust, joint planning, and employee self-direction. Aslan and Yuar [25] performed a literature analysis focusing on 400 healthcare professionals from six hospitals in four cities. A positive relationship was found between well-being at work and supervisor and co-worker support, and a negative relationship between well-being at work and emotional exhaustion.

According to Pekkola et al. [38], during the Pandemic, many academic leaders faced similar challenges in relation to crisis management [36], as reported in this study. The challenges focused on (1) a massive increase in emails and requests via electronic communications; (2) an uneven impact of the crisis on workload (i.e., key personnel were overloaded); (3) a lack of information on employees' performance and well-being; (4) the restrictive nature of formal communications about the crisis (i.e., the absence of face-to-face "coffee conversations" and adaptation to the new online format of "announcement mode" meetings); and (5) the stress of overlooking important information. Gilpin-Jackson [19] emphasizes the importance of leadership and trust in a complex and rapidly changing organizational environment, highlighting issues that are likely to be common, such as supervisor turnover, low attendance, distance, poor familiarization, limited human resources, and increased workload.

The biggest challenge of the study was the rich qualitative and quantitative data, which produced diverse results. Results could have been reported and analyzed in many different ways. The research methods proved to be very suitable, and several of them had already been recorded in the project implementation plan. The COVID-19 pandemic that began during the Project brought many development challenges, which were reflected in the results. For action researchers, the pandemic provided an unprecedented opportunity to analyze how dialogic development models can be implemented remotely and through technology. A question mapping the pilot organization staff's experiences of the Pandemic was added to the post-measurement of quality of working life questionnaire. The evaluation workshops of the COVID-19 pandemic on the dialogic and collaborative development and implementation of the project were also assessed in the evaluation workshops for the staff and management of the pilots.

5. Conclusions

The results showed that pilot organizations have learned the dialogic development method, and development has been able to continue despite the Pandemic. The power and impact of collaborative and dialogical development were also seen. In summary, the dialogic and participatory development had the best impact on team operations, workplace development and renewal, information flow and communication, employee–management relationships, and features of leadership style (fairness and equality, presence and accessibility, management skills, and support of well-being at work).

The results of the study highlighted many problems and challenges, as well as wide-ranging learning among both groups under study during the Pandemic. In summary, remote working, technology, and development are perceived to have become permanent, necessary, and appropriate aspects of working life. According to the results, the experiences among all of the studied groups' staff—child and family services, elderly services and special education—were very similar.

The work conditions and environments of remote working and technology are, by nature, physical, mental, and psychosocial stressors that directly impair well-being at work.

Physical strain was also increased by deteriorating and reduced physical workspaces, both at home and in workplaces.

The respondents' experiences of appreciation, listening, support, and individual flexibility from their immediate superiors were somewhat impaired, although the Project provided support and supervision to the management, the supervisors, the immediate managers, and team leaders. In conclusion, these features may have been negatively affected by remote working, because they required immediate interaction and were difficult to implement remotely and through technology. Employers have a legal obligation to take care of their employees' working environment, work equipment, and well-being and safety at work, even in exceptional circumstances such as during the Pandemic. The results showed that these employers' responsibilities were partially neglected during the Pandemic.

In many ways, the results reflected the professional learning experiences and rapid reactions of the responsible experts (i.e., researchers, teachers, lecturers, and workplace developers) implementing and carrying out the Project. The work of a teacher, a workplace developer, and an action researcher are expert-level and require diverse skills. The Pandemic radically changed the basic work and project work of these professional groups. There was a rapid transition to remote work and distance learning, and the support of pupils and students and pilot organizations' staff started at the same time.

The effects of the Pandemic on the basic tasks of the pilot organization were partially positive and partially negative, and many challenges and problems were encountered. However, it should be noted that each pilot also had different circumstances during the Pandemic. Hence, the effects of the Pandemic were different. Therefore, broad generalization of the results is not possible. However, the results describe the general effects of the Pandemic in the context of Finnish public and private social and healthcare and special education.

To learn more about remote work and its implications for the future of work, psychologists are studying the benefits, drawbacks, and best practices of remote work [35]. A related and general line of further research is exploring how to maximize the effectiveness of geographically distributed workplaces, professionals, and teams that rely primarily on virtual means of communication. According to Mak and Kozlowksi [46], a related line of research is exploring how to maximize the effectiveness of geographically distributed virtual teams that rely primarily on virtual means of communication. The results of Virtaneva et al. [33] study on knowledge workers showed the positive influence of self-efficacy and teamwork on productivity during remote work.

Clearly, there is a need for wide-ranging dialogues with different parties when planning and outlining the ways in which future work will be carried out. There is an opportunity for employees and employers to reflect on how remote work, technology, and digitalization affect well-being and safety at work, features of work and tasks, management and leadership, social relationships, and interactions in the ongoing transformation of working life. Now is the time to have important dialogues about the changes in work and working life caused by the COVID-19 pandemic. The nature of these dialogues should be reflective and constructive, and all relevant stakeholders in organizations should be involved, because this is a common future of working life for all.

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Investigating the Status of Women Engineers in Education and Employment during the COVID-19 Pandemic

Seema Singh

Department of Humanities, Delhi Technological University, Delhi 110042, India; prof.seemasinghdtu@gmail.com

Abstract: Engineering is traditionally considered a male domain with lower female participation despite various affirmative actions taken in recent decades. There is evidence of greater gender equality as a result of the COVID-19 pandemic and precautionary lockdown measures. With this in mind, this paper investigates whether women engineers in India were more adversely affected than their male counterparts by the COVID-19 pandemic. Such an impact may be explained by 'intersectional stigma', expanded upon in the literature on discrimination. The impact of such stigma varies in different countries based on socio-cultural factors. Through the use of ethnographic and statistical research methods on secondary and primary data from a sample of 384 engineers, this paper shows that the impact of COVID-19 is not significantly different between genders in engineering education and employment. This may be due to the high demand for digital engineering skills, and strong family support in Indian society. Engineering branch may play a relatively more important role than gender in terms of impact. This finding has repercussions for continuing engineering education (CEE) programs and regulatory bodies in India in terms of enhancing course content and the results may be used in developing affirmative programs in other regions.

Keywords: women engineer; placement; employment; COVID-19; engineering education

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1. Background

Industry 4.0 and the challenge to reach the UN's Sustainable Development Goals by 2030 have increased technical requirements in the production process of even non-technical sectors, which has brought engineers to the center of the development framework [1]. Diversity among engineers is also required to bring different perspectives on board. However, the engineering labor market is male dominated in most countries including India, despite various efforts to change this in the last thirty years, with some positive results. In 1991, women constituted merely 7% of total engineers enrolled in India, which increased to almost one-third in 2020 [2].

Early in 2020, the COVID-19 pandemic led to a precautionary complete lockdown by the Government of India on 25 March 2020, which continued to the end of May. Further, opening up from lockdown was implemented in a phased manner, causing disruption in the production process. As a result of the lockdown, the demand and supply of products and services drastically decreased, which led to a decrease in production levels [3]. This had a negative impact on employment, income, and well-being, and has resulted in mental distress for the workforce. Within the production system, special attention must be paid to women due to their dual responsibility and secondary role in the labor market. During times of economic downturn, the divide between women and men generally increases [4], as evidenced during the first year of the pandemic. Further, there is evidence of decreasing gender equality in general [5–10], and for women in Science, Technology, Engineering and Mathematics (STEM) in particular [11–14].

1.1. Impact of COVID-19 on Indian Women Workers

Women workers are employed in a wide spectrum of activities ranging from agriculture to urban micro-enterprises, as assistants in big enterprises to high-end workers as

administrators. Even though the labor force participation rate for women is very low in India (less than 11%), 13.9% lost their jobs by April 2020 and 49% by November 2020. The female labor force participation rate (FLPR) among urban women fell to 7.35% (compared to 9.7% in 2019–2020). The rate continued to fall to 7.2% in October 2020 and 6.9% in November 2020. The FLPR among young women (in their early twenties) fell from 14.3% to 8.7% in a year. Based on past experience, it will take years before this damage is repaired if there are no more economic shocks. Recovery as a result of post-pandemic efforts has benefitted more men than women [4]. Women are feeling more exhausted, pressured to work, and burned out according to the McKinsey report on Women in the Workplace 2020 [15].

1.2. Impact of COVID-19 on Women Engineers and Scientists

Many studies on women in STEM worldwide have found more or less the same results. Women academic scientists in U.S. research institutions have experienced both positive and negative impacts of COVID-19, with the negative impacts outpacing the positive. A more concerning fact is the stark difference in negative impacts of COVID-19 by gender, rank and care work. Women researchers are significantly more likely than men to report inability to concentrate on research activities, particularly among those with children at home, resulting in less time for research as well as fewer grant submissions and publications during the pandemic [16]. Based on a sample of faculty across eight different countries including the United States in 2020, a study found that women scientists who have at least one child aged five years or younger were more likely than men to report that the pandemic led to a change in childcare routines that has reduced research time by approximately 20% [17]. A study conducted by the Australian Academy of Science between December 2020 and June 2021, with a focus on listening to the first-hand experiences of women in the Asia–Pacific STEM workforce, found that the COVID-19 pandemic has exacerbated pre-existing gender inequity across the Asia–Pacific region. A significant number of respondents reported a reduction in work productivity due to work-from-home arrangements during the lockdown. They mention that it has blurred the boundaries between the workplace and home as well increasing their domestic and caring responsibilities. Further, precarious and insecure work arrangements have reduced access to research facilities and workplaces [18]. Many editors of established scientific journals have indicated an overall increase in manuscript submission but most of them are authored by male researchers. In fact, a decrease was noted in the number of manuscripts submitted by women authors [19]. The Australian Academy of Science has suggested a regional collaboration along with supportive and understanding workplaces and communities to minimize gendered impacts of the pandemic on the STEM workforce [18]. The Organization for Women in Science for the Developing World (OWSD) conducted a survey involving its more than 5000 members between March and June 2020. Approximately two-thirds of members expressed that they could not travel to conferences or other important events. Women also reported interruptions to experiments or fieldwork (56%), teaching duties (31%) and course attendance (22%). Further, members experienced publication delays (20%), suspension of ongoing funding and difficulty in finding collaborators (17% each), lack of time to submit funding proposals (16%) or publications (14%), missing out on business opportunities or losing clients (13%) and being unable to take exams as scheduled (11%). Just less than 5% of respondents reported directly losing their job as a result of the pandemic. Due to increased domestic responsibilities, on average, 44% of respondents had to cut back on their working hours. More than half of respondents reported that childcare fell mostly to them including home schooling. However, there were some benefits, such as more flexible working hours (54%), expanding professional skills (42%), more time to work on research (27%), investing in new technologies for telework or tele-study (26%), broadening public engagement (20%) and augmenting scientific publications (19%). Many members reported being involved in the pandemic response. Some of them were undertaking research on the coronavirus itself (4%) such as to develop treatments or vaccines, studying the impact of the coronavirus on other health conditions

or its societal or economic impact (14%) [9]. In another 2020 study of faculty affected by the COVID-19 pandemic, researchers interviewed 80 academics who were mothers in the United States (25) and Italy (55). These women reported reductions in research productivity due, in part, to the need to devote more attention to teaching online courses, which was very difficult with small children at home. Both real-time and asynchronous online teaching were interrupted by children's demands, cries, or other background noise. Moreover, women reported a perceived cognitive deficit from managing the demands of children [20]. Another study on female employment (non-STEM) in Japan found that the employment rate of married women with children decreased by 4%, while that of those without children decreased by only 1%, implying that increased childcare responsibilities caused a sharp decline in employment among mothers. Further, mothers who left or lost their jobs appear to have left the labor force even several months after school reopening. In contrast to women, the employment rate of married men with children was not affected, which may have hindered progress in narrowing the gender gap in employment [5]. Time spent on domestic activities increased steadily during lockdown and mothers working from home were faced with difficult and conflicting roles, which put more pressure on women. Women who were unable to access social support continue experienced heightened levels of stress in their attempt to combine family caregiving and work, which ultimately affected their overall well-being [7]. Several affirmative actions were taken to improve gender equity, especially in STEM fields in recent years. The pandemic may be having a detrimental impact on women and may jeopardize gains made [21]. So, in a nutshell, there is a real risk of losing the progress made in terms of gender equity in STEM fields. With this in mind, this paper discusses the impact of COVID-19 on women in engineering education and employment in India during the third year for two reasons. First, this population was chosen because they are highly educated and skilled, at the high end of the labor force spectrum, and although female labor force participation in India is low and U shaped, as per the Periodic Labor Force Survey (PLFS), 2019–2020, the female labor force participation rate among women in engineering education and employment is very high (35%) [22]. They have digital skills through which they can interact and collaborate worldwide. The second reason relates to the Indian culture and the strong family bonds therein. How these women are dealing with these factors will be interesting to examine.

2. Theoretical Framework and Objective of This Study

Engineering is considered as related to machines which are both large and heavy. Engineering was first used to refer to military engineering, which may be among the reasons why engineering is seen as a male domain. The reproductive and productive roles of women and men are distinctly embedded in labor market participation. While professions such as doctors or nursing, which are related to care, love, and passion are seen as feminine, engineering is seen as sturdy, strong, mechanical and powerful, characteristics seen as masculine. So, women engineers may face 'intersectional stigma'. Goffman's seminal work of 1963 provides descriptions of the social processes of labels as well as social exclusion which lead to the development of such stigma [20]. The convergence of multiple stigmatized identities within a person jointly effect their labor market participation, health and well-being. While the historical and theoretical basis for intersectional stigma may be used for an enquiry of gender, there is little consensus on the following:

- How best to characterize and analyze intersectional stigma and/or
- How to design interventions to address this complex phenomenon—particularly in a cross-country analysis as the impact of such stigma may vary in different countries based on socio-cultural factors.

Nevertheless, it provides a useful framework to understand how various and overlapping factors of discrimination may impact an individual [14]. Researchers in economics, sociology and political science have examined how characteristics such as sex, race, and health status affect the individual and society. The sociologist framework of stigma based on socio-cognitive approaches discusses the psychological impacts of these stigma and

the processes through which these stigma (re)produce inequity [14,23]. This theoretical framework and the methodological implications of intersectionality theory are useful in understanding how the various and overlapping forces of discrimination may impact an individual [24]. With this in mind, the objective of this study is to investigate the following in light of COVID-19:

(i) Enrolment of women in engineering education,
(ii) Placement of graduate women engineers, and
(iii) Work and workplace experience of women engineers.

There are two hypotheses for the third objective

- H_{10} = positive impact of COVID-19 on women = positive impact of COVID-19 on men.
- H_{11} = positive impact of COVID-19 on women $\neq$ positive impact of COVID-19 on men.
- H_{20} = negative impact of COVID-19 on women = negative impact of COVID-19 on men.
- H_{21} = negative impact of COVID-19 on women $\neq$ negative impact of COVID-19 on men.

The findings of this study will provide insight into 'intersectional stigma' and give direction for designing programs/policies.

3. Materials and Methods

Both qualitative and quantitative research methods were used to analyze the research questions. First, two objectives were analyzed for pre- and post-COVID contexts in India. The third objective was discussed in light of the available literature for other countries and a comparison was made between male and female engineers. Steps taken for this study are as follows:

3.1. Descriptive Analysis of Secondary Data

All-India Council for Technical Education (AICTE) data are available on the AICTE dashboard and were used for descriptive analysis of enrolment and placement. Enrolment was analyzed by caste also. There is list of socially and educationally backward class population as scheduled class (SC), scheduled tribe (ST) and other backward caste (OBC) in the Constitution of India and the government may make any provision for the reservation for education and employment for them [25]. At present, there is quote for OBC, SC, and ST of the tune of 27%, 15% and 7.5%respectively in government education and employment [26].

3.2. Ethnographic Research

An ethnographic research method was used to understand and present the perceptions of women engineers on work and employment.

3.2.1. Participants Observation

Participant observation is a process used to learn about activities performed by research participants in their natural setting through observing them. It is very important to maintain a sense of objectivity through distance [27]. There is no unanimity among scholars and researchers about the standard procedure of participant observation [28]. Some researchers suggest that participant observation may be considered a supplementary method of data collection and tend to apply it together with interviews, group discussion and document analysis. They also accept participant observation as a flexible, methodologically plural and context-related strategy that may be integrated with various other methods [28]. In this study, participant observation was used to create a perspective and to decipher what is going on in the mind of the participants.

3.2.2. Unstructured Interview

Bernard (2011) discussed the following types of ethnographic interviews based on the level of structure and/or control of the investigator during the interview process:

(i) Less structured or ethnographer-controlled interviews—there is a total lack of structure or control and the ethnographer simply tries to remember and record conversations during the process [17].

(ii) Unstructured interviews are based on a clear plan that the researcher constantly keeps focusing on during the discussion and tries to navigate the discussion as per the objective of the study. At the same time, the researcher maintains minimum control over responses so that respondents may open up and express themselves in their own way. Such interviews may be used when the researcher has lots of time for conducting a long-term (classical) fieldwork and can divide the interview to many separate occasions. During unstructured interviews, both the researcher and the respondent know what is going on, without deception, and are aware that the discussion is more than "pleasant chitchat" [29].

(iii) The conventional format of descriptive interviews is similar to a natural conversation, and the ethnographer is just another participant [30]. As the author is a faculty member in a technological university, she has carried out both of the above-mentioned types of unstructured interviews several times in the last two years, in order to obtain perspective and to understand the psyche of engineering students and professionals.

3.3. Sample Size

It was decided that a sample of 384 engineers working and residing in India were required through the following formula for an unknown population [31].

$$\text{Sample Size} = (z^2 \times pq/e^2) \quad (1)$$

Here, e = the desired level of precision (i.e., the margin of error), p = the (estimated) proportion of the population which has the attribute in question, and q = 1 − p. The z value is found in a Z table.

Taking a confidence level of 95%, a z value of 1.96, and a margin of error (confidence level) of ±5%, the sample size required is:

$$\begin{aligned} &= ((1.96)^2 \times 0.5(0.5))/(0.05)^2 \\ &= (3.8416 \times 0.25)/0.0025 \\ &= 0.9604/0.0025 = 384.16 = 384 \end{aligned} \quad (2)$$

A Google form was generated for this paper. As there was limited time, known engineers were asked to fill the questionnaire and were asked to share the survey with their engineer friends. Along with introductory questions on age, marital status, engineering branch, etc., the Google form is having questions on positive and negative impacts of COVID-19. The last question was on bullying experienced by women engineers during the pandemic. Table 1 provides a gender and branch-wise profile of the sample.

As per the proportion of male to female enrollment at the national level in 2020–2021, almost 30% of respondents are female and the rest are male. All respondents are either from the corporate sector or start-ups.

Table 1. Gender and Branch-Wise Distribution of the Sample for This Study.

Branch	Male	Female	Total
Civil + Environmental Eng + Geo Engineering	53 + 0 + 0 = 53	20 + 1 + 1 = 22	73 + 1 + 1 = 75
Computer Eng + Information Technology + Software Engineering + Maths and Computing + Robotics System Eng	73 + 11 + 9 + 17 + 1 = 111	27 + 11 + 4 + 17 + 0 = 59	100 + 22 + 13 + 34 + 1 = 170
Electronics and Communication Eng + Electronics and Instrumentation + Electronic and Telecommunication Eng + Electronics and Computer	31 + 1 + 1 + 2 = 35	12 + 0 + 0 + 0 = 12	43 + 1 + 1 + 2 = 47
Electrical Eng + Electrical and Electronics Eng	14 + 4 = 18	8 + 1 = 9	22 + 5 = 27
Mechanical + Instrumentation and Control + Automobile + Production + Industrial Eng	27 + 5 + 8 + 3 + 1 = 44	4 + 1 + 1 + 0 + 0 = 6	31 + 6 + 9 + 3 + 1 = 50
Chemical + Petrolium Eng + Polymer Science and Chemivcal Technology	3 + 1 + 1 = 4	4 + 0 + 1 = 6	7 + 1 + 2 = 10
Bio-Technology + Engineering Physics	1 + 2 = 3	2 + 0 = 2	3 + 2 = 5
Total	269	115	384

3.4. Independent-Samples t-Test

An independent-samples *t*-Test is a statistical method to compare the means of two groups. The variance is assumed to be the same for both groups. The SPSS software was used for the tests. On the basis of the result of the Levene's test for homogeneity of variance, the first or second row has been considered.

3.5. Case Study

Yin identifies a case study as an 'empirical inquiry to investigate a contemporary phenomenon in real-life context, especially when the boundaries between phenomenon and context are not clearly evident' [29]. Stake (2005) adds that a qualitative case study often focuses on the experiential knowledge of a certain case which is closely related to social, political and economic influences. Moreover, to ascertain the credibility of a case study, descriptions and interpretations need to be made continuously during the period of the study [31]. The case study method involves a variety of interviews and an analysis of sites to acquire insights [31–33]. The respondent is also aware of the objective of the discussion. From the sample of 384 respondents, 52 women engineers agreed to further discussion on their professional life as well as their work–life balance during COVID-19, etc. Of the 52, 4 have children over 18 years old, 21 have children less than 18 years old and 27 are unmarried. Of the 21 women engineers who have children younger than 18 years old, 13 have two children and 8 have only one child. Three women engineers only have female children.

4. Analysis

Analyses were performed based on primary and secondary data.

4.1. Enrolment of Women in Engineering

It is clear from Figure 1 that there was a decrease in the enrolment of women in engineering in 2020–2021 from 2019–2020. Among the main reasons for such a decrease may be COVID-19, which has caused disruption in the economy and resulted in the loss of employment and earnings for many households. Consequently, COVID-19 has also resulted in dislocation and return migration for many households. In India, a daughter's engineering education is not seen as an expenditure but an investment because engineering

brides are more in demand in the marriage market. Traditionally, marriage is arranged by parents in India [34]. Further, the plus-two examination, a prerequisite to join graduate engineering programs, was delayed, which may have caused mental stress for students. Additionally, though there are provisions for educational loans from the commercial banks, the COVID-19 pandemic has adversely affected the financial health of the banking system as well and that channel may have also partially dried up or become critical in terms of their usual banking services [35].

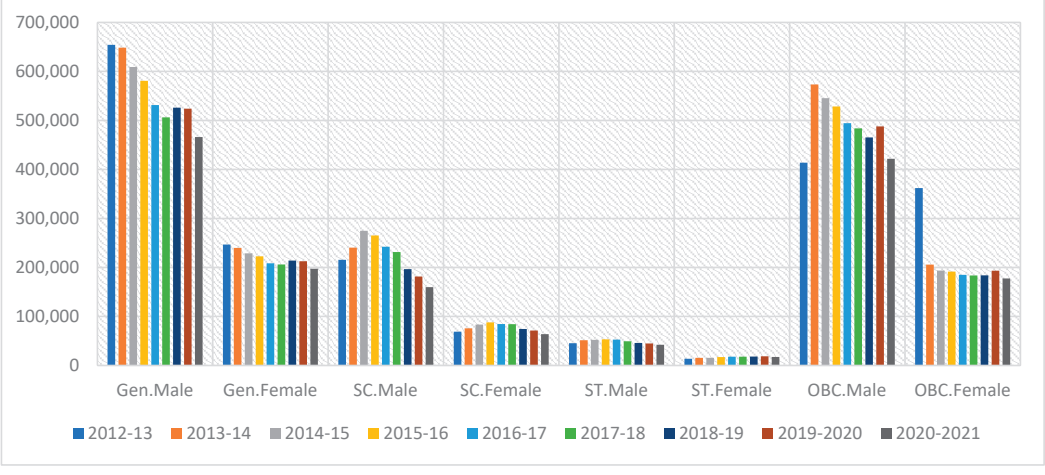

Figure 1. Caste-Wise Enrolment of Women in Engineering Education by Year. Note: OBC = other backward caste; SC = scheduled caste; ST = scheduled tribe. Source: [36].

When looking at the data up to 2019–2020, it is evident that the decline is not limited to the post-pandemic era but that there was a general decline in enrolment in the last decade for both genders (Figure 1), although at different rates. Though an investigation of the reasons for such a decline is beyond scope of this paper, reasons include the recession of 2008, the demonetization of the Indian economy in 2016 and the imposition of the Goods and Services Tax (GST), which have adversely impacted the market. Another reason may be Industry 4.0, where much of the repetitive or supervisory work will be performed by robots [1].

4.2. Internship and Placement of Women Engineers

As per the Indian engineering education system, industrial training is mandatory in the graduate curriculum. Companies recruit candidates into placements before completion of their degree programs. In October 2020, the Society for Women Engineers (SWE) conducted a survey of engineering students in India to understand how the COVID-19 pandemic was impacting their academics. While most students indicated that they had no intention of taking any time off from their studies, three-quarters expressed concern about delaying their graduation date due to the pandemic. Most were also concerned about the impact that this will have on their professional opportunities, such as the availability of internships [37]. There was not a significant decrease in placements from colleges and universities located in metropolitan areas but when the data were considered at the national level, a decrease of 19% was recorded (Table 2).

However, with the second year of the pandemic, the country has learned to survive and the economy has bounced back. During the second quarter (July–September) of the fiscal year of 2021–2022, the Indian gross domestic product (GDP) increased by 8.4% in contrast to a 7.4% contraction during 2020–2021 [38]. According to the figures issued by

the Union Ministry of Statistics and Program Implementation, the GDP at constant prices in the second quarter of 2021–2022 is estimated at USD 457.23 Billion, compared to USD 421.91 Billion lakh crore during the same period a year ago [39].

Table 2. Placement Data for Indian Engineering Institutions.

Year	Placement	Percentage Change from the Previous Year
2012–2013	559,625	---
2013–2014	613,105	109.5564
2014–2015	673,922	109.9195
2015–2016	701,506	104.0931
2016–2017	722,937	103.055
2017–2018	716,317	99.08429
2018–2019	795,624	111.0715
2019–2020	794,448	99.85219
2020–2021	648,436	81.62095

Source: [40].

The national-level data on placements for the current academic year are not available but lockdown has never been imposed throughout the country. The stakeholders of the Indian engineering education system have also gradually adjusted to the changed circumstances, popularly referred to as the 'new normal'. Opportunity for online education for entry, during and even continuing engineering education programs has increased. The online platforms were available even before the pandemic but were not used as much as they are now. The intensity of use has increased manifold. In a nutshell, digital innovation for different sectors of the economy is very much in demand and on the rise.

As most companies are opting to online modes for maximum productivity, there is bulk-hiring for students of computer and other related branches as these areas are in high demand. Almost 90% of the students of such branches (including female students) were already placed within two months of the placement period (2021–2022). However, they need to have the capacity to handle analytics, the ability to innovate and be capable of adapting to various sectors. Students, irrespective of their gender, are quite optimistic. According to the Centre for Monitoring the Indian Economy (CMIE), jobs for senior software engineers increased grown by 70%, while jobs for software engineers and for full stack developers have increased by 33% and 10%, respectively [41]. Though placement in traditional branches is slow, students in even these branches with the required knowledge on computer applications in relevant fields are in demand. The workplace is not going to be the same again. So, the onus is on the engineering education system to develop students for new workplaces and emerging market demand.

4.3. Work and Workplace Experience of Women Engineers during COVID-19

Women are not only studying engineering but also joining the labor market as graduate engineers. However, as they go up the hierarchical ladder, their number decreases due to conscious [1] and/or and unconscious biases [4]. In October 2020, a survey by the Society for Women Engineers (SWE) involving engineering professionals in India, aimed to understand how the COVID-19 pandemic was impacting their career plans. Among working professionals, there was general satisfaction with the way employers had responded to the pandemic and communicated about their efforts to address COVID-19 concerns among employees. Only 4% of employed respondents indicated that they were considering leaving the workforce. However, most men and women expressed concerns about losing their job and though concerns about the ability to find another job if needed were high across genders, women were more worried about their chances than men [37].

Almost a decade ago, 'work from home' was advocated and adopted as an affirmative action for the retention of women engineers in the labor market [35,42]. However, the same 'work from home' became unmanageable during the lockdown when travel was banned, even commuting for domestic help/maids and for food delivery systems such as Swiggy or Zomato. Women engineers and scientists have reported stress, being burned out and having no time for themselves. They have reported difficulty in managing both personal and professional duties. Women's opinions varied on how they integrate or segregate their work and non-work roles, acknowledging the difficulties they face in delineating work and non-work domains [3]. However, once travel was allowed again, senior members of families came to their rescue. Social help plays a crucial role in the professional growth of a woman [43]. As children's classes went online for children, children could attend classes from their grandparents' house. One of the respondents commuted everyday along with her husband and children to her parents' house, where her mother, who is herself a retired professor, took care of their kids, and prepared lunch and evening snacks so that the respondent and her husband could concentrate on their work. Another respondent sent her school-aged daughter to her parents' place in another city. Another respondent with a small kid hired full-time domestic help. She was happy even during lockdown as she was able to combine her work with monitoring the full-time domestic help.

Respondents were asked to give positive impacts of COVID-19 (Table 3). Responses included upskilling, opportunity to collaborate, more time from not needing to commuting, company growth being more than expected, working from home, more time to focus on themselves, and one respondent wrote that it taught him to live with limited resources. Engineers in digital branches also said that it was good for career and/or salary hike. In India, women's participation in the digital branches of engineering is very high.

Table 3. Difference between Male and Female Responses on Positive Effects of COVID-19.

	1 = Male 2 = Female	N	Mean	Std. Deviation	Std. Error Mean
Positive Effects of COVID-19	1	269	2.88	2.834	0.173
	2	115	2.43	2.128	0.198

An independent-samples *t*-Test was conducted on SPSS (IBM®, Armonk, NY, USA) for the third objective.

Levene's test for equality of variance F = 8.617 at Sig = 0.004, which is lower than 0.05. This means the variability in the two groups is significantly different and violates the assumption. However, SPSS also provides results after taking due measures which are shown in the second row. Here, the *t*-test for equality of means is 1.729 at Sig (2-tailed) = 0.085 (which is >0.05). There is no statistically significant difference between these two groups and the difference in means is by chance.

So, the result fails to reject the null hypothesis (H_{10}).

Respondents were also asked to give negative impacts of COVID-19 (Table 4). Responses include issues related to work–life balance, being burned out and tired, COVID-19 infection, losing loved ones, inability to concentrate/issues with mental health, lack of jobs, employment risk, career stagnation and lower increments in salary. Then, an independent-samples *t*-Test was run on SPSS to infer variations in the responses based on gender.

Table 4. Difference between Male and Female Responses on Negative Effects of COVID-19.

	1 = Male 2 = Female	N	Mean	Std. Deviation	Std. Error Mean
Negative Effect of COVID-19	1	269	2.74	3.128	0.191
	2	115	2.64	3.102	0.290

Levene's Test for equality of variance F = 0.425 at Sig = 0.515, which is greater than 0.05. This means there is equal variability between the two conditions assumed. Here, *t*-test for equality of means = 0.277 at Sig (2-tailed) = 0.782, which is greater than 0.05. Therefore, the differences between condition means are due to chance. So, the result fails to reject the null hypothesis (H_{20}) at 95% level of significance.

The integration of work life with personal life, family and paid support has worked as an opportunity as well. Blurring the line has resulted in increasing productivity as Brue 2019 has discussed in reference to women in leadership positions [35]. In fact, women engineers were working towards COVID-19 solutions [29]. Saving time not needing to get ready to go out or commute has increased time available for productivity including for upskilling or talking and negotiating for collaboration. There is no need to spend extra time obtaining VISAs, planning travel, etc., and no need to spend money for purchasing tickets for international travel, lodging, etc.

5. Discussion

The engineering workplace is male dominated and many women do not feel very comfortable in it, and hence they deviate from core engineering fields to other managerial positions or withdraw themselves from the labor market, which is ultimately a loss for the engineering sector [44]. Although the pandemic has impacted everyone, the impact was gender biased. Women were more adversely affected by the pandemic in India and elsewhere than their male counterparts. However, Indian women workers do not form a homogenous group but are part of a quite heterogeneous spectrum and women engineers are at the high end of it. Being from the same socio-cultural background, Indian woman engineers share similar concerns to other Indian working women, but these differ based on their income level and educational background. Compared with women engineers in other countries, however, Indian women engineers have the same economic and educational backgrounds (Figure 2).

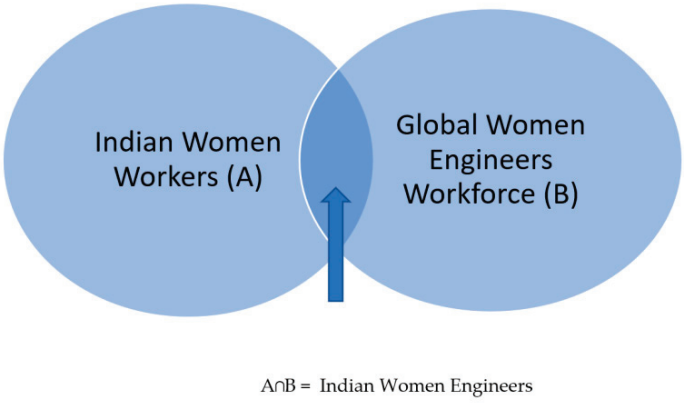

Figure 2. Indian Women Engineers.

There is a dual effect of COVID-19 on women engineers. Firstly, in times of economic downturn, the divide between women and men is bound to increase due to the well-established inequality increasing the pressures of a recession (15). Secondly, women are made to perform a disproportionately larger share of care work; as such, women engineers are also expected to do so.

As per the available literature, the pandemic has more adversely affected women workers. However, as per the present study, women engineers may not have been affected as much as other women workers in India. They report being satisfied with the way employers have managed the situation and while a very small section of them lost their

jobs, others obtained salary hikes. In fact, this variation is according to engineering branch. Women engineers were able to integrate their professional and personal lives due to the generous support from their families, which their international counterparts may not have. One of the respondents, a twenty-six-year-old entrepreneur, said that "lines of work life balance have gotten blurred. I'm not doing that well mentally and keep feeling burned out. Also lifestyle has gotten lethargic". However, she was happy with her professional growth. Another response, "My company is video based so it has been gaining growth faster than expected". One of the participants informed me that she was able to introspect more and pick up more healthy habits. A 60-year-old civil engineer who is a co-owner of a structural engineering firm said, "We learnt how to manage work through employees working from home from different parts of India". A 27-year-old electronics engineer working in a multinational company said she was happy to get a chance to collaborate internationally but is facing difficulty achieving work–life balance. With engineering knowledge and different perspectives, women engineers need to innovate to adjust within the 'new normal' workplace and they are capable of doing this, as three women engineers demonstrated by developing a remarkably accurate respiration monitoring device called 'rayloT' [45].

However, there is evidence of bullying experienced by Indian engineers in the literature [1,42]. Women engineers are subjected to emotional bullying at the workplace [1]. While physical and verbal bullying are bad, victims state that emotional bullying is worse, maybe due to destroying the self-confidence of victims [42,46]. Types of bullying experienced by women engineers include discrimination at time of joining, being given a greater workload, fault finding, being ignored during meetings, lack of promotion and lower salaries [1]. Although the survey in this study included a question on bullying, it was left blank by most respondents. Only 15% of the women wrote that they received lower salaries compared to male counterparts for the same work. In the discussion during case studies, most respondents said that though it is endemic to a certain degree, no new measures were introduced during the COVID-19 pandemic.

Stakeholders in the engineering sector, including regulatory bodies, scientific societies and employers, need to be more supportive by enhancing opportunities for enhancing skills and helping workers manage their work–life balance.

6. Conclusions, Suggestion and Limitation of This Study

The country-wide precautionary lockdown measures during the COVID-19 pandemic impacted growth adversely, thus eventually more adversely affecting the employment, income and well-being of women workers than their male counterparts as tends to happen in times of economic downturn, with the divide between women and men increasing due to the well-established inequality increasing the pressures of a recession [15]. However, women workers do not make a homogenous group. They are heterogeneous and the socio-economic forces of the labor market impact them differently. Women engineers are at the high end of the spectrum. The engineering labor market is also said to be male dominated and, as a result, many women engineers deviate or leave the labor market. This may be taken as an example of the convergence of intersectional stigma on women engineers in India due to which they have fared better than other female workers in the Indian economy and perhaps better than women engineers in countries where support from family members may not be as strong. An attempt was made to analyze intersectional stigma from the results of the independent-samples *t*-Test of a sample of 324 engineers and case studies of 52 woman engineers which clearly show that women engineers have performed on par with their male counterparts, with family and hired support. While there was some decline in the placement of graduate engineers in the first year, numbers have bounced back as the country deals with the pandemic. Companies are looking for more and more of a digital base for their production process. So almost 90% of students in the digital branches of engineering including women students were recruited within three months of the placement period. Regulatory bodies, scientific societies and employers need to enhance opportunities to enhance core digital skills and their application and help

workers manage their work–life balance. Bullying needs to be addressed in the working environment. However, the most important contribution of this paper is the analysis of intersectional stigma in terms of women engineers. The findings may be used as a reference for designing affirmative action towards increasing the number of women engineers. The snowball sampling method used for sample selection and responses being gathered using a Google form may be considered limitations of this study but obtaining responses from high-end workers in a small period of time is not easy.

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Data Availability Statement: Secondary data were open access and available online in anonymized form; therefore, no additional approval was necessary.

Conflicts of Interest: The author declares no conflict of interest.

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Worker Agency versus Wellbeing in the Enforced Work-From-Home Arrangement during COVID-19: A Labour Process Analysis

Sheldon M. Bromfield

Adult Education and Community Development, Department of Leadership, Higher and Adult Education, Ontario Institute for Studies in Education, University of Toronto, 252 Bloor Street West, 6th and 7th Floor, Toronto, ON M5S 1V6, Canada; s.bromfield@mail.utoronto.ca

Abstract: This article offers a theorization based on selected literature focused on problematizing the work-from-home phenomenon. It incorporates labour process theory and the work-from-home literature to dissect the impact of enforced working from home procedures during COVID-19. The article presents the advantages to working from home from the existing work-from-home literature and draws on labour process theory to challenge these advantages. The disadvantages discussed in this article include constant availability, enhanced productivity with unpaid labour, loss of worker subjectivity, identity conflicts, and extracting productivity while downloading costs of production to workers. While the advantages include enhanced autonomy, reduction in unproductive time and increased affordances in participation, empowerment and worker agency, the article weighs the potential, parallel impacts of worker control and reduction in personal wellbeing. Although it seems that the work-from-home arrangement is, predominantly, here to stay, I argue that workers consent to their demise, as the dark side of enforced work-from-home arrangements detract from the benefits of in-person social relations of work and learning.

Keywords: work from home; worker identity; work–life; wellbeing; agency; labour process; COVID-19

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1. Introduction

The COVID-19 pandemic has disrupted regular working life that involves commutes to work, in-person social interactions with co-workers, work–life boundaries, productivity management, control-resistance power relations, worker subjectivity and agency as well as overall worker wellbeing. These all coalesce to infringe on the quality of work life, and highlight an imperative to re-establish the disintegrating work and family boundaries. In this article, I critically theorize the work-from-home phenomenon, which disrupted regular work and home life as we know it. Working from home is not new, but this type of enforced, wide-spread working from home constitutes a paradigm shift with many more people working from home based on the pandemic and government lockdown procedures. Working from home has benefits and generally workers tend to prefer working from home, as it can provide freedom and control while removing some of the hassle in day-to-day commute and in-office tensions that may occur. Nevertheless, with these advantages, I would argue that workers typically ignore or, at the very least, disregard the potential disadvantages or trade-offs involved in transitioning to full work from home arrangements.

Of course, some workers, such as those considered essential services workers, had to report to work as normal during the pandemic, and considered functioning as within their status quo. This article is not primarily focused on those workers but on those that can work, remotely, from home and as such were required to work from home since the World Health Organization (WHO) classified the coronavirus (COVID-19) disease a pandemic and countries began implementing distancing procedures. These distancing procedures have resulted in employers, even those most reticent, agreeing to manage workers remotely

when they were not inclined to allow this prior to the pandemic. As such, some workers obviously see this opportunity as a boon, and do not wish to return to the original status quo of attending an office for work.

I will apply the Foucauldian tradition of labour process analysis to theorize the advantages and disadvantages presented to workers who are able to work remotely with the use of digital technology. Generally, any labour process will include the entire production process at work including tools of production, the job design, power relations including but not limited to manager–worker relationships, and the social relations within the activity of paid labour [1]. Labour process theory (LPT) is firmly established as a robust Marxist conceptual framework in the sociology of work [2], often used to analyse the tensions of paid work in capitalist economies. The problematic nature of working from home requires varying levels of analysis, and aside from LPT's Marxist roots, it has a Foucauldian tradition that brings in the subject worker [3,4]. Labour Process Theory is an analytical tool that examines the tensions experienced in work in capitalist societies. However, within the sociology of work debates, LPT has rarely been used to directly address issues related to digital work [2,5], let alone working from home. The labour process approach takes into account workplace tensions, such as social conflicts of autonomy/agency and control/resistance, that exist in paid labour, between employers and workers. Although workers feel a sense of control in working from home, they may be unaware that digital technology is used to objectify and control-manage them in this new labour process. In theorizing this "new" work-from-home phenomenon, instituted on a larger scale due to the COVID-19 lockdown and distancing procedures, I seek to contribute to the work-from-home literature and labour process debates in using labour process theories of control-resistance and worker agency to problematize the work-from-home phenomenon.

First, I begin by introducing LPT as a "method of thought"; although at times considered a classic theory, LPT is currently being used today to examine workplace tensions. Second, from the vantage point of the worker, the article looks at possible advantages of working from home using recent work-from-home literature. Third, the article incorporates classic Foucauldian LPT literature, specifically regarding work and technology, to theorize the disadvantages of working from home. Last, the article presents commentary on these two sides of working from home throughout the pandemic, and envisions the future of this flexible arrangement romanticized by workers who are allowed this affordance by the industry in which they work, and more importantly by digital technology.

2. LPT as a Method of Thought

Rooted in Marxist labour theory of value, LPT was established by Braverman's classic work on *Labor and Monopoly Capital* [6]. His thesis focused on deskilling shop floor workers through separating the conceptualization of their work tasks to the control of management. As such, classic LPT has been used to analyse micro level tensions between workers and their management (control) and the execution of their work (autonomy). The tensions created by management control and worker autonomy are primarily derived from use values, and the imperatives of capital accumulation impel employers to consistently revolutionize their labour process to extract productive use values from their workers [7]—more so in the face of a crisis such as a global pandemic. Although a classic of its time, scholars have drawn on LPT to analyse freelance work in the gig economy, such as food delivery services mediated through online apps [5], and emotional labour and control in examining the role of digital platforms in employer–worker relations [2]. LPT is underutilized in the work-from-home literature and provides a novel approach to expand our understanding of the current enforced work-from-home phenomenon, which is made possible through digitization of knowledge work. Remote work using digital technology tends to include computer algorithms. Drawing on classic LPT, Kellogg, Valentine and Christin's review of algorithmic studies demonstrates how employers control-manage "workers by restricting and recommending, evaluate workers by recording and rating, and discipline workers by replacing and rewarding" [8] (p. 368). This research also examines how algorithmic

control produce economic use value for employers through lowering labour costs while simultaneously boosting productivity.

My analysis of the enforced work-from-home phenomenon is informed by LPT due to the strengths of the theory derived from its enduring and evolving tradition throughout the years. Since Braverman, LPT has been expanded through wave research [9] in which scholars have critiqued and improved the theory. After the first wave of LPT theorists, second-wave theorists, such as Burawoy, demonstrate how workers consent to the control mechanisms operationalized at the point of production [10]. Burawoy's analysis shows how workers reproduce the relations of power through a "game of making out", where workers themselves exercise their agency to benefit from control mechanisms in the performance reward schemes of management. Successive third- and fourth-wave scholars wrestled with the lack of worker subjectivity, which they deemed as a predominant weakness of classic LPT analysis. Critical theorists, such as Knights, introduced Foucauldian studies to create a post-structuralist/hybrid analysis [11] that concentrated not only on the tensions and social relations between workers, tasks, and management, but also on the impact of the organizational structure of production [3]. It is within this longstanding Foucauldian tradition of LPT that I draw my analysis, as it offers insights into potential challenges for worker identity, agency and subjectivity within an enforced work-from-home workplace structure.

Recent COVID-19-related work-from-home research tends to prioritize health concerns as drawbacks of enforced working from home, including stress, worker burnout and poor work–life balance [12,13], and provides recommendations for long-term working from home [14]. As such, LPT is typically not utilized as a theoretical lens to interpret these findings. After presenting the advantages of working from home, as purported by the work-from-home literature, I draw on Foucauldian LPT to offer potential disadvantages that might be overlooked by those who are forced to work from home during the pandemic.

3. Advantages

3.1. Increased Participation and Reduction in Unproductive Time

Enforced work-from-home arrangements can increase participation in workplace learning through virtual affordances, integrating core and periphery workers, and generating new skills in the process. Although Braverman's work [6] contends that paid work under capitalism involves technological revolution that tends to deskill workers, this view has been critiqued as a unidimensional thesis [15]. Braverman's arguments largely ignore the possibilities for the antithesis of upskilling and improvements in worker agency and general workplace democracy, as a result. The digitization of work has somewhat leveled the playing field for some workers, where core and periphery workers [15] are able to participate in online workplace training and skills development activities with the wider use of digital technology in the way in which work from home has largely removed time–space boundaries. Moreover, adapting to the use of sophisticated software apps and devices, arguably, has expanded the utilization of a range of skills required to effectively use specific information communication technology (ICT) [4] that may not have been appropriated by some workers, specifically workers who may have been unfamiliar with the use of these ICTs in regular in-person work. This upskilling might be subtle, and can be termed "generic" skills development, and might only occur in the periphery workforce of an organization who do not normally work remotely with digital technology. Digital technology has also created affordances that somewhat level the playing field by removing "power distance" [16] between not only management and workers but also core and periphery workers. As such, generic skills are arguably being developed by a wider cross section of workers than prior to the pandemic, as they are forced to use technology in, and adapt to, new ways of working remotely from home. Labour process analyses of clerical, administrative, and service work, have long identified"the rise of 'generic' skills" and the adaptability of workers [11] (p. 919) in gaining additional tacit skills to remain productive. Empirical studies of working from home during the pandemic have demonstrated the existence of a significant correlation between worker autonomy while

working from home and productive engagement [17]. The ability of workers to adapt and continue to be productive can also be determined to be a positive outcome from the shift to work-from-home practices.

Little or no commute time and the convenience of working from the comforts of home eliminates unproductive time. In addition to less time in commute, which can be transferred into productive time, some workers might have less in-office distractions, which also boosts productivity. This boost in productivity was confirmed in a May 2020 Survey of Working Arrangements and Attitudes (SWAA) of working Americans with 30,000 responses. According to this study, working from home improves productivity by approximately 4.5 percent, as respondents confirm "better than expected" enhancements to their productivity since working from home [18]. To some extent, these productivity enhancements come from control of time and autonomy [19]. Working from home eliminates commute time and reduces ritualistic social interactions that are typically understood as unproductive. Converting unproductive time into productivity time slots can provide workers with a sense of accomplishment, as this feeling of extra-productivity satisfies the concern with getting the job done. Work-time autonomy applies to workers who are able to dictate when they start and end a workday. In this sense, workers are able to control the part of their labour process that has to do with labour time, which otherwise they might have had less control over because of the separation of work and home spaces, which results in a time to end work to return home. Even though, prior to the pandemic, some workers carried work home, unproductive time slots that were outside of their control existed in commutes to and from work, and entertaining interruptions for social interactions even within and outside of personal breaks at the workplace.

3.2. Increased Worker Agency and Empowerment

Worker agency and control over workspace design can be enhanced by working from home. In this regard, the pendulum between capital and labour has shifted slightly towards labour, as employees have increased agency to co-develop and self-create in becoming more of an active agent [20] in determining their work design, specifically in the way they choose to communicate. More broadly, in advanced capitalist economies, the social relations of production tend to be antagonistic [7], where the workplace can often become contested terrain [21], and a site for micro- and macro-aggressions, all of which can be mitigated with less forced interactions among co-workers by fragmenting the office space through the comfort of the individual worker's home. Workers may determine that working from home creates a safe space for emotional health and wellbeing because they are able to avoid tense in-person interactions. Cook, in her book *Making a success of managing and working remotely*, lists avoidance of office politics, reduced stress, and improved work–life balance and wellbeing as benefits to employees who work virtually [22] (p. 15). Although virtual and online interactions can be quite toxic, as observed on social media, workers can hide from and possibly avoid less pleasant and unwanted confrontations with co-workers and management. This perception of freedom and comfort emanates from a level of control over what would otherwise be coerced interactions born out of ritualized courtesies, office politics, and/or the in-person labour process that involves in-person team meetings and one-to-one in-person interactions. Virtual communication distills the level of everyday workplace interactions from "the primary means of communication, namely face-to-face communication" to "quinary communication" mediated through digital technology [23] (p. 384). This distillation of the means of communication grants agency to the worker in two ways: (1) simplifying the communicative process through digitized communication channels; (2) providing a choice for a more relaxed locale for communication and a mechanism to escape otherwise unwanted in-person social interactions. Working from home provides workers with increased power to manipulate the work environment and better navigate the communication landscape of their work.

Working from home empowers workers to subvert the labour process using digital technology and the work-from-home arrangements to their advantage. Although workers

subvert work processes to sustain and enhance production [3] (p. 309), even in the event of using technology to work harder in both self-sacrifice and self-satisfaction, they also find workarounds and pursue their own self-interests. More broadly, technology provides some workers a way to avoid the gaze of the employer, and find areas of reprieve and relief either from the boredom of monotonous work or the stresses of work by taking advantage of the technology to access higher levels of freedom never accessed before. In this scenario, workers tend to be drawn to opportunities that exploit self-interest and identity [24]. For some workers, finding ways to take control of their labour process is more possible within work-from-home arrangements. Workers that find workarounds and ways to prevent overwork can effectively "take back time" through manipulation of digital technology and the flexible working from home arrangements that provide gaps in the panoptic gaze of management. "Taking back time" can be analysed from a control-resist standpoint in which workers assert their subjective desires to resist overtly "controlling systems" of management [25] (p. 272). For example, some workers might find ways to login and be away from their workspace attending personal matters, while other workers might become free to select the hours of a day in which they work. These are probable instances in which work-from-home employees, objectified by technology used to micro-manage their productivity and performance, and track their availability, become empowered to subvert technological systems of control. As human beings, workers are never fully controlled by systems of management and, oftentimes, they instead, manage to find loopholes in these so called "controlling systems" that benefit their self-interests.

4. Disadvantages

4.1. Constant Obligation to Work

Given that a function of management is to track productivity, the activities of workers themselves have to be tracked, and from managerial perspective systems of tracking are implemented to ensure workers productivity. Ensuring workers productivity has always been a key function of management [21]. Cooke's research has identified this type of tracking as a 'seagull' management [26], a scientific managerial style of statistically measuring output of workers. Digital technology allows management to know when workers are "away" and not at their computers and when "available" in a productive state. This binary on-or-off state can "mechanize" workers into feeling as if the available status is the consistent preferred state. Aside from the consistent availability, knowledge workers who work from home remotely may contend with a dilemma of overwork from compulsive flexibility [15], derived from management's expectation that employees that work from home are always connected to work through a digital device.

The increased surveillance that stems from a scientific type of management tends to result in strict measurement of labour hours and measurement of achieved objectives. The obsession with tracking performativity and tracking the productivity of workers feeds into management's control imperative [21]. Workers working from home will need to be monitored to safeguard organization productivity and efficiency levels. Digital technology has supported higher levels of vigilance over the activities of workers, and this enhanced level of surveillance inevitably transforms the labour process [4]. The recent work-from-home literature has confirmed that some workers are working longer hours, missing lunch breaks, and eliminating leisure time at home due to the incessant need to remain available and productive [19–27]. Working from home digitizes the labour process and presents workers with new challenges in negotiating work versus personal time [28], as they seek to maintain personal wellbeing and remain productive under management's digital control.

4.2. Extracting Productivity While Downloading Costs of Production and Wellness to Workers

In granting workers an appearance of freedom in working from home, some employers have also downloaded some of the costs of production to employees who work from home. Extra internet data cost and the troubleshooting aspects that may be involved in, for instance, poor internet service connections, are largely the responsibility of the

worker whose home space, ergonomic, and technological set-up might be incompatible with the demands of office work. The pandemic has not only transformed space-time in everyday work–life [23], but also expanded the technical and, to an extent, the economic responsibilities of the worker. Occupational safety and health (OSH) concerns are now fully in the ambit of those workers who work from home. Even if the employer provides the computer equipment and the home workspace furniture, the employee is responsible for ensuring the safe and ergonomic design of their home workspace that may or may not be in line with workplace OSH regulations. The pandemic has provided an opportunity for employers to unintentionally abdicate most of this responsibility and transfer the social costs of workplace safety to the worker [29]. While workers could consider employer-enforced safety visits to be invasive, larger employers could consider mandated inspections to evaluate the safety of individual home workspaces to be an expensive proposition and an unreasonable expectation. Work-from-home arrangements, therefore, provide a sense of agency on the part of the individual worker, a common-sense approach to the home office set-up, and a potentially harmful physical work design. This process realizes the capitalist dream of individualizing and responsibilizing the wellbeing of workers who likely sit in front of their computers with limited movement in their home workspace. These workers must now problem-solve the costs of their inactivity and the limitations of the work-from-home set-up.

Since work–life boundaries are virtually indistinguishable when the workspace is at home, workers who are ill might be tempted, and or expected to continue to work and not report their illnesses. Typically, workers who are not well enough to come into office for fear of spreading their illness or simply for recouperation time, due to an ailment that creates an inability to work or work at full capacity, report sick and absent from work. In the current work-from-home phenomenon, and with the help of digital technology, workers who suffer from illnesses that are not chronic enough for a doctor's visit or hospitalization may feel hesitant to call-in sick, and feel compelled to continue to work, albeit, perhaps, in a more limited fashion. This mindset and practice are detrimental to workers who are legitimately ill and require personal time for self-care to recover. Moreover, working while ill interferes with a worker's ability to reproduce themself to labour another day. Working while ill is similar to extending labour time beyond a worker's required time to reproduce self and signals a problem of work intensity [6]. In this scenario, non-chronic illnesses tend to remain hidden, as workers might fear disclosure and that their employers' perspective is one of little concern because they are already at home, in a state of "comfort", and therefore, still expected to be available to work. There is a possibility that working from home desensitizes co-workers and managers to the condition of an *unwell worker* with an *invisible* illness [30] and exacerbates the interpellation of the ideal worker who is self-sacrificial in the name of productivity. As a result of internalizing the employer's and co-worker's "gaze" [31], in an effort to manage professional image, the ideal worker is a self-regulating subject who remains productive notwithstanding the circumstances. The lack of work–life boundaries shape individual work identities into one that is more amenable to exploitable labour and consensual to placing the needs of the employer first.

4.3. Always Connected Produces Time-Slots for Unpaid Labour

Elements of Foucault's work on Bentham's panopticon has been commonly applied to organizational and workplace analysis, as an electronic panopticon, specifically with regard to call centres [32]. Digital communication technology reconstitutes the home space into a workspace that can be control-monitored, such as a call centre. Foucault's conceptualization of Bentham's panopticon prison design defines it an apparatus for "creating and sustaining power relations, independent of the person who exercises it; such that the inmates should be caught up in a power situation in which they are themselves the bearers" [33] (p. 10). Although workers are not inmates in a prison, their work is controlled and mediated through the digital technology (apparatus) appropriated to perform their work. This mediation creates a watchful gaze that these work-from-home employees are impelled to

bear, whether consciously orsubconsciously. The corollary is the obligation to work longer hours in the desire satisfy management and appear productive. This extra labour time that may have otherwise been spent in personal time or time in commute is now mediated by digital technology. In management's supervisory function to ensure productivity and efficiency, technology will assume the role of "watchperson", given that the workers are not in direct line of sight of management.

Excess labour hours over commensurate compensation is the age-old antagonist in work under capitalism. For many workers who work from home, since the pandemic, digital communication technology extends their labour time [23] and essentially the work day. Whenever employees are compelled to work more hours to meet deadlines and increase productivity, they produce surplus values for their employer. The employer benefits more when employees work for longer hours with little or no change in wages. Whenever more work is carried out for the same wages, the worker technically takes a pay cut. Increased productivity with little or no change in labour costs can be argued to fulfil the capitalists' dream.

4.4. Loss of Subjectivity

Within the realm of the community of a workplace, workers are subjects in relation to other subjects. However, becoming a subject at work requires other subjects to co-construct occupational identity. "Becoming a subject in a community also means becoming an active agent, and this is based on the subject's reflective awareness of her/his identity position in the community" [20] (p. 2). While being a subject and co-constructing identities is never static but rather fluid and could be argued as perpetuated through virtual team work [16], remote work also results in limited opportunities to self-realize against a pervasive Other. The heavy reliance on digital technology to communicate can reduce meaningful social interactions that lead to self-discovery and belonging and presents challenges to situating oneself in relation to the wider community of workers. Recent studies of working from home have indicated that workers are less likely to communicate candidly with one another if not coerced [16]. The fight for subjectivity is a constant struggle within all forms of community. As Foucault observed, the objectification of people is a tension in the human experience [34]. A high probability for another form of opposition to subjectivity exists in digital technology. Workers might become even more objectified through the digital control [35] that occurs in work-from-home arrangements.

Worker objectification enhances in work-from-home arrangements as it eliminates the spatial-symbolic defensive resources against subjectification derived in the separation of home from office space. Insofar as the "appearance of freedom" disarms workers to the point where workers can feel guilty taking breaks, as working at home subjugates workers to living at the office.

4.5. Disruption of Regular Scheduled Life: Reduction in Social Interactions

Working virtually, from home, can foster a sense of isolation. Opportunities for social interaction, collective agency, derived at work from in-person and after-work experiences are reduced to online interactions. Arguably, virtual communication does not build relationships in the same breadth and depth as in-person social interactions. The relations of production become stilted in the confines of cyberspace and the multi-variant but individual home workspaces of co-workers and, sometimes, clients. More social and extraverted workers are likely to become the "guilty subject", alienated from elements of work that foster gregarious activities [36]. Becoming alienated from work involves alienation from the human capacity for community and relationship development. Although it is quite possible, with modern digital technology and social media, for virtual interactions to create meaningful relationships and interactions online, there are other avenues for human interaction that cannot be replaced by online interactions. For instance, workers sometimes may get together for lunch, a smoke break, or spend time in a pub to refresh themselves in response to the stressful aspects of their paid labour. Workers tend to spend their proverbial

"coin of fun" together in leisure and social activities, during breaks and afterwork, that might help them to combat the alienating effects of selling their labour [37]. As such, working from home, reduces these opportunities for ritualized social interactions [10], and this paucity of in-person social interaction can lead to psychosomatic illnesses including worker burnout [36]. Workers that become burned out from excessive virtual meetings tend not to engage in communication outside of these mandated meetings [16]. Ritualized social interaction from in-person work experiences, I would argue, also encourages forms of collective resistance to unfair work practices, and forms a coping mechanism to ease the stresses and monotony of routinized virtual work. Additionally, collective agency and opportunities to develop solidarity and form meaning in these social actions are more restricted when relegated to occurring virtually through digital communication technologies.

There are psychological and physiological effects from always being available, sedentary, and camera-ready for virtual meetings when working at home. There is a sense in which virtual work invades personal home space, which affects workers' wellbeing (emotional and physical health). There are psychological effects that extended use of video platforms such as Microsoft Teams, Webex, and Zoom. Zoom fatigue is an outgrowth of the work-from-home phenomenon. Excessive exposure to working through digital video platforms presents more intense psychological effects and mental strain than in-person communication [38]. The close-up camera shots of a person's face have also led to increased scrutiny of appearance and loss of self-confidence, and some workers find these mandated camera-on meetings invasive [16]. Additionally, workers are known to move throughout an office to attend meetings and commute to and from home. The increased flexibility and increased productivity gains from the shorter commute and less frequent social interactions come with compromises to wellbeing of workers, demonstrated by the reduced mobility of workers who are more confined to sedentary positions in their home workspace.

Reduced social integration and interaction tends to translate into loss of opportunities for informal and emergent learning from a lack in-person social interaction reinforces individualism. Although digital technology opens-up modern social interaction, it also provides a means to avoid face-to-face communication, and fosters remote communication within a confined locale [23] that restricts opportunities for earnest conversations that produce tensions that create dialectical ingenuity for problem solving. As a corollary to everyday social interaction, workplace communication has increasingly become digital with the use mobile work phones, digital messages, and emails. Work from home is predicated on digital communication. Human communication that includes in-person social interactions has benefits not only in relationship building but also in mediating the social relations of production (subjects) and the social objects of production [23]. There are benefits to ritualistic social interactions beyond building rapport. Learning at the workplace occurs in organic and multi-variant ways and is oftentimes informal. For example, informal conversations take place in everyday interactions in the workplace—around the break room, at the water cooler, or even during a courtesy office visit—where emergent discussions about work processes, and learning transpires through organic conversations on how to solve everyday work problems. Working from home through digital technologies presents barriers to the expanded learning typically generated through dialogical relations in the workplace and beyond. Social interactions can be messy and challenging at times. Consequently, workers highly dependent on digital technologies are more likely to focus on the production process and less likely to focus on the social relations of production, whenever possible. This preoccupation with productivity tends to occur in high stress jobs that focus on quantification of performance outcomes. As a result, the technology accelerates the labour process, compresses labour time, and encourages a "self-propelling system" [36] of work, which prioritizes the individual worker's performance while detracting from the value of a community of learners fostered through in-person communication [39] at the workplace. In this sense, digital technology realizes the dream of the capitalist, in shaping workers' perceptions, and in privileging their productivity above all other social relations that humanize work.

4.6. Identity Conflicts

Since the pandemic, working from home has been used to enhance aesthetic labour and promote a hard-working identity. Some who work from home struggle with a conscious or unconscious striving to prove their ascetism daily. This type of dedication to the hard-working identity is mediated by digital technologies and constitutes the interpellation of workers that results in motivation, commitment, and cooperativeness towards organizational objectives. Workers, therefore, become tethered to their digital work devices, as they seek to validate their productivity at home, outside the in-person gaze of management, and perhaps in an effort to show management that this way of working is optimal. Insofar as workers gain aesthetic pleasure from using digital technology to work productively [40] from the comfort of their homes. This intrinsic aesthetic labour value and the "new" work-from-home hard-working professional identity posits an industrious worker who is self-entrepreneurial and able to work more in a mechanized fashion.

Digital technology can create a type of "automaton" that functions according to the demands of the organization, as machine harnessed [21] or technologically enhanced. In this process, the technology also becomes part of an extension of the worker's home office, and as Gandini argues, digital technology not only facilitates flexible gig work, but also deformalizes and creates non-standard relationships in which workers engage [2]. In this instance, workers become fully immersed and excessively busy in their "hustle" to get work done. Additionally, workers can become obsessed with the benefits of flexible work-from-home arrangements, and some might become enamoured by a lifestyle akin to a freelancer. However, drawbacks of the flexible work arrangements include spillover effects derived from the blurring of work and home boundaries, where work is home and home is work, and poor work–life balance where workers identify predominantly with their work role while neglecting the other facets of their personal life identity, such as that which should be rendered to their family [19]. This identity-shift process is produced through the digitization of the sociology of production, wherein workers construct ideal ways of behaving and positioning themselves as a "hard worker". It also represents a normative form of control deployed through digital technology to transform workers' attitudes, behaviours, and identities to eliminate resistance and enhance worker cooperation and self-enterprise, which privilege managerial-capitalist prerogatives [5] of performance above human wellbeing.

5. Discussion and Conclusions

Even with the advantages to working from home, I would argue that the potential disadvantages far outweigh the advantages of working from home. Workplace interactions encourage social integration and identity formation, even in the way in which people seek out ways to present themselves at work, even in their attire, aesthetics in appearance of workspace and in a hard-working identity. Other disadvantages relate to the problem of social interactions with colleagues. Despite the fact that virtual technology provides opportunities for socialization, it remains inferior to organic in-person communication [16], and some workers endeavour to avoid these virtual interactions [23] because they can be strenuous and intrusive at times. Additionally, a 2021 study of the impact of working from home during COVID-19 determined that working from home with increased distractions resulted in increased workload with longer work hours and reduced communication with coworkers, which was a predictor of decreased well-being [41].

Working from home is often celebrated for the freedom that it seemingly provides workers [27]. Workers typically experience increased work engagement and happiness working from home [17], and workers who are unable to work from home tend to envy those who can. However, working from home is not necessarily a paean of victory for all workers who work from home. The disruption of social relations of production and the blurring of boundaries between work and personal life intensifies work–life and removes personal time for self-care. As Davis and Green report, some workers do not remember to take time to eat, and some workers although more productive are overworked as they

work an average of three hours extra per day [42]. The illusion of freedom is revealed in the digital technology used by management as an apparatus to control workers for productivity gains. Furthermore, as a result of worldly ascetism and the interpellation of hard-working ideology, workers might compromise their work–life balance where their work consistently takes precedent over their personal life. The subjectivity of workers also shapes and reinforces the status quo of work arrangements. However, as sentient beings first and workers second, we are meant to control-manage the technology for our benefit and not become control-managed by the use of technology in privileging the organizations' work over human wellbeing.

Avoiding workplace distractions, enhancing productivity by converting unproductive time into productive time, through the elimination of a commute and the avoidance of time spent in ritualized social interactions typically found at the office, are compromises that benefit individual subjectivity, as it effectuates the ideal "hard working" identity. As is the case in much of human existence, specifically under a capitalist framework, exchange becomes a predominant principle that occurs throughout life. We gain something at the expense of relinquishing something of value we possess. Workers who see working from home as valuable may be unaware of the compromises they have made or might consider the trade-off well worth it. A trade-off might involve exchanging work distractions and interruptions for nonwork distractions and home-life intrusions, having a cancelling effect on productivity [43]. To work from home requires various forms of digital devices and ICTs that fundamentally alter the social relations of production [2]. These alterations, while they may integrate more workers, provide affordances, and in some cases, increase worker autonomy. They also affect how workers learn and interact with each other, specifically in tending to position workers self-interest above collective agency. Autonomy through digital technology in the work-from-home space; while it fosters opportunities for continuous learning, productivity and self-actualization and facilitates the construction and expression of the hard-worker identity [40], it risks constructing a more insular environment at the self-serving expense of the individual worker.

Although workers who work from home have escaped the *rat race* of physical commute, they might not necessarily escape what economists call the *rat race equilibrium*. The rat race equilibrium is a phenomenon where people work longer hours beyond regular hours to match a discourse of the ideal or diligent worker who impresses co-workers in gaining a sort of hard-worker badge of honour, and becomes appealing to management for promotions and contract extensions [44]. This phenomenon is similar to the Marxist concept, interpellation of workers, where workers manage their behaviour to conform with the expectations or obligations of their workspace. The obligation to work longer hours is influenced by digital technology where workers and managers can identify when co-workers are online and actively working. The obligation to work longer hours is also inspired in the workers willingness to try to keep-up or outpace the work of other workers in view of the realization of self-interest and improvement in identity from the perspective of other co-workers, specifically managers.

Temporal boundaries of work and home have been demolished by the new work-from-home phenomenon becoming more formally instituted as a by-product of the COVID-19 pandemic. Arguably, employers have more of an economic gain, and are the greatest beneficiaries of this change to the enforcement of the digitization of work. Since workers have proven that productivity can take place effectively outside the office, employers can potentially access economic savings in reduced responsibility for workplace safety, reduced office space rents/leases, and reduced expenditure on overheads such as internet and office maintenance. If workers are not keen, these expenses can be passed on to individual employees who have transformed, at least, part of the sanctity of their home into a workspace. Work from home arrangements can offer the flexibility of an entrepreneur to workers, the removal of boundaries for participation for peripheral workers, and offer an affordance of increase participation and integration [16]. Conversely, this arrangement can eventually lead to these workers being permanently excluded from becoming core members

of an organization's workforce [35]. The dismantling of temporal boundaries between work and home benefit individual workers in individual ways but for peripheral workers, the axiomatic principle of "out of sight, out of mind" can become a realistic deterrent to collective organizing. Reduced collective agency could possibly result in harmful employer ideologies and attitudes towards workers who work from home, where even a full-time worker is treated, indirectly, as a contracted freelancer. Without collective action, employers may be able to get away with new work arrangements that could exploit worker rights, as workplace laws cannot keep in step with the rapid changes in work arrangements instituted by the enforced pandemic lockdown procedures.

The future of work post-COVID-19, specifically for knowledge workers who can work remotely, could become blended. The pandemic has not only disrupted the work as we know it, but is likely to continue to introduce new paradigms for flexible and remote types of work arrangements [16]. With the aid of digital technology, the plausible expectation for some industries is one of consistent evolution to the labour processes of those who can remain productive as well as gain higher levels of efficiency at home, away from the traditional office. It is apparent that sociology of work scholars will agree that the pandemic has changed the trajectory of work and learning. More apparent is the fact that work from home is a comfortable state for many workers as it can enhance productivity, and it provides an increased perception of freedom and autonomy. However, I would argue that work from home is not a panacea for the contestation within a workplace. Even though working from home tends to be valorized, there can be exploitative productivity control measures within the technological demands of working remotely in always being available and signed on. Furthermore, in-person communication, social and physical wellbeing of workers can be negatively affected by enforced working from home. Depending on the temperament of workers, the more extraverted workers will be more significantly impacted by the constraints of virtual communications and loss of nuance and soulish interaction found in in-person interactivity. Thus, a blended approach to work may be well suited for the post-COVID-19 workplace structure. This work design will include even more freedom for workers to access the benefits of working from home and the office when needed [16].

In concluding, enforced widespread work from home is a new phenomenon due the pandemic; LPT is likewise new to work-from-home research analysis. The implications of insights drawn from LPT analysis bring attention to possible unexpected challenges from long-term work-from-home enforcement. These challenges not only affect workers' mental and physical wellbeing, but also impact worker identity, subjectivity and agency. I anticipate that the work-from-home phenomenon will cease to be a phenomenon and become a more permanent and normative way of work for those workers whose work does not require their physical presence. The pandemic has accelerated the adoption of digital technology, and workers have demonstrated their willingness to adapt to new ways of working, specifically when it adds value to their agency and subjectivity. Empirical research in this area will continue to be imperative to examine and gain deep insights into the intended and unintended consequences of long-term work-from-home arrangements.

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Article

Silenced Coffee Rooms—The Changes in Social Capital within Social Workers' Work Communities during the First Wave of the COVID-19 Pandemic

Sanna Saraniemi *, Timo Harrikari, Vera Fiorentino, Marjo Romakkaniemi and Laura Tiitinen

Department of Social Work, Faculty of Social Sciences, University of Lapland, P.O. Box 122, FI-96101 Rovaniemi, Finland; timo.harrikari@ulapland.fi (T.H.); vera.fiorentino@ulapland.fi (V.F.); marjo.romakkaniemi@ulapland.fi (M.R.); laura.tiitinen@ulapland.fi (L.T.)
* Correspondence: sanna.saraniemi@ulapland.fi

Abstract: The sudden outbreak of the COVID-19 pandemic and the ensuing restrictive measures to combat infections led to a significant change in working life and social work within working communities. Workers had to switch to telecommuting quickly, which also affected the interactions between co-workers. In this research, we examined Finnish social workers' experiences of their work communities during the first wave of the COVID-19 pandemic. We explored (1) how the restrictive measures affected social workers' work communities and (2) what types of factors promoted and challenged the cohesion of social networks and mutual trust between colleagues. The conceptual framework was based on social capital theory, in which social relations are seen as a resource of a community. The data utilised in the study were social workers' diaries (n = 33) written from mid-March until the end of May 2020. The data were analysed by a qualitative content analysis. The results highlight how the multilocation of work, fear of viral infection and varying attitudes towards the viral outbreak affected the interactions between colleagues in the early stages of the pandemic, increasing tensions and feelings of social distance between co-workers. The common professional value and knowledge base of social work, as well as remote work practices developed during the first wave of the COVID-19 pandemic, supported interactions between colleagues. Although remote interaction options were developed, they could not, however, fully replace the advantages of face-to-face interactions and everyday informal encounters between colleagues, the importance of which is essential for developing and maintaining the social capital of work communities.

Keywords: COVID-19 pandemic; social work; work communities; social capital

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1. Introduction

In the early part of 2020, the COVID-19 pandemic spread worldwide. In Finland, exceptional circumstances were declared on 16 March, and the Emergency Powers Act was introduced. This act contained extensive restrictions to combat the spread of the coronavirus which had significant social implications, extending to both work and private life. Education at different levels was quickly transferred to distance education, and the teleworking option was recommended, where possible. Public services reduced their operations, nonurgent services were cancelled and some services were implemented online. This also occurred in social work. The restrictions had significant impact on social work organisations and working methods and social work teams [1].

Social work and social services play a key role in times of crisis; they support the most vulnerable people who suffer most from the negative effects of crises [2–4]. Moreover, social services play a critical role in preparing for, responding to and recovering from crises in society [5,6]. The COVID-19 pandemic and the and the restrictions imposed to fight the virus affected both social workers and social work's service users. Therefore, it is important

to understand how social workers coped with a situation in which they faced significant challenges and were forced to adopt a new kind of adaptive governance [1,7].

The concept of adaptive governance is used to refer to the potential of social workers and social work organisations to respond to the challenges posed by crises and catastrophes. It means embracing 'uncertainty by focusing on collaboration, flexibility and learning' [7]. The allocation and strengthening of resources such as social capital have been seen as being essential to the mobilization of adaptive governance [8,9]. Social capital strengthens trust, resilience, reciprocity and exchange of information between community members [10] and thus helps the community overcome challenges, work together and mobilize common actions also in crisis situations.

There is a growing number of research studies of social work during the COVID-19 pandemic. It has been studied in areas such as social dimensions of pandemic [11], ethics [3], human rights and social justice [12], social work education [13], social worker's resilience and mutual support [14,15], well-being at work [16] and the exploitation of digital tools [17]. There is less research of the meaning of the pandemic to social workers' working communities. By the concept of work community, we stress a workplace as an arena where people meet each other regularly and where they have at least to some extent the same tasks, mission, purpose and work processes that have developed through working together. We see the workplace as an arena that contains and generates social capital, in which social networks and mutual trust are characteristic [18].

In the current article, we examine Finnish social workers' experiences of their work communities during the first wave of the COVID-19 pandemic. We aimed to answer two questions: (1) How did the restrictive measures affect social workers' work communities? (2) What types of factors challenged and promoted the cohesion of social networks and mutual trust between colleagues? The conceptual framework of the study was based on social capital theory [10,19,20]. The data consisted of diaries (n = 33) written by social workers from mid-March to the end of May 2020. The diaries were analysed using a qualitative content analysis. Research questions describe what was searched for in the data by using the content analysis.

2. Theoretical Framework

2.1. Social Workers' Working Communities and Collegial Support

In studies on the well-being and coping of social workers, relations with colleagues, collegial support and trust among colleagues have been identified as crucial work-related resources [21,22]. Social work communities offer practical support for knowledge formation and decision making while supporting employees' professional development and growth. In addition to practical support, social work communities can provide emotional support for their members [15,23,24]. Social workers face burdensome and ethically challenging issues in their work; in these contexts, both collegial support and reflection are essential in managing these issues. Furthermore, collegial support can strengthen the resilience and competence of social workers and help them face the pressure, stress and problematic emotions associated with work while helping address the work-related unpredictability that is typical of social work [25].

Social work teams have been described as secure bases and safe places for their employees [23]. The role of collegial support is essential when supporting new and newly graduated social workers [15,26]. The possibility of face-to-face encounters and low-threshold interactions between employees during the working day, such as coffee table discussions, have been regarded as important for mobilising collegial support [15,27,28]. Thus, it is crucial to explore how the restrictive measures affected supportive interactions between colleagues in the pandemic context where, for example, face-to-face encounters were restricted.

According to previous research, the pandemic has had both negative and positive consequences on the quality of working life and well-being of social workers. On the other hand, the changes brought by the pandemic have reduced work-related stress when, for

example, remote working has brought more flexibility to working days. On the other hand, rapid changes in working practices have increased social workers' workload as well as the challenges in balancing work and family life during the lockdown [1,2,16]. Previous studies highlight the importance of collegial support in helping social workers to support their clients also during crisis that affects their personal lives as well [14–16].

Several studies on the impact of the pandemic on social work teams suggest that teams can serve as a source of support for social workers when working remotely [14,15]. However, superiors and organisations have an important role in enabling social support and promoting interactions between employees, for example, by securing options to interact online [15]. Some studies [15,29] have focused on how novice and inexperienced employees can survive and become a part of the work community without collegial support and daily face-to-face encounters in integrating them into the work community. These concerns are noteworthy because the experiences of isolation and loneliness, increased workload and lack of sufficient interactions have long been noticed in studies reporting employees' experiences about teleworking in the early stages of the pandemic [30].

2.2. The Social Capital of Work Communities

Finnish social workers' experiences of their work communities were analysed by utilising social capital theory. Social capital is usually conceptualized as referring to how social networks enable individual and communal goals which would not be achieved without those networks. Social capital is a communal based resource, 'public good', that is located in the relationship between people [10,31]. Putnam [18] (pp. 664–665) defines social capital as a feature of social life that is similar to trust, norms and networks 'that enables participants to act together more effectively to pursue shared objectives'. Social capital, both as an individual and community resource, is crucial in explaining the capacity of work communities, well-being, coping, professional growth and the development of employees. The studies suggest that an appropriate level of social capital in the work community can prevent burnout [32], increase job satisfaction, add job engagement [33,34] and promote achieving working goals [35]. In particular, the role of mobilising social capital is pivotal when work communities face crises. Here especially, social capital can strengthen and support the resilience and recovering capacity of work communities [8].

Nahapiet and Ghoshal [20] (p. 243) define social capital as 'the sum of the actual and potential resources embedded within, available through and derived from the network possessed by an individual or social unit'. With social capital, resources and knowledge move between colleagues, and the everyday life of the work communities runs smoothly. Nahapiet and Ghoshal [20] suggest that social capital is an enabling resource for work communities, which, in this case, is located in the connections and social relationships between co-workers. Thus, regular social relations, interactions and communication are essential for the development and maintenance of social capital [10,19,20].

Moreover, Nahapiet and Ghoshal [20] suggest that social capital can be analysed through three interrelated dimensions: structural, cognitive and relational dimensions, each of which can open up different facets of social capital. The structural dimension refers to the presence of the links or ties between agents that allow access to the members, for example, to exchange and combine knowledge in a particular social system. The structural dimension of social capital has been studied especially in the area of network analysis. Thus, the main interest in the structural dimension lies in the pattern of linkages between the agents of certain social systems, and the essential question is: who achieves whom and how [20,36,37]? The cognitive dimension, in turn, includes resources in the social system that arise from commonly shared codes, meanings, narratives, representations, symbols and interpretations, such as a shared understanding of the common values, norms and working goals and tasks between colleagues [20].

The third dimension of social capital, the relational one, refers to the quality and nature of ongoing personal relationships between members of a certain social system who have evolved over time in the interaction between team members, such as friendship, trust and

communality [20,35]. The relational dimension can also be referred to as 'strong ties' [37] or bonding social capital [31] that link to the relationships between the members of the group, which are characterised by trust, norms, obligations and identification. These characteristics may have many advantages to the group's performance, and they can motivate group members to act together [20]. As Meng et al. [34] point out, the triangular division of social capital introduced by Nahapiet and Ghoshal highlights the multidimensional nature of social capital, how each of the dimensions contributes in its own way to the performance of a certain social network [35].

Developing and maintaining social capital is influenced by time, interaction, interdependence and group closure. For example, the formation of norms, values and shared codes promoting trust, which is a key element of social capital, requires stability and a continuity of interactions. The concept of mutual interdependence presumes that social capital in a group becomes stronger the more the members of the group depend on each other and the more support they receive. Interaction lies at the heart of social capital, and social capital needs regular interaction to be maintained and to develop. Finally, closure refers to how strong group identity and firmness strengthen social capital [10,19,20].

3. Methodology of the Study: Data, Ethics and Method

The aim of the current research was to analyse the changes in collegial support and social capital of social workers' work communities during a time when work communities confronted many challenges because of the restrictions imposed to combat the COVID-19 pandemic. We answer two questions: (1) How did the restrictive measures affect social workers' work communities? (2) What types of factors challenged and promoted the cohesion of social networks and mutual trust between colleagues? The data consisted of diaries (n = 33) written by social workers from 15 March to 31 May. In mid-March 2020, the research team launched data collection and submitted a diary writing request on a closed social media group for social work professionals. Frontline social workers were asked to write a diary about their experiences and views on the impact of the pandemic on their clients and the challenges arising from their work. The diary was instructed to be written based on three questions: (1) What kinds of observations and experiences do you have about the phenomena and challenges that occur in the lives of social work clients during the pandemic? (2) What challenges do social work and its practices face during a pandemic? (3) What kind of thoughts does the pandemic period evoke in you as a social work professional? The authors of the diaries were instructed to write in a free-form manner but to mark the dates of their writings and send the completed journals to the research group at the end of May. In total, fifty-six social work professionals declared their interest to write their diaries. Finally, thirty-three diaries were returned to the encrypted project e-mail by legalised social workers, with a few social work students among the participants. Most of them wrote a diary on day-to-day basis, some of them week-by-week. The participants worked in different areas of social work, with adults, elderly care, child protection, disabled people, immigrants and addictions. All entries were deemed to be eligible for analysis. In total, 94,139 words were collected.

In terms of research ethics and ethical reviews, the research team followed the guidelines of the Finnish National Board on Research Integrity [38]. Before sending the diaries, the participants were informed by a specific letter that sending the diaries to the research team meant giving one's informed consent. Moreover, the participants were told, for example, about their right to withdraw, secure data storing and processing practices, which ensured that no individual agents or units would be identifiable in the forthcoming publications. The background information collected from the participants was limited to age, gender, education, current job title and the main client target group with which the participant worked. Diaries were written as individual legalised social workers, not as representatives of certain working organisations, so further background information related to institutions was not collected.

For the current study, the diary data were analysed using NVivo data analysis software. In the first phase of the analysis, the data were read carefully, and all descriptions related to the work communities were extracted from the data (173 notes). During the second phase, a qualitative content analysis was used to code and organise the collected notes, hereby referring to work communities. Finally, a theory-driven quality content analysis was used to analyse the three dimensions of social capital—structural, cognitive and relational—introduced by Nahapiet and Ghoshal [20]. When analysing the structural dimension of social capital, reading the data focused on descriptions of the concrete relationship structures in the work communities and the changes that happened in them during the first phases of the pandemic. When analysing the cognitive dimension, the reading of the data concentrated on the descriptions of the shared and conflicting values and codes of the working communities. Finally, when analysing the relational dimension of social capital, the reading of the data focused on the descriptions of the collegial and emotional support. We used the triangular division of social capital as an analytical tool for highlighting the essential features of the social capital of work communities. These dimensions of social capital are inseparably intertwined [20]. In the following, the results of the analysis are presented through three subchapters, each opening up a specific perspective on the function of social capital in work communities from mid-March until the end of May 2020. We first address the impact of the exceptional circumstances on the structural dimension, then the impact on the cognitive dimension and then the impact on the relational dimension of social capital.

4. Results

4.1. Tricky Rhythms and Fading Structures of Workplace Interactions

We first analyse the impact of the restrictions on the communal structures and links through which interaction and collegial support become realised in work communities. When speaking about structure, we refer to the relationship structures of the work community, which consist of the linkages and ties between the colleagues who make collegial interaction and support possible [20,37]. In their diaries, the social workers described how conversations, reflection and information exchange took place between colleagues spontaneously before the pandemic. Colleagues met face to face, for example, in the hallways of the workplace, coffee rooms and lunch tables. However, working remotely changed the structures and systems of inter-employee communication:

> *Among colleagues, we discuss the impact of teleworking on the interaction of the work community among the colleagues. We noted that we miss our colleagues and the exchange of words, enquiries and personal views while passing by each other.*
>
> (D6/31/03/20)

The regular and stable interaction that is essential for developing and maintaining social capital [20] was challenged by the fact that the devices and software needed for remote connections and interactions, such as laptops, microphones or applications, were not necessarily available, especially at the early stages of the pandemic. In addition, not every employee had the necessary expertise to use the equipment needed for remote access:

> *We don't have the tools that would make it possible, for example, to organise a team meeting online.* (D18/21/03/20)

The restrictive measures were manifested in a very concrete manner. They did not concern only an overall recommendation to shift to remote work, but also claims to stay at home, even in the case of minor flu symptoms, and to keep physical distance while meeting other people. Some social workers shifted to work remotely from home; consequently, the work communities were dissolved to different places. The change was significant because remote working had been rare in Finnish social work before the pandemic. To minimise physical contact, co-workers had to begin to work in different shifts and rhythms. For example, some of the employees were in the workplace on certain days of the week, and others worked remotely at the same time. In their diaries, the social workers described the

atmosphere in the workplaces as quiet and 'ghostly', as workers were dispersed to work in different places.

> *On Monday, a staff meeting was held in the workplace. We all were divided into own offices, and only some places had more than one person in the same space. It was quiet—there was guidance to reduce social contacts further in the workplace and to call or send a message even to the next room.* (D24/09/04/20)

> *Today, we prepared the split of our multiprofessional team into two teams to minimise the risk of infection. Half of the group is working remotely for a week, and the other half is at the office, after which the roles will be changed.* (D22/31/03/20)

In addition to formal encounters, such as team meetings, the restrictions had a significant impact on informal encounters between colleagues, such as hallway discussions or meetings at coffee tables or lunch. One key measure of co-workers' 'normal' interaction—'happy talk' in the coffee room—quieted down during the first wave of the pandemic. Shifts for meals were distributed in a new way so that not everyone was eating their lunch in the coffee room at the same time. Opportunities for interaction decreased as restaurants and workplace canteens closed their doors. In many respects, the restrictions changed the everyday structures, spaces and rhythms of the work communities on which interactions and encounters enabling collegial support and social capital were based [15,20]:

> *No one goes near another person to sit down, and the coffee room is not filled with happy conversations during a lunch break. No one goes to the store to pick up lunch, but everyone eats their own snacks. The facial expressions are serious; the atmosphere is quiet. If there is something to do with someone else, people send a message or take a Skype call, even if the other one is in the next room. There is a clear fear of physical contact in the air.* (D9)

> *We have reflected together on how to share lunch shifts so that we would not all be so close to each other around the same table at the same time. This arouses a lot of emotions in people.* (D30)

Moreover, the fear of viral infection related to physical encounters had a major impact on co-workers' interactions and the dynamics of working communities. The avoidance of physical encounters was partly reinforced by a lack of adequate guidance on protection. There were no protective devices available, such as masks and hand disinfectants, especially at the early stages of the pandemic:

> *—Talking to a co-worker feels normal for a while, but I get scared when someone passes by me too close. Meeting clients in a large room felt safe, and all the participants seemed healthy.* (D16/25/03/20)

However, soon after the initial shock phase, the structures and linkages enabling interactions between colleagues began to reorganise. Physical encounters were replaced or accompanied by remote encounters, such as remote team meetings, remote morning coffees or remote Friday pizzas via Skype. The social workers described how remotely held meetings and gatherings became an essential part of the everyday life of the work communities during the exceptional circumstances.

> *We start the day together by sharing cases via Skype. [. . .] In addition to that [. . .], we have started [. . .] an afternoon 'reflection session' involving anyone who is able to join or has something to share with others. It's been a good practice.* (D21/08/04/20)

For maintaining social capital, it was important to find common working rhythms and structures that could enable temporally synchronised encounters. Finding a common rhythm when working remotely was helped by structured and scheduled encounters, such as regular remote morning meetings. Later on, the shared, temporal and spatial structure of work communities, which broke down in the early stages of the pandemic, began to reshape and take new forms.

4.2. Shared Professional Values and Knowledge, Conflicting Perceptions and Orientations towards Viral Outbreak

The restrictions had an impact on the cognitive dimension of social capital—that is, the shared language, codes and values of the working community [20]. In social work, ethical codes and knowledge bases form a strong basis for professional reflection and decision-making processes. Based on an analysis of the data, the values and professional knowledge shared jointly by colleagues were one of the key forces holding colleagues together and confirming the social capital of the work community during the early stages of the pandemic. The values and ethics of social work constituted the common basis, which directed the social work teams' work and acted as 'the compass', helping colleagues navigate in the same direction, maintaining trust, a sense of belonging and, above all, the ability to move forward in the middle of the crisis. Common goals for client orientation, securing clients' well-being and supporting them in times of crisis helped employees guide and reshape their operations in the same direction and keep the members of the work community together [1,19]. In addition, the crisis orientation of social work directed the work communities' activities to ensure that the virus would not spread during client meetings. In this way, the crisis bound workers together, strengthening their sense of belonging:

> *It seems that our working group has been welded together by the crisis and everyone is trying to do their best as part of the group. On the other hand, I feel that the job descriptions of the employees are dispelled when the joint goal is to take a catch from the situations and coping of clients. On the other hand, competence and different job descriptions are emphasised to make the work smooth. Employees are motivated to protect clients so that the virus does not spread and there would not be a public health threat.* (D22/23/03/20)

Competing perceptions and conflicting interpretations and attitudes towards viral outbreaks and the restrictions caused misunderstandings between colleagues and increased tensions in the work communities, thus eroding their social capital. The social workers described how some of their workmates did not appear to take the virus and the claim to restrict social contacts as seriously as others. When some colleagues isolated themselves in their rooms, others continued to take coffee breaks, going about with 'business as usual'. With varying individual orientations and reactions to the viral outbreak and contradictory instructions, there was no longer certainty that colleagues were acting in the same direction and with the same goal and orientation:

> *Sometimes, it feels that the situation is not taken seriously enough in the workplace. Meetings of more than 10 people, for example, have still taken place since the restrictions came into force and safety distances are not always followed. In general, I wonder how this can affect the working atmosphere if some people take the epidemic more seriously than others.* (D15/20/03/20)

Hence, varying worker orientations towards the severity of viral outbreak while performing client work pulled members of work teams in different directions and eroded trust between colleagues. In their diaries, the social workers described how fear of viral infection and different attitudes towards the virus and crisis undermined the feelings of security and trust on which social capital and social support were built in working communities [20].

> *It was clear that I wasn't wanted at the office, and I didn't want to have to wonder if I could infect people myself.* (D5/24/04/20)

The transition to remote working mode caused disagreements and lines of battle between colleagues [3]. Because there were no clear policies and instructions in the workplace at the beginning of the pandemic, the employees felt left alone with their decisions on whether to attend meetings with colleagues or with clients remotely or face to face:

> *[. . .] a downright, shocking day at work. The co-workers were divided into two camps. There were those of us who sought to make solution-oriented proposals on how to minimise the burden on the system. In remote work, we would reduce the exposure to infections when we were not physically involved with each other and there would be no commuting—The other part of the working team included a superior and a few others who felt that our reactions and proposals were completely new, surprising and confusing—in my experience, those of us who talked about it felt labelled as hysterics who were just afraid of their own health.* (D18/21/03/20)

> *I'm going to make the decision to attend a meeting with medical doctors remotely. I face critically minded feedback from the other members of the team: 'why on earth'. There were 15 people attending the meeting. I wonder, where is our view now on the limit of 10 people?*—(D10/week13/20)

Furthermore, the atmosphere between co-workers suffered from the fact that, despite the restrictions, some members of the work community were still forced to continue face-to-face encounters and be physically in the workplace, while others were allowed and able to shift to remote working. The unequal distribution of remote working opportunities caused experiences of injustice between colleagues. This raised concerns about whether the social distance between employees working remotely and those working in the workplace had decreased:

> *[. . .] I feel injustice towards those who are working remotely. For everyone, this is not possible either because of the nature of the work or because of the material resources.* (D6/13/05/20)

4.3. Promoting Collegial Support through New Channels

In the first phases of COVID-19 pandemic, the structure of the social ties between workmates in social work teams collapsed, and contradictions became evident in the middle of the crisis. However, new ways to come together were intensively sought (structural dimension). The shared professional codes (cognitive dimension) maintained trust between colleagues, prevented teams from breaking down and protected single employees from exhaustion. In addition, the relational dimension of social capital, here referring to strong, emotional and reciprocal ties between colleagues, suffered from remote working practices, shortcomings in digital devices and skills and competing attitudes towards the viral outbreak. After the initial shock phase, however, alternative interaction options, such as remote coffee breaks, were introduced to mobilise collegial and emotional support:

> *From the point of view of one's own work and well-being at work, teamwork and support have decreased because one part of the work team is always working remotely. On the other hand, contact has been maintained and support is available; if necessary, the means are only different.* (D1/31/05/20)

> *[. . .] being remotely with colleagues has also been very functional. We just had an office meeting of over 10 people, and teams are also held on Skype. We've also always had morning coffee together via Skype.* (D4/26/03/20)

Although alternative opportunities for interaction were developed, the social workers emphasised the relevance of regular face-to-face interactions as the primary condition for collegial support. In their diaries, among other things, the authors described how opportunities for common ad hoc reasoning decreased despite remote connections when colleagues were no longer meeting face to face in the workplace. Moreover, the threshold for disturbing co-workers heightened because there was no accurate information on the colleagues' schedules and they may no longer work in the same temporal rhythm, such as having coffee and lunch breaks at the same time etc. [15]. The key challenges of work discussed and 'brainstormed' previously among colleagues during working days were increasingly left to single workers to resolve. Considering these questions alone led to an increased workload because the workers did not want to make a phone call and disturb their colleagues.

In a very concrete manner, the social workers described how work issues stayed in their minds after the working day because there were no options to discuss and consider them face to face with colleagues during the day. They expressed their feelings of social distance, isolation and loneliness and how 'something' was now 'missing from the job'. The social workers missed being together, non-work-related small talk and coffee table debates providing spontaneous collegial support that formal online team meetings could not fulfil. As one of the social workers pointed out: '*Without being together, nothing's going to work*' (D 17/29/05/20). The importance of daily informal encounters with colleagues as a source of social capital was described:

> *[. . .] working remotely has brought a lot of loneliness to working, and colleagues seem to me more distant than before. In addition, the differences in working methods and attitudes towards the epidemic have brought a negative atmosphere to the work community. The majority is of the idea of keeping physical contact with others so that we can discharge client cases and consider things together* (D4/06/05/20)

> *I'm getting tired of working remotely. It's hard to get things done when you must strain everything out of yourself. You can't receive any support from others.* (D2/15/04/20)

In a work community where some employees worked remotely and some were at the office, those working remotely started to become 'invisible'. Parallel experiences concerned attending hybrid and remote meetings as well. From this point of view, the hybrid model developed was not, at least in all respects, a viable arrangement for collegial support, even though it allowed participation in meetings through remote connections.

> *I am participating in work counselling remotely, even though most of my co-workers are on site. I feel frustration with low coverage and being an outsider. I would have had something to say, but I cannot manage to take part in conversation.* (D/6/25/05/20)

As Cook et al. [15] (p. 264) highlight, 'the loss of office base' and disappearance of regular face-to-face interactions was challenging not only for recently qualified social workers and new workers but also for less-established teams. These employee clusters lost many learning possibilities that the physical office base could provide, so it became more difficult for them to form relationships with colleagues and identify themselves as a part of the work community. Hereby, the teams with existing strong ties between their members managed better in the crisis, thus demonstrating and confirming the adequacy of social capital theory [15,39]. More broadly, the social workers regarded the daily face-to-face interactions with colleagues as being so important that the physical restrictions made them wonder how their closest colleagues could cope and continue working without daily encounters.

> *At this stage, I first and foremost missed the work community of social workers, where I could participate in professional debates to develop my own reflections. However, I ended up working alone.* (D24/09/04/20)

> *The relations with colleagues are starting to break down because we didn't know each other well, and we are very different. There is no longer a facilitating cooperation us usual, which leads to a widening gap between us.* (D17/20/04/20)

The disappearance of face-to-face encounters led to increasing misunderstandings between colleagues because gestures and facial expressions, crucial to face-to-face interaction, as well as nonverbal communication, were missing from encounters carried out through remote connections. As Cook et al. [15] point out, it is crucial for successful virtual interactions to determine how well established the work community was before switching to remote access mode. Thus, strong social capital that had formed in the work community before the pandemic helped the team survive better through the crisis [40].

> *It is easy to interpret the withdrawal from interaction as a sign of personal assault [. . .] Some fundamental questions seem to arise—such as I am valuable and respected or not, whether I belong to community or not, etc. There are a huge number of misinterpretations in what other people say, and there is no time or the appropriate context to correct them.* (D30/May/20)

5. Discussion

In the present article, we analysed Finnish social workers' experiences of their work communities during the first wave of the COVID-19 pandemic. This was analysed through diary data written by social workers from mid-March until the end of May 2020. The essential roles of social work and social services in time of crisis were the starting point of our analysis. It can be said that in time of crisis social services act as a last tailboard of society: they support the most vulnerable people and moreover have a critical role for the surviving of the whole society [3–5]. In time of crisis and catastrophes, governance systems need the ability to modify their practices, learn and have capacity to respond to the change and uncertainty [7]. To the mobilization of adaptive governance, the allocation and strengthening of resources such as social capital have been seen as being essential [8,9]. In our study we conceptualised social capital as a community resource that is located in the relationship between people and which helps the community to work together and to overcome challenges [10,31]. In the context of the COVID-19 pandemic, the need for a new kind of adaptive governance was also highlighted by the fact that social workers and their work communities faced the crisis by themselves too [1,7].

As the analytical framework, we utilised Nahapiet and Ghoshal's triangular division of social capital, making it possible to bring the essential features of social capital of working communities and their changes during the first wave of the COVID-19 pandemic to light. In many ways, the analysis of the data highlights how the dimensions of structural, cognitive and relational capital were inseparably intertwined and interlinked and in dialectical relationship with each other. How, for example, the trust between colleagues is intertwined with the concrete possibilities for daily interactions between colleagues.

First of all, our analysis suggests that restrictions on physical contacts between colleagues, a lack of adequate digital equipment and fear of and confronting attitudes towards viral outbreaks created social distance and hit the core element of social capital hard: the regular and low-threshold informal interaction and encounters between colleagues. According to the results, self-evident everyday structures and practices, such as shared spaces and synchronised working rhythms allowing ad hoc type encounters, emerged as the crucial factors for maintaining social capital [19].

Moreover, the common professional value and knowledge base, as well as the novel informal remote work practices, supported the maintenance of social capital in working communities. The results highlight the importance of shared language and codes in the formation of social capital among the work community [20]. When there are, for example, varying interpretations of common goals, conflicts tend to arise in a way that erodes social capital.

Finally, the results highlight the importance of regular and stable face-to-face interactions, which are essential for developing and maintaining social capital and which remote interaction could not fully replace. When face-to-face interactions between colleagues began to diminish suddenly because of the restrictions, the expressions of feelings of loneliness, social distance and isolation started to emerge in the diaries [30,32]. Everyday informal interactions between colleagues tend to bind them together and offer options for them to form the network closures necessary for creating social capital [10,19]. In addition, informal encounters seem to help new employees become a part of the work community and become involved in the formation of social capital in the work community [15].

The findings of the study confirm the results of the previous studies on the importance of social capital as an essential element in the adaptive governance of communities during crises and catastrophes [7–9]. The analysis brings into the light the ability and flexibility of

social workers and social work working communities to mobilize and adapt their resources—in this case, their social capital to respond and to survive during the crisis [1]. The results of the study highlight that, after an initial shock phase, social work working communities quickly started to modify their actions and, for example, alternative interaction options were introduced to mobilise social capital to cope with the crisis and to be able to support each other and clients. The role of shared professional codes, the strong ethical base of social work and social workers' strong commitment to support their clients proved to be essential when maintaining and confirming the social capital of working communities when confronting sudden crisis.

Exchanging views and collegial negotiations are an essential part of work team dynamics, but the results also highlight the importance of organising possibilities for informal encounters of employees in the context of working remotely or through a hybrid model, as has also been highlighted in previous studies [14,15]. Especially in times of crisis, it is decisive to ensure that social workers have access to the social support provided by their colleagues because the ties and bonds in the work community prior to a pandemic can help them survive through the crisis and are an essential part of a working community's ability to mobilise common actions [8,10,15].

6. Conclusions

In terms of the dimensions noted by Nahapiet and Ghoshal [20], it seems that all three elements of social capital—structural, cognitive and relational—interrelate, affect and interact with each other. On the one hand, when the physical, spatial and temporal structures enabling colleagues to communicate in everyday settings are called into question, experiences of social distancing, isolation and mistrust between colleagues tend to arise. On the other hand, the shared professional value and knowledge base can help the work community throughout the crisis, guiding the group's activities in the same direction, even in cases where communication structures collapse abruptly. Overall, the analysis of the data shows how social capital is in constant movement and prone to change if any of its elements are subjects of change.

In creating and supporting opportunities for remote or hybrid interactions, organisations seem to play a decisive role, which is reflected also in social workers' diaries [15,23]. First, it is evident that if the digital equipment and applications do not function or there is no know-how on how to utilise them, interacting remotely will not succeed, and the social capital in the work communities will start to crumble. In other words, regular interaction is very difficult to maintain without enabling structures. In addition, social work organisations, their culture and their commitment to encouraging a positive atmosphere for teleworking plays a key role in mobilising online spaces for interaction. In times of crisis, these multiple channels can promote common goals and offer access to social capital and network closures for newly qualified social workers, as well as other new members of the work community.

7. Limitations

There are certain limitations related to the data. First, the authors of the diary data consisted of a group of social workers especially willing to reflect on their experiences through writing. Second, the data were collected at the very beginning of the pandemic, when shifting to teleworking in social work was just starting and, for example, multichannel interaction options were not as developed as later on. However, the early pandemic diary data can remind us how thorough the change was and how the work teams reacted to the change—one that permeated the temporal and spatial structures and well-established patterns of everyday interactions. Above all, our analysis shows how various collegial capacities were adopted, teams adapted quickly to the forced change and social work communities started to self-organise themselves in the middle of the large-scale and unexpected global crisis.

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Experiences of Relatedness during Enforced Remote Work among Employees in Higher Education

Annukka Tapani [1,*], Merja Sinkkonen [2], Kirsi Sjöblom [3], Katrien Vangrieken [4] and Anne Mäkikangas [3]

[1] School of Pedagogical Innovations and Culture, Tampere University of Applied Sciences, Kuntokatu 3, 33520 Tampere, Finland
[2] School of Social Services and Health Care, Tampere University of Applied Sciences, Kuntokatu 3, 33520 Tampere, Finland
[3] Work Research Centre, Faculty of Social Sciences, Tampere University, 33014 Tampere, Finland
[4] Occupational and Organisational Psychology and Professional Learning, KU Leuven, Dekenstraat 2, P.O. Box 3772, 3000 Leuven, Belgium
* Correspondence: annukka.tapani@tuni.fi

Abstract: The aim of this study was to investigate experiences of relatedness among higher education staff during enforced remote work caused by the COVID-19 pandemic. Experiences were investigated both at the earliest stages of enforced remote work (April 2020) and in November/December 2021. Remote work experiences were analysed through the lens of Deci and Ryan's self-determination theory, especially through the concept of relatedness. Within this framework, relatedness is described as one of three basic psychological needs affecting health, well-being, and productivity. The main research focus includes ascertaining which factors affect experiences of relatedness among employees in higher education at work at the beginning of enforced remote work and at the end of it. The study uses qualitative data collected from Finnish university employees, analysed using theory-driven content analysis. The analysis of the two datasets enabled us to identify three categories of relatedness: (1) interaction among co-workers, (2) feelings of care and (3) experiences of connectedness. The results showed that the experience of relatedness was severely challenged during the enforced work period. In the future, the need for relatedness needs to be addressed more deliberately in multi-locational work conditions because remote work is especially affecting the experiences of relatedness. Positive experiences of relatedness can be achieved even in remote work conditions with deliberate and thought-out actions, for example by developing good remote interaction practices within the team and remote leadership practices that convey care for the employees.

Keywords: higher education employees; enforced remote work; self-determination theory; basic psychological needs; relatedness; content analysis

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1. Introduction

As a result of the COVID-19 pandemic, remote work increased rapidly. It has been estimated that in 2020 almost 37% of all workers in the EU worked remotely. In Finland, almost 60% of workers transitioned to working from home in spring 2020, enabled by the structure of the economy, digitalisation, and advances in information and communication technologies. The number of teleworkers later decreased slightly, but nearly half (48%) of Finnish employees were still working remotely at the end of 2020 [1]. In the post-pandemic era, multi-locational work and different flexible work arrangements are predicted to increase. For example, according to the State of Remote Work Report (2022), 97% of respondents reported that they prefer working remotely at least to some extent also after COVID-19. Therefore, there is an urgent need to better understand what factors contribute to sustainable remote and multi-locational work.

The present study contributes to the existing remote work literature in several ways. First, we focus on factors creating relatedness during enforced remote work caused by the

COVID-19 pandemic. Although social demands, such as loneliness, have been studied widely and identified as one of the core challenges of remote work (see e.g., [2]), there are few studies focusing on relatedness specifically from a qualitative perspective, as this study does. Second, in addition to focusing on qualitative experiences, we utilise a unique longitudinal dataset collected at the beginning of the lockdown in spring 2020 and at end of 2021, when employees had worked remotely for over one and a half years. We chose the first timeline at the beginning of the remote work period because it happened surprisingly and seemed on the one hand, like a crisis but on the other hand, as a new possibility to work. There were no practicalities in how to handle this kind of new situation. We chose the second timeline to study how the employees were used to the situation after 1.5 years of prolonged remote work. The home-based working conditions were not optimal, and the way of working was not voluntarily chosen but some new practicalities had been learned. In this study, the experiences of relatedness were analysed through the lens of the self-determination theory [3]. In this study, we concentrated on how the basic psychological need for relatedness was or was not met in the enforced remote work conditions. More specifically, we studied what factors affected experienced relatedness at the beginning of the enforced remote work and later on when working remotely continued due to the prolonged COVID-19.

1.1. Theoretical Background: Basic Psychological Needs in Remote Work

Self-determination theory (henceforth SDT) views basic psychological needs as essential nutrients for healthy and effective human functioning, and the social environment as central to how these needs are met. An environment that facilitates the satisfaction of basic psychological needs enables the individual to experience motivation and well-being. Autonomy refers to a sense of willingness, endorsement, or volition [4]. It most essentially concerns a sense of initiative and ownership: it refers to individuals' sense that they are the origin of their own actions, and that the nature of those actions is volitional and consonant with their own values and interests (e.g., [5–7]). Secondly, competence refers to a sense of confidence and being effective in one's own actions [4]. It concerns the feeling of mastery, a sense that one can succeed and grow [7]. Thirdly, relatedness refers to a sense of belonging, inclusion and feeling connected to others [4]. It is characterised by experiences of having good, close relationships, and of being understood, accepted, and liked as one is. Relatedness is a two-way experience of caring and being cared for: it has to do with being included and well treated, but equally with experiences of being able to contribute positively to other people's lives. Finally, the satisfaction of all three basic psychological needs is equally important and they are not mutually exclusive and do not contradict each other.

The enforced remote work period included elements potentially detrimental to the satisfaction of the basic psychological needs and to the need for relatedness in particular that is in our focus. In light of previous findings on interaction, connectedness, and loneliness during enforced remote work described next, the experience of relatedness has possibly suffered most due to being physically isolated from colleagues. Relatedness is facilitated by the conveyance of interest, respect and caring, and in remote work conditions it is not as straightforward as in face-to-face interaction, but likely requires special attention.

1.2. Empirical Evidence: Relatedness as Remote Work Challenge

As expected, and according to the SDT theory, lack of social resources is emphasised as being among the key challenges in empirical studies focusing on enforced remote work. The shift to remote work has inevitably changed the way people interact with each other and the opportunities for giving and receiving social support. For example, over half (52%) of employees working remotely due to COVID-19 reported feeling less connected to their co-workers [4]. Moreover, 24% of the respondents felt lonely while working remotely (see [8]).

Lack of social resources in remote work also leads to negative consequences. In their systematic review, Charalampous and colleagues [7] discovered that working remotely

from home may be a risk factor for burnout if insufficient social support is provided. Similar results were obtained in a recent systematic review that demonstrated that home-based remote work has advantageous effects on well-being, especially in terms of stress and exhaustion [9]. There is also evidence that social support obtained from work protected against the detrimental effects of job demands during COVID-19 [9,10]. Moreover, Gaskell [11] discussed that remote work weakens ties to the employer, especially if connections with colleagues are also curtailed. However, it may also be that experiences of enforced work differ between employees. That is, an individual with a greater need for social interaction or who lacks a social network outside of work will be more negatively affected by remote work [12].

In this study, we focus on higher education employees who—at least in Finland—worked remotely for almost two years due to COVID-19. Some studies have already focused on this occupational group, but most of these quantitative studies investigate employees' productivity [13,14], well-being, and/or stress [8,15–17] and their antecedents during the pandemic. Uusiautti et al. [18] demonstrated in their study that the COVID-19 pandemic did indeed affect communality among university personnel and students negatively, but at the same time, social interaction was highly appreciated and needed. The higher education employees studied here may on average be more accustomed to working remotely than employees in other fields. It is also plausible that, due to the high level of job autonomy and relatively low level of interdependence between employees, this profession may be better suited to remote work than the work of employees, for example, in high-interdependence teams [19]. Nevertheless, the working conditions among this occupational group also changed drastically due to enforced remote work and they were compelled to engage in long-term remote work, thus creating a special thread to relatedness and social belonging.

1.3. Research Questions

In this study, we were interested in how the basic psychological need for relatedness was or was not met in the enforced remote work conditions. More specifically, we were interested in which factors affected relatedness at the beginning of the enforced remote work and later on when working remotely continued due to the prolonged COVID-19. We recognised from the SDT-theory factors creating the experience of relatedness: quality relationships and interaction, caring, inclusion and contribution to other people's lives. We were interested in how these factors were experienced by higher education staff. Our specific research question was: what factors affected higher education employees' experience of relatedness at the beginning of enforced remote work and at the end of it?

2. Method

2.1. Participants

The data used in this study were collected as a part of the research project "Safely remotely—occupational well-being and its management in telework", funded by the Finnish Work Environment Fund. The overall goal of the longitudinal research project was to examine higher education employees' experiences of enforced remote work during the COVID-19 pandemic. The participants were employees of a Finnish university who mainly worked remotely from March 2020 due to governmental recommendations. The authors obtained permission to carry out the research from the university's rectors and directors of human resources.

The quantitative data for the study were collected in five waves: April 2020 (T1), June 2020 (T2), October 2020 (T3), February 2021 (T4) and November/December 2021 (T5). At Time 1 (T1), the survey was sent to the work email addresses of 6929 employees through the university's general mailing list. The follow-up surveys were sent to employees who had expressed their willingness to participate in the follow-up and had given their email addresses for this purpose at each measurement. In total 2297 (33%) employees (doctoral students and grant holders working under a resource agreement were excluded) responded at T1, 897 at T2 (65% T1–T2 response rate), 683 at T3 (83% T2–T3 response rate), 530 at T4

(86% T3–T4 response rate) and 417 at T5 (84% T4–T5 response rate). The quantitative part of the survey asked participants questions related to the remote work conditions, well-being at work and general well-being, including physical activity, during the period studied. It was voluntary for participants to answer the questionnaire and they were informed about the purpose of the study and ethical issues. It is a must to make a data privacy announcement for participants in the university before it is possible to start research [20]. Only anonymised data were used in this study. All authors had a view of the data so the results have been seen and verified by using the investigator triangulation method (see e.g., [21]).

The qualitative data used in this study were collected through a quantitative questionnaire focusing on the responses of research and teaching staff to the open-ended questions at T1 and T5. In this study, qualitative data were used as we were interested in experiences of relatedness, information which was not obtained from the quantitative data [8,22].

At T1, altogether 1168 employees representing research and teaching staff participated, and 28% (n = 324) of them responded to the request "Please feel free to provide feedback on the survey and share your thoughts about working remotely including ideas for developing and supporting remote working". The length of the text document concerning these answers was altogether 45 pages. At T5 altogether 181 research and teaching staff responded to the survey and 75% (n = 136) of them responded to the open-ended question: "How have you felt about the new or changed work conditions this autumn?". The length of this text document was 18 pages. In this study, we focus on T1 and T5, the first and last databases to study experiences at the beginning of the remote working period and after it had lasted 19 months.

The background factors of the present sample were as follows at Time 1. The majority (54%) were women. Their average age was 45.7 years (SD = 11.14). The sample was well educated: 54% held a licentiate or doctoral degree. Most of the participants (81%) were living with a partner (either married or cohabiting).

2.2. Data Analysis

We analysed the data using theory-driven deductive [23] content analysis. Content analysis is a general term for a number of different strategies used to analyse text [24]. Hsieh and Shannon [25] use "directed" content analysis approach when analysis starts with a theory or relevant research findings as guidance for initial codes. We used theory-driven content analysis because the structure of analysis was operationalised based on previous knowledge. Our primary aim was to describe the phenomenon in a conceptual form. Our process of data analysis included preparation, organizing, and reporting. In the preparation stage, we obtained the sense of whole and selected the unit of analysis which were words, concepts, sentences or part of sentences, and in the organizing stage, we created categories to answer our research question [26,27].

Similar to Hseih and Shannon [25], we identified expressions that related to feelings of relatedness. There were expressions dealing, for example, with interaction or connectivity. The categories of content analysis were driven by relatedness as a part of SDT theory: interaction and relationships with others, caring and being cared for, inclusion, and one's meaningful contribution to other people's lives [3]. Content analysis is useful in gleaning practical knowledge and in this case, we were interested to see whether the experience of remote work was connected with relatedness (see [28]). Content analysis process brings together fragmented experiences [29] and its idea is to form a comprehensive picture of the informants' collective experience [30].

The qualitative checklist is completed according to standards for reporting qualitative research [31] and is attached as an extra file to the article (see Supplementary Material, Table S1).

The main idea of the theory-driven content analysis is to give explicit definitions, examples, and coding rules for each deductive category, determining exactly under what circumstances a text passage can be coded with a category [23].

Coding agenda is modified from Mayring [23]: Category is about what are the main concepts dentified from the theory, Definition in about how the concept is definied according to the theory, Examples show the diversity of the concept in the data, and Coding rules tell how well the definition and the examples point on together.

3. Results

At T1 and T5, we identified three categories relating to experiences of relatedness. As the data, we used the qualitative data from the longitudinal study based on the quantitative questionnaire focusing on the responses of research and teaching staff to the open-ended questions at T1 and T5. The data were collected on a written form on this online questionnaire. Examples that are shown in the following tables are from this questionnaire and answers to open questions mentioned previously. Tables show the category, its definition according to the SDT theory, examples from the data and coding rules used to determine if the example is suitable to demonstrate the mentioned category. T1 presents the examples of the data in the first timeline and T5 presents the latest examples.

The concept in the theory was defined as dealing with interaction and relationships with others, caring and being cared for, inclusion, and one's meaningful contribution to other people's lives. In the result sector, the concept of interaction among co-workers refers to interaction and relationships with others in the university community, feelings of care for caring and being cared for and experiences of connectedness for inclusion and one's meaningful contribution to other people's lives. In Table 1, we present an overview of the findings and examples of interaction as an element of creating relatedness. Table 2 shows the findings on feelings of care and Table 3 presents findings on experiences of connectedness.

Table 1. Interaction affecting the experience of relatedness at remote work.

Category	Definition	Examples	Coding Rules
Interaction among co-workers	Good, close relationships and being accepted and liked as one is.	T1 "It is possible for me to focus on my work much better than if there were some other people working in the same space (and, on the other hand, I don't feel that I am disturbing others)." "Demands for continuing interaction and meetings create a burden on already stressed employees." "Remote work is much more intensive and burdensome because there are no breaks and no stimulating interaction with colleagues." T5 "Social interaction that I missed feels very stressful now. I feel more tired after working face-to-face than after working remote." "Remote meetings have made my work more effective because I do not need to spend time travelling. But the working days are very intensive. When I go to campus, I realize how much time chatting with colleagues takes although it is important in order to take care of issues."	Themes that concern interaction with others, either in positive or negative ways.

Table 2. Feelings of care affecting the experience of relatedness at remote work.

Category	Definition	Examples	Coding Rules
Feelings of care	Meaning caring and being cared for.	T1 "For one month, not a single shared conversation time has been arranged. I feel very lonely." "Management's communication has been discouraging—concerns about coping have not been be talked about." "It is important that working hours are not increased by extra controlling Teams-meetings." "These additional work tasks are not understood but there are some coffee meetings or one-hour-extra-meetings put in here and there on the calendar. They have been said to be voluntary but there have been implications for affecting the jobs of those who do not participate. It is said that these two-hour meetings will be available online if a person has no time to participate. The problem is where to find time to watch them." "The very strict restriction on access to university premises for staff during the crises has been peculiar. I feel that in this case, the trust of the university's top management in their personnel is at the same level as in kindergarten children, and the importance of experimental research is not understood." T5 "Other changes to structure, workspaces and so on have added to the sense of an uncaring employer, no physical sense of belonging anywhere and a lack of respect for employees as professionals." "The managers have shown no appreciation although we have managed the situation well." "I feel that the university management does not care about recovering from an exceptional situation and moving to new circumstances from the perspective of the well-being of the staff or students." "This autumn, all the regulations are over, and the personnel has been in charge of all decisions by itself." "I have got no support or options for how to arrange my work or working conditions. Although the supervisors have been aware of my difficult working situation, I have got no support. This makes me feel that I am not a part of any work community, and my work is of zero value. I am very disappointed with how the university has managed the COVID-19 time."	Themes that concern the feelings that the staff is taken care of and their well-being is in the management's interest.

Table 3. Experiences of connectedness affecting the experience of relatedness at remote work.

Category	Definition	Examples	Coding Rules
Experiences of connectedness	Feelings of being included, well-treated and equally contributing positively to other people's lives.	T1 "There is a good feeling while we are having virtual coffee breaks together." "Many things have worked surprisingly well and own workgroup can help in many cases." "Several supervisors in Teams/Zoom meetings have been much more approachable and relaxed than in normal meeting situations." T5 "It has been a chance for me to laugh—it tells how much I have missed these live meetings and contact teaching. Teams and Zoom are useful and effective but used all the time they reduce the joy, meaningfulness and all effectivity in my work." "I miss my work community but not as much as I did in the beginning of this COVID-19 time." "For me there is a challenging feeling of being an entrepreneur. This makes me think if I am in the right workplace. I have never liked the idea of being an entrepreneur working alone; I am more a team-player."	Expressions of inclusion and being a well-treated, valuable member of the university community

At T1 (April 2020), interaction among co-workers seemed to concentrate on interaction on a practical level and "getting things done". There were concerns about colleagues and how they were coping with the situation because there were no opportunities for informal discussions. Participants also voiced ideas about the remote work routines and how remote work could provide opportunities to concentrate on work with fewer disruptions—working alone with no interaction among colleagues was effective. Effective remote working habits provided opportunities to concentrate on basic tasks, not on "small talk".

At T5 (November/December 2021), interaction among co-workers included concerns about colleagues and students. The interaction had become increasingly diverse, and respondents felt there was no opportunity to find a solution that fits all. In this category, we identified some comments about students and interaction with them. Responses referred to how to build online interaction with students or how some students wanted face-to-face teaching while some preferred online. Strict routines were created for working remotely and returning to face-to-face meetings and teaching was not greatly missed. The data also includes comments about how HE policy affected interaction and its prospects: the employer had utilised the situation to make the working conditions worse, for example by changing the working conditions towards non-personalised workplaces and not discussing the changes with the staff. These things had been completed during the remote working period and not discussed with the employees.

A new form of interaction included how family members were connected to working life. Returning to face-to-face teaching and meetings affected family members' health. There has previously been discussion about how to reconcile working life and family life, but the remote working period changed the situation. Children tried to do schoolwork at home while the researcher parents tried to write their articles; new kinds of workmates entered the traditional picture. This example shows new ways to think about academic remote work:

> *"My family has been very understanding and given me space to work. I feel it is unfair to them when I work 12 h a day and they must be quiet and keep out of the way."*

Feelings of care (T1) (Table 3) were related to loneliness and lack of empathy. The main obstacle in working alone was created by the organisation not taking care of the staff, and

not asking how they were coping with the situation, and this caused people to miss the feeling of care and being connected to the community. If no care and connections to others were available, there were feelings of isolation and working alone. If no one, in this case especially management and supervisors, showed interest in one's work, it felt as if no one really cared about how the personnel were coping with the situation.

At T5, feelings of care concerned missing support and changes made in the employees' working conditions without consulting them. Simultaneously with the transition to remote work, the university management made some structural changes concerning personal working places: Not everyone would have a personal working space. Additionally, personnel numbers were cut. Wishes were expressed for supervisors to care more—to keep more in touch or show some appreciation. The employer was felt to be almost merciless because of the structural changes and not being in touch with how employees were coping.

There were some remote leadership practices that were related to impaired working conditions, such as shutting down the campus or having too many or compulsory meetings. Caring seemed to turn into controlling. Meetings were experienced to interrupt the basic work and people felt that they were not trusted. Some informants were already familiar with remote work and online teaching, and they felt that they were not trusted because of too much micromanagement. The total shutdown of the campus spaces felt unfair and seemed to be an attack on one's meaning as part of the community. It was not possible to carry out one's work properly under these circumstances. It was not possible to work remotely with those with whom one would have needed to cooperate and carry out one's tasks properly. Shutting down the campus felt like a failure to comprehend individuals' work, its needs, or employee competencies.

AT T5, participants reported crucial feelings that now, when there was a need for leadership, personnel were left alone to decide on practicalities. There was a need for leadership and to discuss the solutions with the personnel. The structural changes were felt to cause stress. The leadership was described as dangerous. Concerns had more to do with the structural arrangements than remote or hybrid ways of working.

Experiences of connectedness (T1) (see Table 3) were about feelings of there still being a shared connection, no matter where the work takes place. Connectedness was created during virtual coffee breaks and participants reported feeling that there still is a community available although it has been transferred to an online environment. It was possible to get help and feel that there are others available, present, and willing to help. Respondents felt it was important that these connections continue.

At T5, experiences of connectedness related to the opportunities to meet face-to-face—it was experienced as a good thing that there was a choice between remote or face-to-face meetings. Some reported missing the community spirit but not so much as at the beginning of the remote work period. Face-to-face connections brought joy and laughter that had been lacking while working remotely. Remote work practicalities also added to feelings of working alone and not being a team member.

4. Discussion

This study focused on the experiences of relatedness at work during the exceptional circumstances caused by the COVID-19 pandemic. Our research question was, how did higher education employees experience relatedness at work at the beginning of enforced remote work and at the end of it? In the following, we will discuss the main findings, and their implications and discuss the different experiences of remote work in the beginning and after 1.5 years of the remote work period.

4.1. Main Findings

The analysis revealed three categories relating to relatedness, namely (1) interaction among co-workers, (2) feelings of care and (3) experiences of connectedness.

To sum up, at T1 in the category of interaction among co-workers, there were concerns about colleagues and how they were coping with the situation because there were no

opportunities for informal discussions. There were ideas about remote work routines and how they provide opportunities to concentrate better on work. Interaction with supervisors was especially missed. The main result in this category was that continuing interaction was on the one hand experienced stressful but on the other hand, it was also missed because it afforded a chance to relax during working hours. At T5, interaction among co-workers included concerns about colleagues and students. The interaction became increasingly diverse, and respondents felt there was no way to find a solution for all concerned. Strict routines were created for working remotely and returning to face-to-face meetings felt uncomfortable; face-to-face meetings were not greatly missed. There were also comments on how HE policy affected interaction and its prospects: the employer took advantage of the situation to make negative changes in working conditions.

In this category of interaction (T5), a new aspect entered the personal working area: family members were involved while working from home. Returning to face-to-face teaching and meetings also had the potential to affect family members' health.

Feelings of care (T1) were connected with loneliness and lack of empathy. There were feelings that no one cared or was interested in one's work or how one was coping with the situation. If no care and connections to others were available, there were feelings of loneliness and in isolation. Interest or care on the part of management and supervisors was especially missed. Feelings of care (T1) were also related to deteriorating working conditions such as shutting down the campus or to feelings of there being too many or compulsory meetings. Too many online meetings were experienced as disruptive for the basic work and suggested a lack of trust. This was seen as a sign of micromanagement, not showing care but more like control. Shutting down campus felt like a failure to understand individual work, its needs or employee competencies.

At T5, feelings of care were about missing support and changes made in working conditions without consulting employees. Structural changes concerning personal working places and the number of employees were seen as signs of lack of care. It was hoped that supervisors might care more, keep in touch more or show some appreciation. At T5, feelings of care were even more connected with leadership: there were feelings that now, when there was a need for leadership, the personnel were left alone to decide on practicalities. There was a need for leadership and to discuss the solutions with the personnel. The leadership was described as having features of destructive leadership. Concerns included structural arrangements more than remote or hybrid ways of working.

In the category of experiences of connectedness (T1), there were feelings of still having a connection regardless of where people were working. Connectedness was created during virtual coffee breaks and there were feelings that there was still a community available, albeit online. It was possible to get help and feel that there were others available, present, and willing to help. At T5, experiences of connectedness related to the opportunity to meet face-to-face. Some reported missing the community spirit but not as much as at the beginning of the remote work period. Face-to-face connections brought joy while remote work accentuated feelings of not being a team member.

Earlier research shows that remote work affects employees depending on their characteristics [32]. Our study supports this: there are individuals who enjoy remote work routines and can still feel connected via online tools. For others, face-to-face encounters are an important way to bring joy in work and happiness to work. Earlier research has also reported deterioration in interaction [8,33]. In the later data (T5), the main points concerned the deteriorated opportunities for interaction under these conditions: no personal working places in addition to personnel cuts.

There has been discussion on home-based remote work reducing stress and exhaustion but also conflicting results [32]. Our findings do corroborate the idea of conflicting experiences. On the one hand, the face-to-face community was missed and there were feelings of loneliness while working remotely, yet there were feelings of focusing more effectively on one's work while working alone. This introduced the idea of disturbing co-workers: while working on campus, there are opportunities to converse with others and

this took time. After working remotely, this kind of chatting felt time-consuming. Only the functional relationships were deemed valuable. This is an interesting new finding on enforced remote work conditions and the social side of work—it appeared that the approach towards relationships and relatedness at the workplace shifted more towards a functional approach to relationships and connections. It also appeared that while the employees had hoped for more relatedness in remote work, they also started to give up on it, perhaps because it did not seem that this need would be met. This is significant and requires attention at workplaces in future since there is no reason to believe that the basic human need for relatedness changed during the pandemic.

Social interaction was also felt to be time-consuming. After a day of working from home, there were feelings of not being so tired as after a working day on campus. This connects to topics such as commitment to work [11] and how committed employees really are to work or to work for the community. The negative side of committing to work and not to co-workers is that there is no time to nurture the feeling of belonging, a feeling of relatedness, if these are not deemed important. A profound need for interaction and relatedness is discernible, but this needs to be built up in new ways, as the traditional ones do not apply in remote conditions.

Employees need social support to flourish in their work [19]. To be seen and noticed as an individual employee implies dignity and this leads to doing one's best at work. In this study, feelings of care were the weakest link in remote work: even at the beginning (T1), there were many hopes for contacting the staff, just to ask how they were coping with the situation. At T5, the employer was criticised heavily for not caring about how the staff was coping but also for being almost merciless in introducing the structural changes during the remote period and not discussing them with the employees. According to the self-determination theory [3], relatedness is a two-way experience: it is about caring and being cared for. The practicalities experienced during the remote period did not strengthen this idea. The data shows that the experience of relatedness has been severely challenged during the enforced work period and in future, it needs to be addressed more deliberately in remote work conditions.

4.2. Implications

Enforced remote work during the pandemic has profoundly affected university work, as restrictions and enforced remote work has continued for almost two years, and there have been consequences, for example, in job-related well-being [19]. In this study, we focused on basic psychological needs [3] and especially on relatedness on the assumption that the fulfilment of psychological needs is a prerequisite for well-being.

Previous research has found that the COVID-19 pandemic has changed working relationships and the need for autonomy has been accentuated in remote work: the new normal will require organisations to be creative and deliberate in their approaches to supporting employees to work autonomously.

Our results accentuate that, regardless of how autonomous employees are, they still need support from supervisors and leaders. This is aligned with what has been known based on self-determination theory: the needs for autonomy and relatedness are not contradictory but complementary, and both are essential for motivation, productivity, and well-being [3]. In remote work conditions, maintaining a sufficient level of relatedness and support may require allocating more time to maintaining relationships at work, both among employees and leaders, as opposed to the experience that there is no time for connecting beyond work tasks in remote work.

During the enforced remote work period, the staff were compelled to invent new ways of working in a sudden and exceptional situation. As a continuation, now new ways of leading are needed as remote work is likely to continue as a central way of working also in post-pandemic times [34]. Previous research [35] has proposed new practices that engage technologies to maintain social connections during remote work. It is not only the conditions and technology that count, but also how we use it [36]. There need to be clear

and shared rules and practices of how online interaction is arranged and how the related technology is used. These need to be developed as a result of a deliberate, collaborative and thought-out process [37]. Remote work includes an evident risk for the compromised experience of relatedness, but it does not need to be so—relatedness can be supported in many fruitful ways in these conditions too.

Our data suggested that as a result of exceptional circumstances and compromised working conditions and a sense of connectedness, some of the employees were at risk of not seeing meaning or value in their work anymore and it was becoming less self-endorsed. Some described experiencing oneself to be in a role of a private entrepreneur simply carrying out one's daily tasks alone. In remote conditions, it is highly important for the employees to experience that one's work is a part of a greater whole and that one does it in connection with the work community, no matter where it is done, face-to-face or remote. Employees need to feel that they are cared for and listened to in issues central to their work. In our data, other significant organisational reforms took place as well as during enforced remote work, and many participants reported experiences of lack of care on behalf of university management. In this kind of situation, it is very important to include employees in the process in order to support their basic psychological needs. This not only provides motivation and well-being but also makes work more fluent as typically the employees are the best experts regarding the specific aspects of their work.

This study showed that there is a need to learn new ways of interacting while working remotely. Good quality interaction can lead to experiences of being cared for and, according to our study, this can increase relatedness. This adds to the feeling of being an important part of the work community. We recommend caring leadership [38] as a new way to lead HE organisations. One practical example of it is just regularly asking, how the employees are coping with their tasks and duties. In addition, simply asking, and showing some dialogical will is important: listening, being present, and being willing to discuss, without rushing away at once. Naturally, all employees are individuals with different life situations, and this leads to the idea that there is not a single solution that fits all. This question of individual needs could be better resolved by involving the personnel. In addition, we need new ways of understanding interaction when the work is carried out in a way that includes both face-to-face and online interaction. There is a need to rethink the elements that form relatedness. It is not the same as in the "old days"—new ways to support relatedness are needed. According to this study, practical ways of interaction, showing reciprocal care, and leadership practices all play an essential role.

5. Limitations

One central limitation of this study is that data are from the Finnish university context and its specific characteristics, and therefore it may not apply equally to different kinds of work environments. For example, the contextual factors of leadership are very different in the university compared to other contexts: for many supervisors, supervisory duties come as a secondary responsibility while the main focus may be on other things. A limitation that can also be mentioned is that all authors work in a university context and have had the same kind of remote work period in their working career, so it is easier to understand the problems relating to relatedness.

The data consist of responses to one open question in written format, so there was no opportunity to ask additional questions, which would have been possible in an interview. However, the question was formulated in a very open form so as to encourage participants to bring up topics that they found relevant and to have a fair level of freedom in their expression.

Furthermore, it is important to acknowledge that the separation between work that happens face to face or remotely is a very rough one when it comes to practices that are applied in both conditions. Remote work can be arranged in many ways, some of which can be very good regarding relatedness as well, depending on the specific practices of each work community. There is most likely lots of variation between each team on how well the

shared practices succeed or not in supporting relatedness, either when working remotely or face to face, and this does not depend merely on the condition itself.

6. Conclusions

While studying one Finnish HE community and its personnel's experiences of relatedness in remote work, we identified three central categories, namely (1) interaction among co-workers, (2) feelings of care and (3) experiences of connectedness. Based on the analysis, the experience of relatedness has been severely challenged during the enforced work period. Even though it does not apply to every work community, in many, this has been the case during enforced remote work. In future, the need for relatedness needs to be addressed more deliberately in remote work conditions. There is a need to rethink the elements that form relatedness in working conditions that combine face-to-face work and remote work. It is important for the employees to experience that they are working as a part of a well-functioning and caring community, whether the work takes place face-to-face or remotely. The positive experience of relatedness can be achieved even in remote work conditions with deliberate and thought-out actions, for example by developing good remote interaction practices within the team and remote leadership practices that convey care for the employees. In the time following the enforced remote work, it will be focal to find new ways to build and maintain relatedness.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/challe13020055/s1, Table S1. Checklist for qualitative study.

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COVID-19-Related Job Demands and Resources, Organizational Support, and Employee Well-Being: A Study of Two Nordic Countries

Johanna Lilja [1,*], Silje Fladmark [2], Sanna Nuutinen [1], Laura Bordi [1], Riitta-Liisa Larjovuori [1], Siw Tone Innstrand [2], Marit Christensen [2] and Kirsi Heikkilä-Tammi [1]

[1] Faculty of Management and Business, Tampere University, 33014 Tampere, Finland; sanna.nuutinen@tuni.fi (S.N.); laura.bordi@tuni.fi (L.B.); riitta-liisa.larjovuori@tuni.fi (R.-L.L.); kirsi.heikkila-tammi@tuni.fi (K.H.-T.)

[2] Department of Psychology, Norwegian University of Science and Technology, 7491 Trondheim, Norway; silje.fladmark@ntnu.no (S.F.); siw.tone.innstrand@ntnu.no (S.T.I.); marit.christensen@ntnu.no (M.C.)

* Correspondence: johanna.lilja@tuni.fi

Abstract: The purpose of this study is to examine how COVID-19-related job demands and resources have been associated with employee well-being in Nordic countries across specific occupational groups. The study investigated four occupational groups: (1) professional, scientific, and technical occupations in Norway (n = 301); (2) teachers in Finland (n = 315); (3) health and social service occupations in Norway (n = 267); and (4) geriatric nurses in Finland (n = 105). Hypotheses were tested using two-step hierarchical regression analysis. Work–home imbalance in Groups 1, 2, and 3, workload increase in Groups 1 and 3, and fear of infection in Groups 2 and 3 were positively related with exhaustion. A positive attitude towards digital solutions was positively related to work engagement in Groups 2 and 3. In addition, there was a significant positive relationship between COVID-19-related organizational support and work engagement in Groups 2, 3, and 4, and a negative relationship with exhaustion in Group 2. In conclusion, pandemic-related job demands and resources were differently associated with employee well-being across different occupational groups and countries. Further, organizational support may act as a supportive element for sustaining employee well-being during pandemics.

Keywords: COVID-19; Nordic countries; job demands; job resources; organizational support; employee well-being; work engagement; exhaustion; stress

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1. Introduction

1.1. Background and Purpose of the Study

The outbreak of COVID-19 in Wuhan, China, in January 2020 quickly developed into a global pandemic that has had a profound impact on working life. It has been suggested that the pandemic will permanently reshape perceptions of work and occupations, and result in both micro and macro shifts in working life [1]. Recent empirical research suggests that the pandemic has affected employee well-being in many and partly differing ways across occupational sectors [2]. Specifically, for healthcare employees, work during COVID-19 encompasses new and increased health and safety risks, such as becoming infected [3], while, for example, social services are battling with an increased workload and transition to virtual care [4]. Hence, healthcare and social services can be considered to be among the sectors most directly affected by the pandemic.

Previous pandemic research suggested that the COVID-19 situation has caused stress, strain, and other psychological symptoms among healthcare and social services employees [4–6], although prior to the pandemic, they have already been reported to have experienced significantly high levels of occupational stress [7–9] and symptoms of

burnout [10,11] due to work-related factors (e.g., time pressure, emotional workload). On the other hand, location-independent work, such as administrative and knowledge, has been transformed into remote work to a large extent. This has had an impact on, for example, digital working incidence, work intensity and rhythm, work–family balance, social relationships, and the availability of organization-provided support [12]. Additionally, formerly location-dependent and communication-intensive work, such as teaching, has undergone major and rapid transformation into various forms of digitalized and online education [13,14]. Prior research suggests that teaching as a profession has been heavily affected by the pandemic. In practice, the pandemic has affected countries differently, and various school policies have been applied. In both Finland and Norway, a rapid transition to school closures and online teaching took place shortly after the pandemic emerged in spring 2020. During its later phases, different combinations of classroom study and remote learning have been adopted. However, research highlights that teachers have, in many respects, been able to live up to the new demands and demonstrated resilience and the ability to cope with rapid transition [15].

This research investigates whether COVID-19-related job demands (namely work–home conflict, increased workload, and fear of infection), digital job resources (positive attitude towards digital solutions and well-functioning digital meetings), and COVID-19-related organizational support as a job resource are related to employee well-being among specific occupation groups in Norway and Finland. This study explores four occupational groups assumed to be differently affected by the pandemic: (1) professional, scientific, and technical occupations in Norway (including e.g., administrative, education, and knowledge work); (2) schoolteachers in Finland and two groups of healthcare personnel; (3) health and social services occupations in Norway; and (4) geriatric nurses in Finland. While the Norwegian and Finnish occupational groups are not completely comparable, due to the Norwegian groups being more heterogeneous and the Finnish groups more specific, the groups still share some common features. Moreover, although there may be within-occupation differences in how the pandemic has affected their ways of working (i.e., the possibility of working from home), they may be divided into two broader work categories: two groups of knowledge workers with the possibility to work from home, and healthcare personnel who mainly was asked to maintain their usual on-site practice. In this context, this study provides new knowledge to associate COVID-19-related changes with employee well-being, which has been highlighted as a research gap in previous studies [16].

Different countries are at various stages of pandemic, and thus their response to and communication of the danger of COVID-19 can vary. The situations of Asia, the UK, the US, and the Middle East, for instance, have been addressed in prior research [17–22]. However, there are still a variety of countries for which the COVID-19 impact has been less investigated. Thus, Khajuria et al. [16] suggested that both country-specific and comparable data from different countries are necessary. Building on these notions, this study provides information on the pandemic's impact in terms of well-being and workplace measures, particularly in two Nordic countries. The pandemic situation in Norway and Finland has been less severe during the time of the study, and applied restrictions may be described as less stringent than in several other developed countries (e.g., [23,24]). The demographic and economic profiles, healthcare systems, public health infrastructures, and working life structures—such as active labor-market policy, strong workplace democracy, and employer–employee co-operation—set the Nordic countries apart from the most studied countries to a certain extent [25].

Recent research [25] has discussed the benefits of the Nordic welfare model in terms of handling the COVID-19 crisis and its subsequent impacts. Therefore, examining COVID-19 implications for employee well-being in different occupations in Norway and Finland provides additional knowledge of the situation from a Nordic perspective. This study provides knowledge across both countries and different occupational groups that are assumed to be affected differently by the pandemic. It also contributes to the application of the job demands–resources (JD–R) model [26] by utilizing it in an examination

of COVID-19-related job demands and resources, and their association with employee well-being. As this study provides new information on both the impact of COVID-19-related changes on employee well-being and the role of organizational support during the pandemic, the results are valuable for furnishing workplaces with effective measures to combat possible future pandemics and supporting the adjustment to new situations after COVID-19.

1.2. The Link between Changes in Work Due to COVID-19 and Employee Well-Being—The Perspective of Job Demands and Resources

The JD–R model [26]—which states that employee well-being is a result of the balance between work demands and work resources—is applied as a theoretical framework in this study. The JD–R model has previously been utilized in a study related to COVID-19 consequences by for instance Giusino et al. [27]. The JD–R model consists of two separate but related psychological processes that explain job strain (i.e., burnout and stress) and motivation (i.e., work engagement). However, job demands and resources are not necessarily the same in all types of work; while there are certainly some common denominators, demands and resources may also vary between occupations and fields [28].

The JD–R model proposes that job demands, such as high workload, time pressure, and emotional demands, contribute to the processes of losing energy and impairing health, which in turn lead to stress and burnout [29]. Ganster and Rosen [30] defined stress as the 'process by which workplace psychological experiences and demands (stressors) produce both short-term (strains) and long-term changes in mental and physical health' (p. 1088). Stress is considered to occur when demands exceed a person's adjustive resources [31], while burnout is caused by long-term work stress, and is defined as a syndrome comprised of emotional exhaustion, depersonalization, and feelings of reduced personal accomplishment [32]. Moreover, emotional exhaustion is associated with mental fatigue and depersonalization (also conceptualized as cynicism), which refers to psychologically distancing oneself from one's job or clients. Finally, reduced personal accomplishment refers to the feeling of losing one's professional efficacy [32]. While it was stated that each dimension connects differently with the characteristics of the working environment as well as with unique health-related, behavioral, and motivational outcomes, existing research has widely suggested that emotional exhaustion is the key element of burnout that also covers the aspect of stress (e.g., [33]).

In contrast to job demands, job resources that motivate and help employees reach their goals are involved in a motivational process that is associated with the creation of positive consequences, such as work engagement [29,34]. Here, work engagement refers to a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption [35]. Put simply, engaged employees have high levels of energy and are committed to and enthusiastic about their work [36]. Moreover, there is also growing evidence that job resources may be effective in decreasing stress and burnout, whereas job demands may reduce work engagement [37]. It has also been proposed that job resources are of particular importance in maintaining employee well-being when job demands are high [34]. Hence, it may be suggested that, in demanding conditions [38], such as those during the COVID-19 pandemic, job resources are the most salient factors in tackling pandemic-related effects. For example, in a previous COVID-19-related study by Giusino et al. [27], job resources, such as team and managerial support, were found to have sustained employee well-being.

1.3. COVID-19-Related Job Demands

There are arguably a variety of COVID-19-induced occupation-specific, as well as general, job demands that are associated with well-being at work. Based on prior research covered above and below, the following COVID-19-related job demands were chosen for this study: work–home conflict, increased workload, and fear of infection. These were assumed as relevant in all four investigated occupational groups.

1.3.1. Work–Home Conflict

COVID-19 has caused the rapid increase of remote work in many fields. In this context, difficulties in combining domestic life and work responsibilities have been highlighted as a psychosocial risk of extensive remote work [12,39]. Work–home conflict (also referred to as work–family conflict) may appear in two ways: work interfering with home life and/or home life interfering with work (see, e.g., [40]). Prior research found work–home conflict to affect well-being at work, and to be associated with negative well-being outcomes such as burnout [40,41] and weaker job satisfaction [42,43].

Work–home conflict was also identified as a job demand in prior empirical studies on work during COVID-19. The rapid transition from office to remote work, which has occurred in a variety of occupations, including that of knowledge workers, was associated with work–home conflict [44,45]. In addition to sole remote work, hybrid and on-site workers also seem to have experienced work–family conflict during the pandemic. Prior research indicated that work–family conflict has been a significant burdening factor in healthcare and social services fields [46,47], as well as education [48]. In this study, we approach work–home conflict as a perceived difficulty in distinguishing between work and home life during COVID-19. According to prior research, work–home conflict can be burdening, affecting employees ranging from those in occupations with remote work to those who are completely on-site. Therefore, we hypothesize the following for all the examined occupational groups:

Hypothesis 1 (H1a). *COVID-19-related work–home conflict is negatively related to work engagement.*

Hypothesis 1 (H1b). *COVID-19-related work–home conflict is positively related to stress/exhaustion.*

1.3.2. Increased Workload

Adaptation to the COVID-19 situation appears to have increased the workload in many fields, which can have serious consequences on well-being at work. Workload is one of the key work stressors that has been studied and discussed for several decades (see e.g., [49]). In their meta-analysis, Bowling et al. [49] described workload as a multifaceted construct that encompasses both quantitative and qualitative as well as physical and mental aspects of job-related burdens. Further, prior research found high workload to have detrimental effects on wellbeing at work, associating it with, for example, emotional exhaustion and strain [49,50].

Previous research on COVID-19-related changes at work indicated an increase in workload and related effects on well-being at work. For example, the rise in patient volumes and rapid introduction of new protective procedures have been found to increase both the workload and strain of healthcare workers [51]. A meta-analysis of 97,333 healthcare employees across 21 countries [52] indicated a high prevalence of moderate depression, anxiety, and post-traumatic stress disorder during the pandemic. The adverse consequences were associated with an increased workload and new or changing work demands. Extreme workload during the pandemic has also been identified as a significant source of stress and strain in geriatric care settings [3,51]. Additionally, in social services occupations, employees have experienced increased workload due to changing work practices (e.g., switching in part to digital forms of client work) [4]. Meanwhile, in the education field, prior studies found that teachers have suffered stress from rapid adaptation to online teaching and its associated increase in workload [53,54]. In fact, an increased workload appears to be one of the most common COVID-19-induced job demands across occupations and fields. Therefore, we approach the concept of workload as a perceived increase in workload during COVID-19 regardless of occupation. Hence, we predict the following for all occupational groups:

Hypothesis 2 (H2a). *COVID-19-related increased workload is negatively related to work engagement.*

Hypothesis 2 (H2b). *COVID-19-related increased workload is positively related to stress/exhaustion.*

1.3.3. Fear of Infection

Recent studies have suggested that fear of infection during pandemic has a significant adverse effect on well-being at work [55]. Prior research on COVID-19-related stressors indicates that it has been a straining job demand, particularly in fields with close human contact. For example, fear of contagion and/or infecting others has been identified as a source of stress and strain in geriatric care settings [3,51] and social services [4]. When investigating frontline personnel of different health and social service occupations, scholars found that the fear of transmitting infection to be the highest among eldercare personnel [56]. However, according to recent literature, fear of infection is not limited to frontline personnel in specific occupational sectors. Despite sporadic periods in remote teaching, teachers also seem to have experienced fear of COVID-19 infection similar to employees in care professions [57]. Based on these notions, fear of infection during COVID-19 can be positively related to exhaustion and stress despite occupational differences. Therefore, we hypothesize the following for all the investigated occupational groups:

Hypothesis 3 (H3a). *COVID-19-related fear of infection at work is negatively related to work engagement.*

Hypothesis 3 (H3b). *COVID-19-related fear of infection at work is positively related to stress/exhaustion.*

1.4. COVID-19-Related Job Resources

1.4.1. COVID-19-Related Organizational Support

Organizational support may act as a valuable resource, especially in times of crisis, since the pandemic has induced rapid changes, concerns, and uncertainty in the workplace that organizations need to seek to alleviate. Thus, this form of support can be seen as a key resource during COVID-19, as it encompasses employer's actions in terms of organizing and securing working conditions during the pandemic. Moreover, perceived organizational support refers to the general experiences of employees regarding how their employer cares about their well-being, and recognizes their value to the organization (see e.g., [58–61]). In prior research, high levels of perceived organizational support were associated with positive well-being outcomes, such as job satisfaction, positive affective states [58,59], and work engagement [61,62]. In addition, a lack of organizational support was associated with negative well-being outcomes, such as stress, fatigue, anxiety, and burnout [58,60].

The importance of organizational support was also noted in studies covering the impact of the COVID-19 pandemic on work. For example, in their overview of the impact of COVID-19 on workplaces, Kniffin et al. [12] discussed the vital role of organizational support in restoring the balance between job demands and resources to secure employee well-being. In addition, aspects of organizational support—such as open communication and information sharing—were found to help sustain employees' sense of psychological safety [63], job satisfaction, and trust towards their employer [64], while also fostering positive emotions amid COVID-19-induced changes [65]. Further, organizational support has also been found to play a role in mitigating employees' stress and anxiety in care work [66]. Additionally, high-quality organizational communication was associated with a lower intention to resign by nursing home staff, even when COVID-19-related stressors were high [67]. Thus, based on previous research, organizational support can be understood as a job resource that can buffer the negative effects of straining job demands—such as COVID-19-related stressors—and support employee well-being. Hence, for all occupational groups, we hypothesize the following:

Hypothesis 4 (H4a). *COVID-19-related organizational support is positively related to work engagement.*

Hypothesis 4 (H4b). *COVID-19-related organizational support is negatively related to exhaustion/stress.*

1.4.2. Digital Job Resources: Positive Attitude towards Digital Solutions

Individuals' affective reactions towards technology, particularly new technology use [68], and its implications for employee well-being have been recognized for some time [69,70]. Specifically, scholars suggested that attitudes towards digital solutions affect how an employee experiences the use of technology in terms of well-being at work. For example, Moreira-Fontan et al. [71] found that teachers' positive emotions towards information and communication technology (ICT) tools were related to higher work engagement. In addition, a positive attitude towards digital solutions was identified as a personal resource that can mitigate technostress [72]. The attitude towards technology was found to mediate the relationship between ICT exposure and burnout. In particular, high exposure to digital tools leads to more positive reactions, thus decreasing the symptoms of burnout [73]. The COVID-19 pandemic has accelerated digitalization, and thus presumably led to higher exposure to digital solutions among a variety of occupations. According to previous literature [73], the higher exposure to digital solutions can lead to more positive attitudes towards digital solutions and decrease the negative symptoms of well-being at work. Since the use of ICT tools has increased across occupations and sectors, we hypothesize the following for all the examined occupational groups:

Hypothesis 5 (H5a). *A positive attitude towards digital solutions during COVID-19 is positively related to work engagement.*

Hypothesis 5 (H5b). *A positive attitude towards digital solutions during COVID-19 is negatively related to exhaustion/stress.*

1.4.3. Digital Job Resources: Well-Functioning Digital Meetings

For many professionals, especially knowledge workers, a significant effect of COVID-19 has been the rapid transition to remote work and the associated increase in digitalized communication [74]. Teamwork has mostly switched to a digital format, which may emphasize the role of smooth computer-mediated communication in employee wellbeing (see, e.g., [12,75]). Research on ICT use and well-being at work has indicated that computer-mediated communication may act both as a job demand and resource, depending on, for example, workplaces' practices and the quality of digital communication [76–80]. Prior COVID-19-related research also showed that while remote working and the subsequent reliance on digital communication may induce, for example, communication overload, it can also be a job resource when computer-mediated teamwork and communication practices are well-functioning [75,80]. In this context, we hypothesize that well-functioning digital meetings are related to well-being at work among occupational groups that presumably have digital meetings at work. Therefore, we predict the following for the professional, scientific, and technical employees, as well as teachers:

Hypothesis 6 (H6a). *Well-functioning digital meetings during COVID-19 are positively related to work engagement.*

Hypothesis 6 (H6b). *Well-functioning digital meetings during COVID-19 are negatively related to exhaustion.*

2. Materials and Methods

2.1. Data

This study explored four occupational groups: (1) professional, scientific, and technical occupations in Norway; (2) teachers in Finland; (3) health and social service occupations in Norway; and (4) geriatric nurses in Finland.

2.1.1. Groups 1 and 3

The Norwegian data were collected as a part of the 'Healthy workplaces in light of COVID-19' project over the time period from January to February 2021. The data samples utilized in this study were subsets of a larger convenience sample. In this study the chosen samples are presented as the following occupational groups: (1) professional, scientific, and technical services; (2) health and social services.

The professional, scientific, and technical occupation sample included, among others, law, accounting, administration, architecture, research, marketing, communication, and veterinary services professions. The health and social services industry group included health services in and outside of institutions, social services such as asylum reception centers, kindergartens, and after-school care schemes, as well as other care and associated services.

A digital survey was constructed using the University of Oslo's Nettskjema platform. A link to the survey was posted on social media and sent via e-mail to relevant respondents alongside a supporting letter that contained information about the survey and contact information for the project managers and assured participants about the voluntary nature of their participation, the maintenance of their anonymity, and confidentiality of their answers. The project followed the guidelines of the Norwegian Centre for Research Data (NSD): all data were treated confidentially, and data material was anonymized.

Of the 627 who responded to the questionnaire, 301 worked in the professional, scientific, and technical services group, of whom 174 were women (58%), and 127 were men (42%). The age distribution was 14% 'up to 25', 19% '26–40', 41% '41–55', and 26% '56 and above'. The health and social services group sample consisted of 267 workers, of whom 204 (76%) were women, and 63 were men (24%). The age distribution was 26% 'up to 25', 23% '26–40', 36% '41–55', and 15% '56 and above'. The remainder who responded indicated their industry grouping as 'other'.

2.1.2. Group 2

This study was conducted as part of a larger 'Sustainable Brain Health' project. Cross-sectional survey data were gathered between December 2020 and February 2021 through an online questionnaire using Microsoft Forms. A link to the survey was sent to comprehensive schoolteachers employed by the city of Tampere. The project contact person at Tampere sent out the survey link alongside a privacy notice and other relevant information regarding the study through the schools' information-sharing web service, Wilma. A total of 361 responses were received, of which 38 non-teacher (e.g., administrative personnel) responses were excluded from the study. This amounted to a total of 315 teacher responses. The majority of the respondents were women (84%), and most of the respondents (55%) were 40–54 years of age, followed by those in the 55 + (25%) and 25–39 (20%) age groups. Of the respondents, 52% were primary school teachers (grades 1–6), 30% taught in upper comprehensive school (grades 7–9), and the rest (18%) worked in both. During the first wave of the pandemic, for the most part, schools in Finland switched to distant learning for two months (March 18–May 13). Of the respondents, 75% had worked solely remotely during that time, and 9% had worked solely in school, while the rest worked in both. Later, after spring 2020, teachers worked mainly in schools doing classroom and hybrid teaching.

2.1.3. Group 4

Data on geriatric nurses were collected through surveys using the LimeSurvey platform as a part of a larger 'Healthy Care' development project that aimed to investigate and develop employee well-being in elderly care units in Finland. The survey data were

collected between April and September 2021 from 10 individual elderly care units located across different parts of Finland. Employees either received a link to the survey with the project's privacy agreement via their manager, or the link was sent directly to their work email, depending on whether they had an individual work email address. A total of 114 responses were received. However, nine responses from personnel working with administrative, catering, and cleaning services were excluded from the data analysis, since the target group was limited to nurses. The remaining 105 responses were from practical nurses (84%), registered nurses (14%), physiotherapists, and public health nurses. Of this group of respondents, 96% were female, and 4% were male. The age distribution was 10% 'below 25', 30% '25–39', 39% '40–54', and 21% '55 and above'. It should be noted that geriatric nurses in Finland have been working on-site to take care of elderly people during the whole pandemic. During the data collection period, geriatric nurses had strict pandemic-related safety measures at work.

2.2. Measures

2.2.1. COVID-19 Indicators

This study utilized three single COVID-19 job demand items and two single COVID-19 job resource items from the Department of Psychology at Norwegian University of Science and Technology (NTNU) to measure COVID-19-related changes in all four occupational groups. The items were rated on a five-point Likert scale ranging from 'Totally disagree' to 'Totally agree'. The three statements for COVID-19 job demands were as follows:

- 'It is more difficult to distinguish between home life and work during the COVID-19 pandemic'.
- 'My workload has increased during the COVID-19 pandemic'.
- 'I'm worried about COVID-19 infection at work'.

The two chosen statements for digital job resources were as follows:

- 'I have become more positive about digital solutions'.
- 'Digital meetings have worked well'.

Hence, the final variables related to COVID-19 pandemic job demands and resources were home–work imbalance, increased workload, fear of infection, positive attitude towards digital solutions, and well-functioning digital meetings.

Meanwhile, the COVID-19-related organizational support is a scale devised by the Department of Psychology at NTNU. The variable is based on the following four items related to the measures taken and information given during the pandemic:

- 'My employer has taken suitable measures to secure the working environment during the COVID-19 pandemic'.
- 'My employer has taken suitable measures to ensure productivity during the COVID-19 pandemic'.
- 'I have received sufficient information from my employer about measures surrounding the COVID-19 pandemic'.
- 'My employer keeps me updated about measures surrounding the COVID-19 pandemic'.

The statements were answered on a five-point Likert scale ranging from 'Totally disagree' to 'Totally agree'. The Cronbach's alpha of organizational support was above the recommended threshold of 0.7 for all four samples, as displayed in Tables 1 and 2.

2.2.2. Employee Well-Being Indicators

The Utrecht Work Engagement Scale (UWES-3) [81] was used as a positive indicator of employee well-being in all four groups. The indicator consisted of three items, each covering one dimension of work engagement, as follows: (1) 'At my work, I feel bursting with energy'; (2) 'I am enthusiastic about my job'; and (3) 'I am immersed in my work' [81]. The items were standardized, and averaged into one variable (Cronbach's alpha for each group is illustrated in Tables 1 and 2). For the Finnish studies (Groups 2 and 4) a seven-point Likert scale was used, as follows: (0) 'Never'; (1) 'A few times a year or less'; (2) 'Once

a month or less'; (3) 'A few times a month'; (4) 'Once a week'; (5) 'A few times a week'; and (6) 'Every day'. Meanwhile, the Norwegian studies (Groups 1 and 2) utilized a five-point Likert scale, as follows: (1) 'Never'; (2) 'Rarely'; (3) 'Sometimes'; (4) 'Often'; and (5) 'Always'.

Since the data samples were collected through surveys as part of different research projects, there were minor variations in the measures utilized for investigating negative effects on employee well-being. Existing research has widely suggested that emotional exhaustion is the key element of burnout, and also covers an aspect of stress (see, e.g., [33]). From the three subdimensions of burnout (exhaustion, cynicism, and inadequacy/inefficacy), exhaustion was selected as an indicator of a negative effect on well-being in the three samples covered in this study. Further, individual stress was utilized as a negative indicator of employee well-being in one sample. The exhaustion and stress measures used in the individual samples are presented below.

Groups 1 and 3 (Norway): Exhaustion was measured using one of the subdimensions in the Burnout Assessment Tool (BAT) developed by Schaufeli and colleagues [35]. Exhaustion consisted of three items such as 'At work, I feel mentally exhausted'. The statements were answered using a five-point Likert scale, as follows: (1) 'Never'; (2) 'Rarely'; (3) 'Sometimes'; (4) 'Often'; and (5) 'Always'. Here, Cronbach's alpha (illustrated in Table 1) was satisfactory, ranging from 0.85 to 0.88.

Group 2 (Finland): Emotional exhaustion consisted of three items that covered the exhaustion dimension of the nine-item Bergen burnout inventory (BBI-9) [82,83], and included items such as 'I often sleep poorly because of the circumstances at work'. In the questionnaire, a six-point Likert scale was used, as follows: (1) 'Completely disagree'; (2) 'Disagree'; (3) 'Partly disagree'; (4) 'Partly agree'; (5) 'Agree'; and (6) 'Completely agree'). Here, Cronbach's alpha (illustrated in Table 2) was satisfactory (0.75).

Group 4 (Finland): The stress measure used in the survey of nurses is a well-known single-item measure of stress symptoms [84]. Here, the question referred to generic feelings of stress: 'Stress means a situation in which a person feels tense, restless, nervous or anxious or is unable to sleep at night because their mind is troubled all the time. Do you feel this kind of stress these days?' The measure used a five-point Likert scale, as follows: (1) 'Not at all'; (2) 'Only a bit'; (3) 'Somewhat'; (4) 'Rather much'; and (5) 'Very much'.

2.2.3. Control Variables

Age- and gender-specific differences were controlled for in the regression analysis. The gender variable consisted of two items: (0) 'Male' and (1) 'Female' in all four samples. In samples from Finland, the age item of the survey contained four response options: 'Below 25-years-old'; '25–39-years-old'; '40–51-years-old'; and '55-years-old or older'. In the sample from Norway, the categories were 'up to 25', '26–40', '41–55', and '56 and above'.

2.3. Hierarchical Regression Analysis

The relationships were tested utilizing two separate hierarchical regression analyses for each group (four groups, which means eight regressions in total). The analyses were conducted using SPSS (IBM SPSS Statistics, Version 27, Armonk, NY: IBM Corp, United States). The risk for multicollinearity of all variables was checked prior to selecting variables for the finalized regression model. VIF factors of all variables within all examined groups were between 1–1,4; thus, the risk for multicollinearity was considered low. Work engagement and exhaustion/stress were used as dependent variables. Age and gender were entered as control variables in the first step. The rest of the independent variables were entered in the second step. These variables were the investigated COVID-19-related job demands (three variables), digital job resources (two variables), and organizational support during the pandemic as a job resource (one variable). In the regression analysis, an R^2 value of 0.25 was considered small, 0.5 was moderate, and 0.75 explained a significant amount of variance.

3. Results

3.1. Descriptive Statistics

3.1.1. Professional, Scientific, and Technical Occupations and Teachers

Table 1 illustrates the means, standard deviations, and correlations between all study variables of occupational Groups 1 and 2: professional, scientific, and technical occupations in Norway, and teachers in Finland.

Table 1. Means, standard deviations (SD), and correlations for occupational Groups 1 and 2—Data of professional, scientific, and technical group (n = 301) and teachers group (n = 315).

Descriptive Statistics and Correlations: Professional, Scientific, and Technical Employees and Teachers										
	Mean	**SD**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Group 1—Professional, scientific, and technical, Norway										
Independent variables										
1. Home–work imbalance	3.30	1.23	–							
2. Workload increase	3.25	1.01	0.23 ***	–						
3. Fear of infection	2.75	1.19	0.02	0.07						
4. Organizational support	4.08	0.67	0.02	0.09	−0.08	*0.78*				
5. Positive attitude towards digital solutions	3.79	0.89	0.00	0.14 *	0.12 *	0.18 **	–			
6. Well-functioning digital meetings	3.90	0.89	−0.09	0.08	0.09	0.22 ***	0.50 ***	–		
Dependent variables										
7. Work engagement	3.93	0.57	−0.01	0.10 *	−0.10 *	0.15 **	0.07	0.07	*0.80*	
8. Exhaustion	2.02	0.79	0.25 ***	0.27 ***	0.06	−0.06	−0.04	−0.14 **	−0.28 ***	0.88
Group 2—Teachers, Finland			1	2	3	4	5	6	7	8
1. Home–work imbalance	3.87	1.13	–							
2. Workload increase	4.33	0.90	0.51 ***	–						
3. Fear of infection	3.59	1.22	0.17 **	0.17 **	–					
4. Organizational support	3.66	0.81	−0.09	−0.02	−0.21 ***	0.84				
5. Positive attitude towards digital solutions	3.58	0.88	−0.06	0.08	0.07	0.19 ***	–			
6. Well-functioning digital meetings	3.54	0.95	−0.03	−0.02	0.06	0.23 ***	0.29 ***	–		
Dependent variables										
7. Work engagement	4.50	1.32	0.03	0.06	−0.03	0.24 ***	0.23 ***	0.20 ***	0.82	
8. Exhaustion	3.64	1.17	0.37 ***	0.27 ***	0.21 ***	−0.31 ***	−0.05	−0.14 **	−0.21 ***	0.75

Note: * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$. All independent items had a five-point Likert scale; the work engagement item of Groups 1 and 2 had five-point and seven-point Likert scales, respectively; the exhaustion items of Groups 1 and 2 had five-point and six-point Likert scales, respectively; Cronbach's alphas of organizational support, work engagement, and exhaustion are presented in italics in the diagonal.

In the sample from the professional, scientific, and technical services group, the mean ranged between 2.02 and 4.08. Work engagement was positively associated with workload increase and organizational support and negatively associated with fear of infection. Exhaustion was positively associated with home–work imbalance and workload increase, and negatively associated with well-functioning digital meetings. There was also a significant negative association between work engagement and exhaustion.

In the sample of teachers, the mean ranged from 3.54 to 4.50. Work engagement was positively associated with organizational support, positive attitude towards digital solutions, and well-functioning digital meetings. Meanwhile, exhaustion was positively associated with home–work imbalance, increased workload, and fear of infection, and negatively associated with organizational support and well-functioning digital meetings. There was also a significant negative association between work engagement and exhaustion.

3.1.2. Health and Social Services and Geriatric Nurses

Table 2 illustrates the means, standard deviations, and correlations between the study variables of the following occupational groups: health and social services in Norway and geriatric nurses in Finland. In the sample group of health and social services, the mean ranged between 2.18 and 4.05. Work engagement was positively associated with

organizational support and a positive attitude towards digital solutions. Meanwhile, exhaustion was positively associated with home–work imbalance, workload increase, and fear of infection. There was also a significant negative association between work engagement and exhaustion. In the geriatric nurses' sample group, the mean ranged from 2.46 to 5.56. Work engagement was positively associated with organizational support and a positive attitude towards digital solutions, while stress was negatively associated with a positive attitude towards digital solutions.

Table 2. Means, standard deviations (SD), and correlations for occupational Groups 3 and 4—Data from health and social services in Norway (n = 267) and geriatric nurses (n = 105) in Finland.

Descriptive Statistics and Correlations: Health and Social Services and Geriatric Nurses									
	Mean	**SD**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Group 3–Health and social services, Norway									
Independent variables									
1. Home–work imbalance	2.66	1.27	–						
2. Workload increase	3.43	1.15	0.22 ***	–					
3. Fear of infection	3.76	1.23	0.07	0.15 **	–				
4. Organizational support	4.05	0.70	0.09	0.08	−0.03	0.80			
5. Positive attitude towards digital solutions	3.68	0.91	0.12 *	0.07	−0.05	0.16 **	–		
Dependent variables									
6. Work engagement	3.92	0.57	−0.02	−0.00	−0.03	0.34 ***	0.23 ***	0.77	
7. Exhaustion	2.18	0.78	0.21 ***	0.23 ***	0.30 ***	−0.07	−0.01	−0.39 ***	0.85
Group 4–Geriatric nurses, Finland			1	2	3	4	5	6	7
Independent variables									
1. Home–work imbalance	2.47	1.33	–						
2. Workload increase	3.39	1.19	0.13	–					
3. Fear of infection	2.46	1.24	−0.03	0.18 *	–				
4. Organizational support	4.00	0.75	0.18 *	−0.05	0.06	0.81			
5. Positive attitude towards digital solutions	3.50	1.04	0.16	0.33 **	0.11	0.06	–		
Dependent variables									
6. Work engagement	5.56	1.06	0.12	0.05	0.16	0.31 **	0.22 **	0.71	
7. Stress	2.90	1.11	0.12	0.12	−0.07	−0.07	−0.20 *	−0.07	–

Note: * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$. The items of all independent variables had five-point Likert scales; the stress and exhaustion items had five-point Likert scales; the work engagement items of groups 3 had five-point and Group 4 had seven-point Likert scales, respectively; Cronbach's alphas of organizational support, work engagement, and exhaustion are presented in italics in the diagonal.

3.2. Regression Model Results of the Professional, Scientific, and Technical Services and Teachers Groups

Table 3 presents the regression analyses related to work engagement and exhaustion of the following occupational groups: professional, scientific, and technical services in Norway and teachers in Finland.

3.2.1. Professional, Scientific, and Technical Services (Norway)

In the sample group of professional, scientific, and technical, COVID-19-related job demands and resources were not significantly related to work engagement, giving no support to Hypotheses 1a, 2a, 3a, 4a, 5a, and 6a. However, home–work imbalance ($\beta = 0.16$, $p < 0.01$) and workload increase ($\beta = 0.21$, $p < 0.001$) were positively related to exhaustion, supporting Hypotheses 1b and 2b. On the other hand, fear of infection, organizational support, positive attitude towards digital solutions, and well-functioning digital meetings were not related to exhaustion for this group; thus, these factors did not support Hypotheses 3b, 4b, 5b, and 6b. Altogether, the regression model explained 3% of the variance in work engagement, and 15% of the variance in exhaustion.

Table 3. Regression results of occupational Groups 1 and 2.

	Norway		Finland	
	Group 1: Professional Scientific and Technical (n = 301)		Group 2: Teachers (n = 315)	
Standardised coefficients and R^2	Work engagement	Exhaustion	Work engagement	Exhaustion
	β	β	β	β
Step 1: Demographic variables [a]				
Age	0.11	−0.21 ***	0.10	−0.10
Gender	−0.03	−0.05	0.12 *	0.07
Step 2: COVID-19 variables				
Home–work imbalance	−0.02	0.16 **	0.02	0.27 ***
Workload increase	0.12	0.21 ***	0.05	0.11
Fear of infection	−0.11	0.06	−0.03	0.11 *
Organizational support	0.11	−0.04	0.18 **	−0.24 ***
Positive attitude towards digital solutions	0.01	0.05	0.14 *	−0.06
Well-functioning digital meetings	0.02	−0.12	0.11	−0.08
R^2	0.05	0.18 ***	0.13 ***	0.26 ***
ΔR^2	0.04	0.10 ***	0.09 ***	0.25 ***
adjR^2	0.03 *	0.15 ***	0.11 ***	0.24 ***

Note: * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$; [a] Controlled for age and gender; R values presented from the final step 2.

3.2.2. Teachers (Finland)

In the sample group of teachers, none of the COVID-19 job demands were related to work engagement, and therefore the results did not support Hypotheses 1a, 2a, and 3a. However, in terms of COVID-19-related job demands, home–work imbalance (β = 0.27, $p < 0.001$) and fear of infection (β = 0.11, $p < 0.05$) were positively related to exhaustion, supporting Hypotheses 1b and 3b. Regarding COVID-19-related job resources, organizational support was positively associated with work engagement (β = 0.18, $p < 0.01$), and negatively associated with exhaustion (β = −0.24, $p < 0.001$); thus, both Hypotheses 4a and 4b were supported. In addition, a positive attitude towards digital solutions was positively associated with work engagement (β = 0.14, $p < 0.05$); thus, Hypothesis 5a was supported. There was no association between well-functioning digital meetings and work engagement, therefore Hypothesis 6a was not supported. Moreover, there was no evidence that either COVID-19-related digital resources were related to exhaustion, therefore Hypotheses 5b and 6b were not supported. Together, the model explained 11% and 24% of the variance in work engagement and exhaustion, respectively.

3.3. Regression Model Results for Health and Social Services and Geriatric Nurses

Table 4 presents the regression analyses related to work engagement and exhaustion/stress of the following occupational groups: health and social services in Norway, and geriatric nurses in Finland.

3.3.1. Health and Social Services (Norway)

In the sample group of health and social services, home–work imbalance, workload increase, and fear of infection were not related to work engagement; thus, Hypotheses 1a, 2a, and 3a were not supported. However, organizational support (β = 0.31, $p < 0.001$) and a positive attitude towards digital solutions (β = 0.17, $p < 0.01$) were associated with higher work engagement, supporting Hypothesis 4a and 5a. Home–work imbalance (β = 0.16, $p < 0.01$), increase in workload due to COVID-19 (β = 0.14, $p < 0.05$), and fear of infection (β = 0.24, $p < 0.001$) were positively related to exhaustion, supporting Hypotheses 1b, 2b, and 3b. However, there was no support for Hypotheses 4b and 5b, as organizational support and positive attitude towards digital solutions were not related to exhaustion. Altogether, the regression model explained 16% of the variance in work engagement, and 17% of the variance for exhaustion.

Table 4. Regression results of occupational Groups 3 and 4.

	Norway		Finland	
	Group 3: Health and Social Services (*n* = 267)		**Group 4: Geriatric Nurses (*n* = 98)**	
Standardized coefficients and R^2	Work engagement	Exhaustion	Work engagement	Stress
	β	β	β	β
Step 1: Demographic variables [a]				
Age	0.13 *	−0.19 **	−0.15	−0.02
Gender	0.10	0.04	0.17	0.12
Step 2: COVID-19 variables				
Home–work imbalance	−0.05	0.16 **	0.08	0.19
Workload increase	−0.01	0.14 *	−0.04	0.13
Fear of infection	−0.01	0.24 ***	0.18	−0.07
Organizational support	0.31 ***	−0.07	0.29 **	−0.08
Positive attitude towards digital solutions	0.17 **	−0.01	0.18	−0.27 *
R^2	0.18 ***	0.19 ***	0.22 **	0.11
ΔR^2	0.13 ***	0.12 ***	0.18 **	0.09
adjR^2	0.16 ***	0.17 ***	0.16 **	0.04

Note: * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$; [a] Controlled for age and gender; R values presented from the final step 2.

3.3.2. Geriatric Nurses (Finland)

In the sample group of geriatric nurses, COVID-19-related job demands and a positive attitude towards digital solutions did not relate to work engagement; thus, Hypotheses 1a, 2a, 3a, and 5a were not supported. However, organizational support was positively associated with work engagement (β = 0.29, $p < 0.01$), supporting Hypothesis 4a. A positive attitude towards digital solutions was negatively related to stress (β = −0.27, $p < 0.05$), but no other associations were found among COVID-19-related job demands or resources and stress. However, the model for stress explained only 4% of the variation, and it was not significant. Thus, Hypotheses 1b, 2b, 3b, 4b, and 5b were not supported. Altogether, the model explained 16% of the variation in work engagement.

4. Discussion

This study contributes to the literature on COVID-19 and well-being at work by providing several important findings. First, the results showed associations between COVID-19-related job demands and exhaustion. Hypothesis 1b was partially supported. The positive relationship between home–work conflict and exhaustion was found in three occupational groups. This means that difficulties with balancing home and work life during the COVID-19 pandemic among professional, scientific, and technical employees in Norway, and teachers in Finland, as well as health and social service workers in Norway, was related to higher levels of exhaustion. This is in line with previous studies [12,39] which highlighted work–home conflict as a risk to well-being during the COVID-19 pandemic.

Increased workload was positively related to exhaustion in Groups 1 and 3, partially supporting Hypothesis 2b. This finding means that the greater the workload induced during the pandemic, the more exhaustion professional, scientific, and technical employees and health and social service employees in Norway experienced. However, interestingly, there was no evidence of increased workload affecting the well-being of teachers and geriatric nurses in Finland. This is in conflict with prior research on both teachers [48,53] and elderly care personnel [3,51], which found an increase in workload and subsequent negative associations with employee well-being. In the sample of teachers, this interesting result may be related to their resilience and coping abilities during times of rapid transition [15]—in this case, an increase in workload and changing work practices. Meanwhile, in the sample of geriatric nurses, this result could be related to the relatively high occupational stress and symptoms of burnout among healthcare personnel, even prior to the pandemic (see e.g., [7,10]), which may diminish the role of COVID-19-induced workload.

Fear of infection was positively related to exhaustion in Groups 2 and 3, partially supporting Hypothesis 3b. This means that the more teachers in Finland and health and social services employees in Norway were worried about being infected, the more

exhaustion they experienced. This finding supports prior studies that identified fear of infection for COVID-19 as a straining job demand (e.g., [4,57]). However, fear of infection was not related to exhaustion in the professional, scientific, and technical group in Norway. This could be because—in contrast to the other groups—they more likely to be able to work remotely and avoid close contact with other people. Furthermore, interestingly, the fear of infection was not related to exhaustion in the geriatric nurses group in Finland. This finding differs from that of previous studies which found fear of contagion to be among the major stressors in nursing homes [3,51]. It may reflect the pandemic situation in Finland, which has been less severe than in most studied countries [23], at least at the time of data collection. In addition, geriatric nursing staff may be more used to dealing with contagious infections and protective measures in their work than employees in other fields, which could explain why the fear of infection did not come up as a significant stressor in the geriatric nurses group.

The results showed an association between COVID-19-related digital job resources and work engagement. Hypothesis 5a was partially supported. The positive attitude towards digital solutions was positively related to work engagement in Groups 2 and 3. This finding is aligned with that of previous research [71], indicating that the more positive the attitude of teachers in Finland and health and social service employees in Norway towards digital solutions, the more work engagement they experienced during the pandemic. In the teachers group, this could be due to an increase in distance learning through digital devices, which could make work more motivating for those who are keen on using technology. Although health and social services workers have predominantly face-to-face contact, their working environment is presumably slowly digitalizing, with the increased adoption of ICT tools. In this context, those employees who have become more comfortable with digital solutions may also experience work engagement.

Hypothesis 4a was partially supported. A positive relationship between organizational support and work engagement was found in Groups 2, 3, and 4. This means that the more measures an employer took during the COVID-19 pandemic, the higher the work engagement was among teachers and geriatric nurses in Finland, as well as health and social service employees in Norway. The results are similar to those of pre-COVID-19 research findings regarding organizational support and work engagement [61,62]. Furthermore, as the vital role of organizational support during the COVID-19 pandemic has been discussed in prior studies (e.g., [12,64–67]), the results provide further evidence of the important role of pandemic-specific organizational support for employee well-being in these circumstances.

Additionally, Hypothesis 4b was partially supported, as there was a significant negative relationship between organizational support and exhaustion in teachers group of Finland. This means that the more measures an employer took during the pandemic, there were less exhaustion among teachers in Finland. Schoolteachers' work has been undergoing continuous change: for instance, during the rapid transition to distance learning in 2020. There was hybrid teaching during quarantines, as well as changes in safety regulations in schools. The role of organizational support (e.g., internal communication) may thus be crucial in the field of education. Interestingly, organizational support did not seem to play a significant role in mitigating stress and exhaustion in the other groups—not even elderly care. This differs from previous research findings on nursing homes [66,67] which highlighted the buffering role of organizational support on negative well-being outcomes during the COVID-19 pandemic.

The advantage of this study is its utilization of four different occupational groups across two Nordic countries to investigate the occupational and country-specific perspectives of COVID-19-related job demands, organizational support, and employee well-being. However, there are some limitations that should be acknowledged. First, there were some differences in the samples and items used in this study. The use of separate samples, analyses, and data collection periods between sample groups precluded the possibility of comparing and testing the strength of the identified associations. Hence, it was not possible

to test either the strength between country differences or the occupational differences. In addition, one of the data samples (Group 4) was relatively small, and may have had insufficient power for the regression model, since some of the coefficients were meaningful in value, but still not significant. However, as the goal was to describe the impact of the COVID-19 pandemic across four occupational groups in two Nordic countries, this sampling method was considered suitable for the aforementioned purpose. Additionally, since the data were gathered through self-reporting questionnaires, and all the data for each group originated from a common source, the quality of the data could have been affected by the data sampling method rather than the variables investigated. Thus, further studies should utilize similar comparable items and data samples to further investigate the strength of the country and occupational differences. Further studies should also elaborate on the size, as well as address the heterogeneity across groups through methods such as subgroup analyses with respect to occupation, job design, age group, and perhaps educational level as well. In addition, all variables were based on items that were self-reported by the respondents. For instance, the study captured self-reported perceptions of COVID-19-related changes, and did not consider the psychological and job-related factors before the pandemic. Hence, the degree and extent of change were not measured objectively. In addition, since the design was cross-sectional, it was not possible to conclude any causal relationships. Therefore, future research should investigate the causal relationship of pandemic-related factors to identify how fluctuations in the severity of the pandemic affect employee well-being over time as a means to gain a more comprehensive knowledge of the phenomenon. Finally, this study addressed a limited selection of factors associated with COVID-19-induced changes and employee well-being. It is thus possible that other COVID-19-related changes or demands related to it affect well-being at work in the studied occupational groups. We therefore propose future studies to test various combinations of job demands, resources, and workplace measures, such as social relationships [85], collegiality [86], leadership style, and culture [87], as well as learning opportunities at the working place [88] to examine their impact in maintaining well-being during exceptionally challenging times.

5. Conclusions

The present study responds to the need for more cross-cultural and cross-occupational knowledge on how COVID-19-related changes relate to employee well-being. Previous studies have been largely conducted in, for example, the US and the UK. However, there is less knowledge about how the pandemic has affected employee well-being among different occupational groups in Nordic countries, where restrictions are less invasive. Moreover, Norway and Finland have had a relatively low impact in relation to the number of deaths and hospitalizations. In addition, Nordic countries have a strong and well-developed welfare system related to work and health. This study relates to research regarding job demands and resources, as well as their implications on employee well-being [26]. By using COVID-specific variables, this study provides new knowledge on how the pandemic affected employees' health and well-being, and expands existing occupational health literature on work engagement and stress/burnout. Our results show that COVID-19-related job demands were not related to work engagement, but were related to staff exhaustion among three occupational groups. On the other hand, COVID-19-related organizational support seemed to be important for employees' work engagement in three occupational groups, but in terms of exhaustion, it was only significant in the teacher's group in Finland. Overall, the results indicate that COVID-19-specific job characteristics have only some association with the aspects of employee well-being among different occupational groups in Nordic countries, which can probably be explained by the less severe pandemic context in these countries.

As practical implications, finding strategies for ensuring a healthy workplace seems highly important across different occupational groups and countries. In fields and occupations with a high risk of increased workload, as well as work spilling over, it could be

beneficial for employers to take an active role in organizing work so that it can be performed in due time, even in unprecedented situations such as COVID-19, as well as discouraging extended working hours. It could also be useful to provide employees with both practical (e.g., comprehensive introduction to safety measures) and psychological support to alleviate their fear of getting infected. We also encourage employers to provide support for the implementation and use of digital solutions, since the positive attitude towards technology may act as a job resource. Finally, we recommend monitoring the development of the pandemic's effect on different occupational groups in these countries, since the strain over time could have a stronger impact and consequences on health impairment. We further suggest the development of COVID-19-specific overall organizational support to enhance well-being, since the effects of the pandemic could still become severe in Nordic countries.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to an agreement with the participants of each research project that data will be archived with a limited access. An additional restrictions apply to data of Group 2: The data were obtained in collaboration with the Sustainable Brain Health project consortium and are available from the authors with the permission of the rest of the consortium.

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Experiences of Academics Working from Home during COVID-19: A Qualitative View from Selected South African Universities

Chux Gervase Iwu [1,*], Obianuju E. Okeke-Uzodike [2], Emem Anwana [2], Charmaine Helena Iwu [3] and Emmanuel Ekale Esambe [4]

[1] School of Business and Finance, University of the Western Cape, Cape Town 7535, South Africa
[2] Faculty of Management Sciences, Durban University of Technology, Durban 4001, South Africa; obianujuo@dut.ac.za (O.E.O.-U.); emema@dut.ac.za (E.A.)
[3] Department of Sociology/Community Development, Cornerstone Institute, Cape Town 7441, South Africa; charmainei@cornerstone.ac.za
[4] Faculty of Business and Management Sciences, Cape Peninsula University of Technology, Cape Town 7530, South Africa; esambee@cput.ac.za
* Correspondence: chuxiwu@gmail.com

Abstract: The continuing crisis caused by the novel coronavirus (COVID-19) outbreak has raised significant challenges for the higher education community globally. In South Africa, the government-forced lockdown measures and social distancing containment policy changed working arrangements across sectors and organisations. As a result, academics were forced to work from home (WFH), a task for which they were hardly prepared. Several researchers have engaged the WFH situation of academics to understand the relationship between WFH and productivity. As far as we know, very few studies have tried to describe academics' WFH experiences in relation to the challenges, including determining possible ways of improving their satisfaction with working from home. We examine in this article the experiences of academics working from home across selected universities in South Africa. Using a qualitative approach and applying Atlas.ti for data analysis, our findings show that working from home in academia is a daunting task requiring extensive organisational, personal, and social adjustments. The population comprised all academics irrespective of any demographic or personality characteristic within the management faculty of the participating universities to secure the anonymity of the respondents. Five themes—inability to adapt, lack of a home office, loneliness and isolation, inability to balance family and work, and improving satisfaction with work from home—were identified as significant variables from the participants' responses. Our analysis suggests that organisations need to customise approaches to engage with the experiences of academics who work from home during COVID-19 and to develop fit-for-purpose support for these academics. The study contributes to the growing research exploring the relationship between COVID-19 lockdown and work in higher education.

Keywords: academics; COVID-19; universities; South Africa; work-from-home

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1. Introduction

COVID-19 and its various strains continue to affect organisational work arrangements. Governments worldwide introduced various confinement measures to curb the virus resulting in many organisations resorting to alternative work arrangements [1]. The COVID-19 pandemic forced millions of people to work outside the traditional office space, a working configuration described by Kniffin et al. [2], as a de facto global experiment of remote working, thus a 'new normal'. In essence, the pandemic drove a mass social experiment of 'remote working', or 'teleworking' or 'work from home' (WFH), concepts driving many organisational policies in recent times [3,4]. The situation challenged the education system's

imposed modifications for Higher Education Institutions, which have seen an unplanned and rapid shift to adopting virtual and digital strategies [5]. Like any other critical sector, the education system has been hit hard, and South Africa is not an exception. Due to the abrupt nature of the pandemic, academic staff were forced to work from home, a transition the universities and the academics were generally unprepared for [6]. This has raised significant challenges to the communities of practice, forcing unending remote teaching and learning. The shift which has reshaped the education system from the traditional face-to-face to online teaching and learning exacerbated the challenges facing academics. The capabilities of academics to wholly work remotely has never been tested before, and thus, this current age remains a testing time for academic staff. Increasingly, in South Africa and across the globe, studies are emerging on the experiences of academics working from home since the outbreak of the COVID-19 pandemic. While some studies have highlighted the (potential) positive influences [6,7], others have also provided weaknesses emerging from such working arrangements on the part of the academics [5,8].

The work from home concept has been explored from various perspectives and academic disciplines. With the availability of COVID-19 vaccines and the gradual relaxing of restrictions, variants of the virus continue to emerge, making the pandemic far from ending. Although several studies have cited various work-related trends concerning the economy, society, health, organisational productivity, etc. [9], during this pandemic, these studies may lack contextual relevance on how the pandemic has shaped academic staff experiences in the context of South Africa. Additionally, several researchers have engaged the WFH situation of academics to understand the relationship between WFH and productivity [10–12]. Hedding et al. wondered how academics were able to meet their academic targets especially considering that WFH requires numerous infrastructure—namely technology—and advised that the time was right for South African academics "to forge strong supportive collaborations enabling South African researchers to stand together and support one another, particularly in light of possible future austerity measures" [10]. Adopting the convenience sampling technique, ref. [12] wanted to know whether WFH made teaching and learning activities more productive and found that despite the low quality of content delivery, student's academic performance was not negatively affected.

As far as we know, very few studies have tried to describe the academics' WFH experiences in relation to the challenges, including determining possible ways of improving their satisfaction with working from home [13,14]. Using the structuration theory, Matli examined how academics who worked remotely fared regarding their job demands and found that South African academics suffered from work overload and pressures to be productive. Okeke-Uzodike and Gamede (2021) adopted a quantitative research approach to examine how the female academic in South Africa could manage WFH. They found the need for "institutional review and policy development on the academic workload management system to ensure work-life balance for the female academics and output maximisation for the university, especially during a pandemic" [14].

This study thus contributes to the growing research interest in the effects of the COVID-19 pandemic on the productivity of academics. More importantly, a crucial contribution of the paper is linked to the uncovering of the challenges with remote working in South Africa. For instance, cost-cutting measures were introduced in universities in reaction to reduced government funding of HEIs. WFH is effective using information communication technology [15], which adds to the operating cost of an HEI. Additionally, academics in South Africa's HEIs struggle with ill-prepared students joining HEIs [16], adding to the emerging vulnerabilities in education systems around the world [17]. Many of these students experience difficulties in coping with the demands of HE, adding to the stressful conditions for the academic [18]. During the pandemic, academic activities are conducted online, thus requiring the academic to 'double up' efforts to serve the student. The current study provides unique insight in valuing academics' experiences as they continue working from home and facing an unforeseen future. We, therefore, believe that this study reinforces the need for the government to reconsider its cost-cutting measures

in universities. Thus, the overarching intentions of this research are: (1) to describe the 'working from home' experiences of academics from selected universities in South Africa, (2) to explore the challenges experienced by academics working from home in response to the COVID-19 pandemic and (3) determine how to improve satisfaction with working from home arrangements among academics.

This article proceeds as follows beyond the introduction: the next section provides comprehensive literature on the concept of work from home in academia and the theoretical underpinnings of the study. Following this, the authors present a step-by-step research methodology adopted for the study. Henceforth, a discussion on the findings proceeded and then a concluding thought, some recommendations for policy implications, and the limitations for the study.

Theoretical Underpinnings of the Study

The COVID-19 pandemic has forced changes including the abrupt migration from physical to virtual academic activities. This shift exposed the long-term weaknesses and issues in HEIs and required academics to adapt to new ways of working while dealing with uncertainty about the return to normal. Considering the changing work arrangements, the authors developed the analytical framework from an in-depth literature review on the WFH model. In the context of the COVID-19 pandemic WFH arrangement, the authors considered essential factors such as 'organisational', 'technological', 'social', and 'personal' factors as depicted in Figure 1.

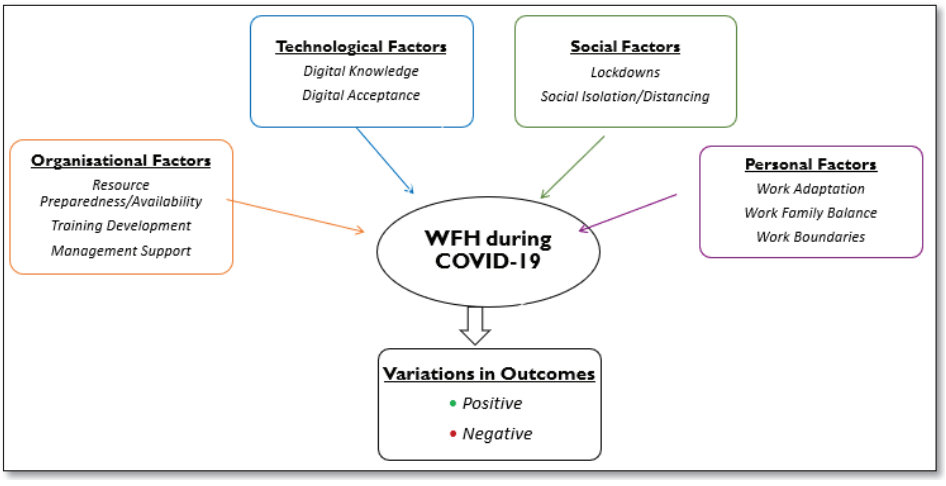

Figure 1. A quadrant factorial analytical framework of WFH. (Configured by the authors).

Figure 1 presents a quadrant factorial framework to engage with WFH for academics. These factors—organisational, technical, personal, and social—are explored to understand their influence on WFH and the outcome on academics' lived experiences, especially in the context of COVID-19. Valaitis et al. [19] define organisational factors as operational attributes, processes, or conditions within an organisation. Organisational factors also consider all elements within the internal and external environment that influence the way organisations and human resources behave. In the context of WFH, organisational factors become vital in managing processes. Therefore, Grant et al. [20] emphasised the importance of organisational factors in a WFH setup. Recent studies in COVID-19 pandemic-induced WFH have shown variations in what constitutes organisational factors. Vyas and Butakhieo [21], in their research on the impact of WFH during COVID-19, opined elements of organisational factors to include the cost of facilities, technology, organisational communication, and trust.

Similarly, other studies have listed access to and provision of information technology (IT), training, management support, and digital infrastructure as elements of organisational factors in WFH arrangements. Though synthesis and theoretical works in understanding the organisational factors that enable WFH arrangements increase, these contributions may differ in scope and object. Therefore, it is relevant to gain a deeper understanding of the WFH experiences of South African university academics. Hence, within the limit of this paper, the authors attributed organisational factors (in the WFH model of COVID-19) to elements such as resource preparedness/availability, training and development, and management support.

From a crisis management perspective, preparedness is the "aggregate of all measures and policies adopted before an event occurs that promotes mitigation of the damage caused by an event and minimises the dysfunction that could result from the damage" [22]. It consists of measures taken by all stakeholders (individuals, families, institutions, etc.) to combat the potential during and aftermath effects. Staupe-Delgado and Kruke [23] noted that the preparedness concept is vital in all crisis-related paradigms. From a human resource management perspective, training and development are critical in improving employees' skills, knowledge, and competencies. van Zoonen et al. [24], in their study on factors influencing adjustment to COVID-19 remote work, stressed the importance of training and development. Cabero-Almenara et al. [25] asserted the importance of technological skills and readiness amongst academics to succeed in the COVID-19 times. Other researchers emphasised the need for institutional management support, which entails the excellent use of regulations, services, and infrastructure [26], as vital in WFH arrangement [15,27].

The COVID-19 pandemic also accelerated digitisation and increased the adoption of technologies for effective operations in the new conditions. We refer to technological factors in this article as digital knowledge and digital acceptance. According to Pangrazio, Godhe, and Ledesma [28], digital learning addresses the skills and the disposition needed to use technology within the discipline context. Digital acceptance, on the other hand, addresses an individual's willingness [29] or a subject's attitude and adoptive behaviour towards the use of technological resources [30]. In the context of the COVID-19 pandemic, academics are using various digital platforms to carry out their activities; thus, their experiences in using and accepting technologically enabled systems become crucial elements for consideration in the WFH arrangement.

When the COVID-19 pandemic struck South Africa, the government containment measures included lockdowns and social isolation/distancing, which enforced mandated work from home for academics. According to Marshall, Michaels, and Mulki [31], isolation refers to the perception of a lack of availability of support, recognition, and missed opportunities for informal interactions with co-workers. Drawing from this definition, van Zoonen et al. [24] relate social isolation to co-workers' physical and psychological distance. Recent studies since the pandemic outbreak alluded to COVID-19-related lockdown and social distancing posing challenges of psychological well-being for employees working from home [24,32–34]. Hence, lockdowns and social isolation became pressing issues that required psychosocial support for academics.

The pandemic led to an unexpected and rapid shift from the traditional office workplace to work from home arrangements—a changed scenario with levels of uncertainty. Furthermore, the WFH arrangement has been one of the visible changes in the world of work since the pandemic, which has raised some personal concerns for academics. In relation, we examine three personal factors: work adaptation, work-family balance, and work boundaries. Scholars have argued that change is a constant phenomenon, and one's openness to respond to change depends on adaptability, ability to manage related stress, uncertainty, flexibility, and resilience to make the necessary changes towards one's personal and social lives [35,36]. Hence, the extent to which academics successfully navigate and adjust to change/pandemic disruptions become vital for survival. Nonetheless, adaptability is the capacity to regulate one's behaviours, thoughts, and feelings in response to novel, unstable, uncertain, and unexpected situations, and circumstances [37,38]. In a

crisis, such as COVID-19 restrictions, WFH, and lockdowns, adaptation become a relevant personal attribute [39], needed by employees to adjust to the new demands of work [24]. For academics, it entails new work practices (communication and collaboration via digital technologies), new routines, spatial adaptation, lifestyle adaptation, new skill development, and self-management [40]. Adapting to the WFH model also requires attention to one's work–family balance and work boundaries. Studies on the work from the home model during COVID-19 have shown mixed experiences in managing work–family balance and work boundaries [3,41–43].

Given the above discussions, the authors' view that organisational, technical, social, and personal factors, as depicted in Figure 1, are necessary to provide knowledge of academic staff experiences of COVID-19 pandemic work from home arrangements. Exploring these factors helps to ascertain the extent of possible positive and negative outcomes experienced by academics.

2. Work from Home: Understanding the Concept in Academia

The COVID-19 pandemic has forced many organisations to find alternative work arrangements. Responding to this emergency, information communication and technology-enabled work arrangements surfaced with varying terminologies, including work from home (WFH), teleworking, telecommuting, remote working, etc. This concept was first introduced by Nilles [44] during the oil crisis in the 1970s. The ideology gained popularity in the early 2000s, with technological development to create more flexible work arrangements and reduce commuting to a central workplace [3,4]. While research has pointed to slight differences in the understanding of 'WFH', 'teleworking', 'telecommuting', and 'remote working', scholars often used them interchangeably, especially in the context of COVID-19. Adopting WFH in this article, a working from home arrangement is considered one of the fastest measures in containing the ongoing virus, thus leading to the concept becoming increasingly trending. From a general perspective, WFH refers to a "working arrangement in which a worker fulfils the essential responsibilities of their job while remaining at home, using information and communications technology (ICT)" [1]. Within the context of COVID-19, WFH refers to a unique home-based teleworking as a temporary, alternative working arrangement. Although not widely practised [45], WFH supports various work types [46]. Dayaram and Burgess [47] argue that the WFH arrangement has brought notable changes across organisations and different occupations since the virus outbreak.

According to Vyas and Butakhieo [21], the concept of working from home is not new. With the new waves of the virus emerging and the advent of technology, organisations, including academic institutions, are increasingly adopting WFH, making it the 'new normal. It is worth noting that WFH has not been a prevailing culture in the South African higher education sector. The pandemic has significantly altered the work order, work processes, and organisational culture, resulting in WFH impacting higher education institutions' (HEIs') environment and academic staff's occupational ideology of work [3]. Educational activities (lectures, practical, research, etc.) have been disrupted to a sizeable magnitude in South African HEIs. The pandemic crisis has reshaped traditional face-to-face teaching and learning by accelerating the adoption of remote and online pedagogies [7], making it pertinent for academics. Before the pandemic, South African universities seldom used online platforms for teaching, instead to facilitate communications (through announcements), consultations, post assignments for students, etc. In acknowledgement, Mpungose [48] and Amory [27] opined that South African universities mostly adopted learning management systems to cope with the demands of accessibility and flexible online content dissemination. Today, the COVID-19 crisis has challenged academics on the collective use of technological equipment and resources separated from the central office work to home. Hence, academics have resorted to working from home, delivering courses and offering other academic activities and services using technologically enabled platforms. Despite these technological tools' availability, academics face the consequences as the struggle to normalcy remains uncertain.

In terms of the changing work paradigm due to COVID-19, the shared experiences of academics working from home have had, arguably, varied outcomes. Using latent class analysis, Kotini-Shah et al. [49] examined the work-life balance and productivity amongst academic faculty staff working from home during COVID-19 and found a variation on the impact. While early- and mid-career academics were negatively impacted by an increased workload, stress, and decreased self-care, advanced career level academics were moderately affected with low-level stress and workload [49]. Parham and Rauf's [34] study on obligatory remote working in HEIs shows positive and negative impacts on academic staff. For Parham and Rauf [34], academics enjoy flexibility in the WFH model, which entails avoiding commuting, reducing chances of infection, and carrying out tasks in one's comfort zone. However, they also noted that such work arrangements interfere with academic staff's work–life boundaries and poses health-related issues. Further, due to time pressure, academics struggle to learn and adapt to customised online pedagogies, resulting in an increased workload [14] and can be less productive [34], especially in research and publications.

Ugwuanyi, Okeke and Shawe [50] studied academic staff perception of the impact of WFH on effective teaching and learning. They sampled twenty-eight academic staff across universities in three provinces in South Africa. The result of the study indicated a negative development, and that it mentally drained academic staff, affected teaching and learning negatively, and stalled academic productivity levels. In another study, Van Niekerk and Van Gent [51] found an increased risk of mental and well-being among academic staff in a South African university during the stages of COVID-19 lockdown. Similarly, in their study, Walker, Fontinha, Haak-Saheem, and Brewster [52] found that the WFH model during COVID-19 negatively affected teaching and learning and posed an increased workload for academics in a UK Business School. In another study, Ghali-Zinoubi, Amari, and Jaoua [53] showed a strong positive link between flexible work arrangements, work pressure, work–life conflict, and academic satisfaction. They assert that online teaching and learning is a source of work pressure that affects academics' mental and physical health—consequently an occupational risk [41]. Accordingly, the COVID-19 pandemic-enforced WFH has impacted academic staff's work–life integration, boundaries, and balance, making it less tenable [14].

3. Methodology

We adopted a qualitative approach to collect the data for this study because it is an approach that allows a participant to be freely expressive. Despite the existence of crisis-oriented research reports in extant literature [37,50,54] and the absence of a standardised data collection instrument, we derived items for the qualitative inquiry from our individual experiences and drew from similar research (such as [14,50]). Convenience sampling was used to smoothly recruit participants whose experiences form a basis for identifying themes for further research and new practices. Considering the pandemic, data collection benefited from using technology (email). Interviews do not necessarily conceal participants identities [55] and because the data needed for this study required 'personal experiences', it was instructive to identify a strategy to maintain confidentiality and anonymity [56]. The lead researcher approached one of the deans of one of the management science faculties of the earmarked universities to use the Commerce Deans Association's platform to solicit participation from his colleagues. The refined letter of invitation, including the questions (see Appendix A) to participate in the study, was circulated for sharing in the respective faculties. The questions covered participants' experiences and challenges with working from home during the COVID-19 pandemic and suggestions to alleviate the WFH experience. Overall, we received 36 responses, but only 18 participants answered all the questions, as depicted in Table 1. The population comprised all academics irrespective of any demographic or personality characteristics within the management faculty of the participating universities to secure anonymity. Five themes—inability to adapt, lack of a home office, loneliness and isolation, inability to balance family and work, and improv-

ing satisfaction with work from home—were identified as significant variables from the participants' responses. As a commonly used tool in qualitative studies, thematic analysis permitted the identification, analysis, description, organisation, and reporting of dominant and significant themes in the data [57–59] following the six-step thematic analysis process of Braun and Clarke (2006) [60].

Table 1. Participants.

Participants' HEI	Male	Female
Private	7	3
Public	6	2

4. Findings and Discussion

We formulated this study to attend to three objectives, namely to: (1) describe the 'working from home' experiences of academics from a few South African higher education institutions, (2) explore the challenges experienced by academics working from home in response to the COVID-19 pandemic and (3) determine how to improve satisfaction with working from home arrangements among academics. These objectives were founded from the disruptions experienced in the higher education system as induced by the COVID-19 pandemic. Data analysis and presentation of analysis in this section followed the constant comparison technique. Specifically, the participants' experiences, challenges, and suggestions for improvement as manifested in the data were constantly compared across respondents. As provided in Hancock, Ockleford, and Windridge [61], constant comparison allows the identification of essential themes from data. This method was deemed appropriate for the study as it allowed the identification of patterns in responses and their further abstraction to themes. Atlas.ti (a software for qualitative data analysis) was used to perform the constant comparison analysis effectively.

4.1. Experiences of Virtualisation and Home Working among Academics

The first step to obtaining the experiences of virtualisation and home working among academics was the sampling of relevant sentences that explained the respondents' experiences and feelings. As indicated earlier, constant comparison emerged from grounded theory and is implemented with other grounded theory techniques. The comparison involves identifying concepts and cases for further analysis as they are likely to contribute to emerging theory. Kolb [62] explains that relevant codes are initially extracted from a data set using purposive and systematic coding following the comparative analysis technique. Table 2 provides the main results of the initial selection and open coding techniques.

Table 2. Initial coding of data extractions.

How Did You Feel About Working from Home?	Coding
Well, it was mixed feeling. One part of me saying, wow, this is an opportunity to explore a new way of working without necessarily tied to office routine while the other part was the challenge of adopting to a method that was completely unprepared for.	- Mixed feelings - Excited with the new ways of working - Uncertain of the new challenge - Not prepared
The first hard lockdown was challenging. I found myself spending more time focused on work and being available for students and family at the same time. As burnout was about to hit, I realised that I needed to slow down and stick to 'office' hours.	- Uncertain of the new challenge - Balancing family and work - Burnout - Feeling comfortable with time
It was sometimes a challenge with managing home life with children and online schooling. It was a challenge dealing with constant change and unknowns.	- Challenged with the new ways - Balancing family and students

Table 2. *Cont.*

How Did You Feel About Working from Home?	Coding
Initially it was refreshing, no long commute (great savings in petrol usage), being able to start work a little later (no early to wake time), better eating and sleep schedule and off course shorter hours. the longer we 'stayed' things became problematic. Having to learn software programs was daunting! (annoying).	- Feeling refreshed with the new way at first - Feeling uncomfortable - Annoyed with new ways - Feeling lonely
Working from home was not pleasant. Most domestic chores I would have ignored if I am working from office had to be done by me.	- Feeling challenged by new ways
Working from home allowed more flexibility; creativity and early morning focused. In one hand, family members enjoyed my presence. In the other hand, I was overwhelmed by their excessive demands	- Feeling refreshed - Feeling uncertain - Challenged by the new ways
Working from home is very productive, there are no distraction.	- Feeling refreshed, comfortable
experienced social isolation during the lockdown period in 2020. working from home has led to a decline in productivity and some health challenges.	- Feeling lonely - Feeling depressed
I was very happy at the opportunity to work from home. This is because the location of my place of work is very far from where my family resides. working from home afforded me the opportunity to stay with my family.	- Happy for the opportunity - Refreshed - Family closeness
Takes away the hustle of waking up too early and to drive to work, and when I get there, I need a few more minutes to relax before I start working. Additionally, there are other employees disturbing productivity.	- Feeling refreshed - Feeling secure - Feeling at ease
Working at home comes with mixed feelings.	- Feeling unsure
I felt safe working from home.	- Feeling secure, safe
There are positive and negative aspects I would like to point out from working from home. The positive aspects are work flexibility, closeness to the family, comfort, maximising the use of technology and better productivity. The negatives are overworking without breaks, background noise of TVs and vacuum cleaners, less interaction with colleagues and students as well as monotony of work.	- toeFeeling refreshed - Feeling lonely - Burnout - Depression - Uncomfortability of home
Challenge for us to adapt completely to this new way of working.	- Feeling challenged
I have been stuck at home since 15 March 2020 due to the pandemic. it was a little difficult because of technological issues. But those issues were quickly resolved by the college IT department and the classes went forward with minimal problems. I am conflicted about the experience. I missed interacting with my students face-to-face on campus. I also missed the use of the vast amount of research resources physically present on campus.	- Feeling lonely and trapped initially - Feeling relieved with technology later - Feeling lonely - Feeling disadvantaged
Wonderful. Do not have to drive to the office.	- Feeling refreshed

Table 2. *Cont.*

How Did You Feel About Working from Home?	Coding
Initially, I had a little trouble condition reduces the opportunity to understand the characteristics and personality of each student. Work becomes easier, faster, more effective, and efficient.	- Initially feeling uncertain - Feeling abstracted - Feeling comfortable with time
At the beginning, it was very extraordinary and fun, but starting at week 6, the student response decreased.	- Feeling fun at first - Feeling challenged with time - Depression, burnout

The above codes were then considered to establish categories and themes based on observable data patterns. The codes were considered to fall into groups of positive and negative experiences in 'Families' in Atlas.ti. Therefore, the initial codes were put into two categories of positive and negative experiences. Atlas ti. codes within each category were coloured by their density and groundedness on a network diagram provided in Figure 2.

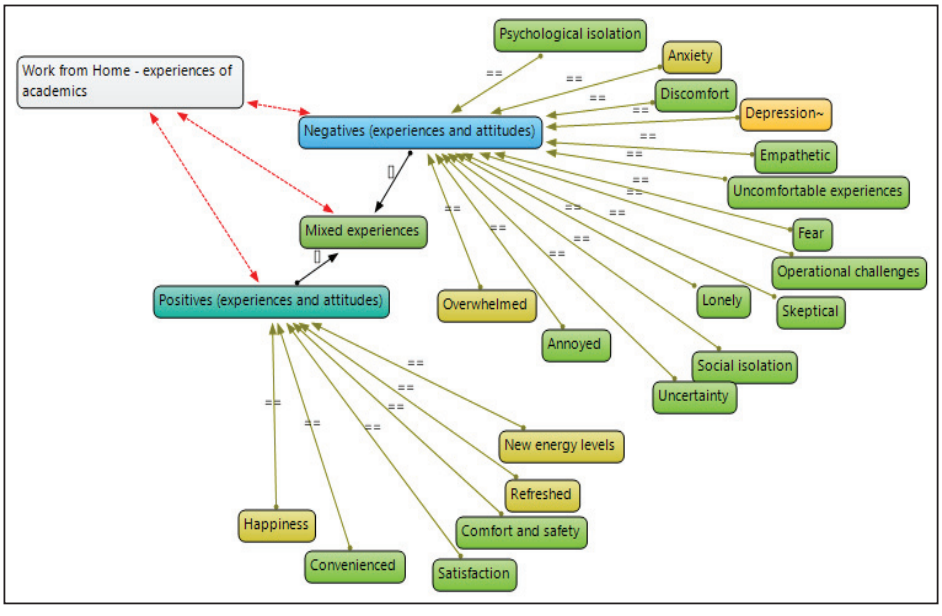

Figure 2. Academics' lived experiences of virtual work arrangements.

4.2. Negative Experiences and Attitudes

Principal codes clustered around this theme included depression, anxiety, and feeling overwhelmed by the situation. One respondent, from which depression, anxiety, and burnout emerged, explained that " . . . virtual meetings unlike contact meetings are extremely draining and can lead to burnout." Another respondent provided that:

> *"One of my first challenges was how to complete the semester with a transition to online learning whilst students and myself and my family were all dealing with massive change, anxiety, unknown and constantly shifting expectations and circumstances as my institutions tried to figure their way through which did not always match with my own ideas about how to make things work."*

There was a clear pattern of response indicating the anxiety associated with the novelty of virtual academic work. Evidence collected from the respondents also highlighted the

emotional challenges academics faced as the death toll increased and uncertainty engulfed communities. As such, evidence from the study suggests that academics were faced with new working arrangements under emotional ill health and stress conditions. Associated with anxiety, depression, and burnout were further feelings of physical and psychological isolation, loneliness, fear, scepticism, uncertainty, and operational challenges. Therefore, to some extent, evidence from this study suggests that academics had unfavourable experiences characterised by uncertainty, emotional drain, depression, and isolation.

In contrast, there was also evidence indicating positivity and favourable experiences of the virtualisation process. On the positive experiences, some academics felt happy and refreshed to work from home. It appeared that respondents held mixed feelings that mainly were iteratively witnessed: either they started with negative perspectives that later became positive or with positives that later changed to negatives. One respondent stated that:

> *"There are positive and negative aspects I would like to point out from working from home. The positive aspects are work flexibility, closeness to the family, comfort, maximising the use of technology and better productivity. The negatives are overworking without breaks, background noise of TVs and vacuum cleaners, less interaction with colleagues and students as well as monotony of work."*

In many cases, what was considered favourable by one respondent was unfavourable to the other. The differences in experiences demonstrate general perspectives and impacts and personalised views, showing the uniqueness of academic circumstances. Whereas the workplace is a neutral space and context for work, homes are different. The perspectives of the academics present a complicated view because what is observed in one home tend to differ from the next home.

4.3. Positive Experiences and Attitudes

This theme described the theme of satisfaction with working from home, and several codes were clustered around it. As expressed by one respondent, when working from home, work " . . . becomes easier, faster, more effective, and efficient." These sentiments demonstrate good feelings associated with working from home. The excitement and happiness in some respondents can also be captured in the sentiments that working from home is "an opportunity to explore a new way of working without necessarily tied to office routine." This demonstrates that some academics found working from home as an adventure that allowed them to explore new ways and methods of work. In some instances, respondents felt that work from home resulted in the emergence of new energy levels as it was convenient. The convenience was mainly associated with the realisation that working from home allowed work to be completed in "the comfort of the home." One respondent explained that working from home was:

> *" . . . refreshing, no longer commuting—great savings in petrol usage—being able to start work a little later (no early to wake time), better eating and sleeping schedule and of course shorter hours."*

It should be mentioned that the positive and the negative views about working from home as expressed in this study did not appear as completely distinct constructs as one person could be associated with them. Some of the respondents felt that working from home made it enjoyable as one performs work duties under the comfort of the home. In other words, many respondents highlighted that they possessed both positive and negative feelings.

4.4. Challenges Faced by Academics Working from Home

To explain the feelings and perspectives of the academics working from home, we explored the challenges they faced and the efficacy of any coping strategies adopted. Figure 3 provides a coding chart with comments from ATLAS.ti, which was used to explore the challenges academics face and the coping strategies they adopted.

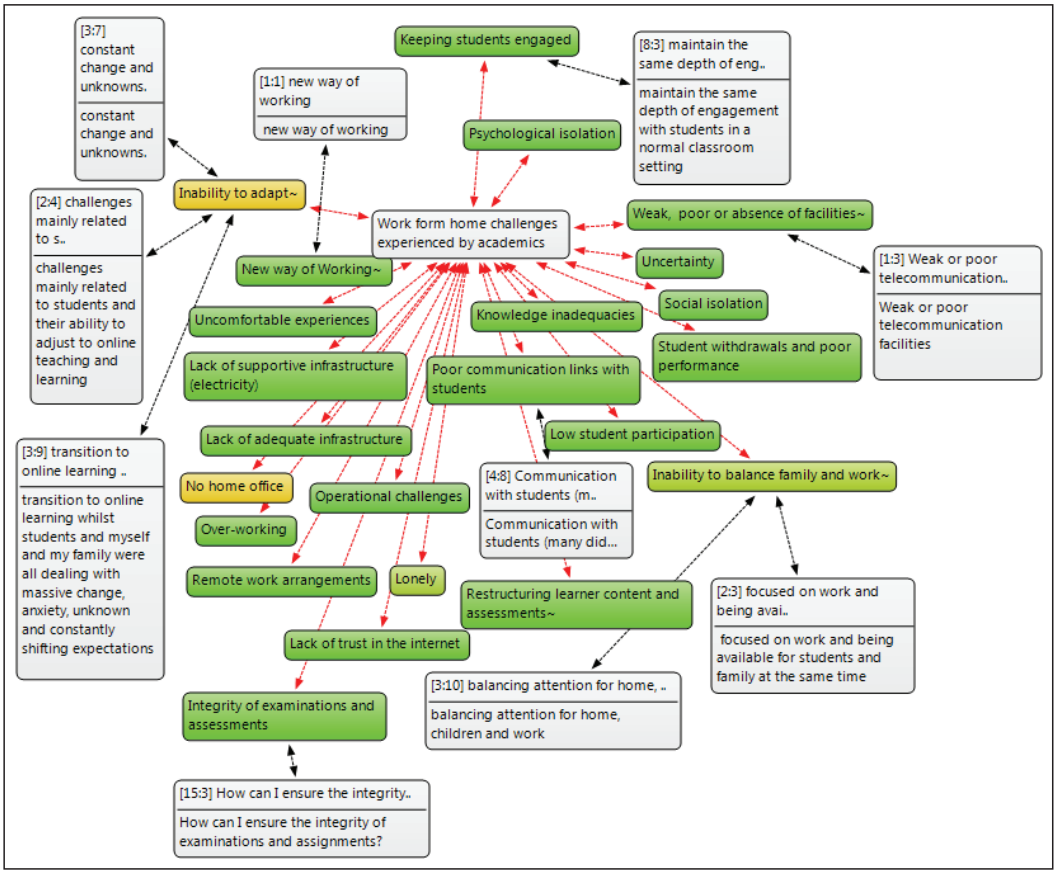

Figure 3. Challenges to virtualisation that were faced by academics.

The breaking of traditional modes of work, disruption of established systems, and removal of bureaucracies in organisations have affected employees in institutions in many ways. Four main challenges, namely: (1) inability to adapt, (2) lack of a home office, (3) loneliness and isolation as well as (4) inability to balance family and work, dominated the challenges faced by the academics. These four were dominant across the respondents. In particular, the change to virtual work arrangements was described by some respondents as 'novel and characterised by constant change.' This view is widely supported in the literature [60,61]. There is a need for strengthening organisational learning [62,63].

4.4.1. Inability to Adapt

This theme was related to inertia and the general tendency to maintain traditional working arrangements. One respondent explained that:

> *"I will not say I have fully adjusted, but I am gradually beginning to realise that it is a new normal that may remain with us for a long time."*

It appears that many academics remained stuck in the old ways of work that existed prior to the pandemic. This view shows the dilemma of adjustment and the inability to respond to the change on time. It was also indicated by some respondents that:

> *"the need to change during times of psychological stress and anxiety associated with the pandemic was a challenge."*

4.4.2. Lack of a Home Office

This challenge is related to the infrastructure required for the performance of the academic job. The office and its supporting infrastructure were concerned for many academics. One respondent expressed that:

> *"I am not blessed with a home office and initially for several months worked from my dining room table (the chairs were not made for such usage). Recently I had since shifted things to my second bedroom (having had to first get rid of some of the clutter there) I am currently on the hunt for a comfortable office chair!"*

The quote above shows the dilemma that many respondents expressed regarding office space. The challenge for an office arose because working from home emerged from a crisis and was not planned for. Many academics were not prepared for it.

4.4.3. Loneliness and Isolation

Respondents expressed the feeling that working from home resulted in the breaking up of personalised interactions associated with the physical workplace. As reflected by one respondent,

> *"I missed interacting with my students face-to-face on campus. I also missed the use of the vast amount of research resources physically present on campus."*

Feelings of loneliness arose concerning virtual meetings and virtual interaction with students. Respondents felt that working from home did not cultivate cordial relations with colleagues and increased the social distance among academics and students.

4.4.4. Inability to Balance Family and Work

A considerable number of respondents felt that "it was sometimes a challenge with managing home life with children and online schooling." One respondent explained that:

> *"...an initial challenge was balancing attention for home, children, and work. I've had to find patterns that mean that sometimes work slacks, and sometimes my family is negatively impacted. With my kids, we relied heavily on screentime to be able to get space to work."*

Balancing work and home distractions psychologically drained the academics and resulted in significant inconveniences in many situations. Some respondents indicated that it was a challenge to balance home activities and work activities, and they faced distractions relating to the need to work and perform home chores. In addition, there were indications that the family members were also a significant source of distractions as they also required attention.

4.5. Improving Satisfaction with Work from Home

Regarding work from home arrangements, the respondents provided basic strategies that can be employed to ensure satisfactory and successful work from home arrangements. Figure 4 is a network diagram that shows the various work from home strategies that emerged from the study.

Figure 4 highlights issues such as improving interactional capabilities, accepting the new normal, ICT training, providing resources, offering psychosocial support, coaching, enhancing community learning, empowering students, and adopting hybrid/blended teaching modes. The issues emerging from Figure 4 are somewhat related to Respondent 3's sentiments that "if academics are expected to maintain a virtual office, then the institutions should provide the tools for trade". There was an impression that HEIs should provide widespread support for virtual arrangements, including providing ICT tools and training required. It was also observed that both academics and students needed some form of support, requiring digital literacy enhancement and digital skills empowerment. On the other hand, academics needed support and resources to strengthen their psychological willingness to change online systems. These findings support those of other researchers,

including [64,65], who have observed the need to strengthen mechanisms for effective virtual HEIs. Mukute, Francis, Burt, and de Souza [66] conducted a higher education study during the COVID-19 period and recommended the importance of context-based virtual strategies and the strengthening of online and community-based learning strategies.

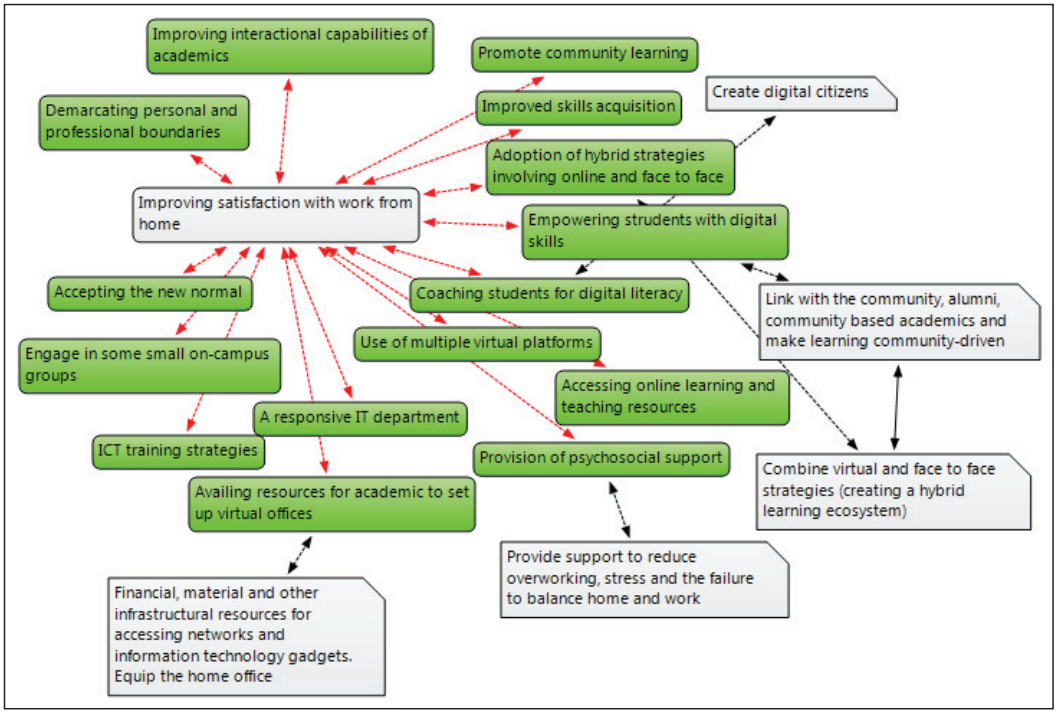

Figure 4. Strategies for successful work from home arrangements.

5. Implications

5.1. Practical Implications

Despite the benefits of working from home (as in offering flexibility to employees) [14,34] the arrangement has equally been identified as detrimental to work–family balancing [36]. The findings of our study suggest that some of the participants have indicated both negative and positive experiences of working from home. What this suggests is that remote working conditions has the potential to reduce academics' productivity. We advance this notion bearing in mind that "juggling personal and job responsibilities while at home and working alongside family members or other cohabitants who also must collocate and manage their own obligations" [11] may lead to more work-related stress and poor personal and domestic relations.

5.2. Theoretical Implications

There is a growing research interest in how academics cope during a pandemic such as COVID-19. For the most part, this study adds to the growing literature on how to be productive during a pandemic. In the drive to understand how to be productive, we promote Figure 1 as a theoretical instrument for analysing WFH conditions that have been drawn from several sources. In this connection, our findings show that the degree of effect of WFH is diverse, thus allowing for an interrogation of future studies from the perspectives of the analytical framework of WFH.

6. Conclusions, Recommendations, and Limitations

As HEIs worldwide continue to grapple with the impact of the COVID-19 pandemic on their established ways of operation, many institutions increasingly turn to research recommendations and guidelines from commissioned reports to find best operational practices during these uncertain times. However, as Mukute et al. [66] stressed in their recommendation, it is crucial to contextualise strategies prescribed for HEIs during the COVID-19 pandemic. The analysis of our findings suggests a similarity of experiences between staff at different HEIs in South Africa. For example, the staff experienced discomfort with the switch to remote working and how it impacts their personal lives and health.

Though the participants came from different HEIs, the similarities of lived experiences were welcomed because they enabled us to streamline our interpretation of the challenges faced with WFH for staff from HEIs. Even though the challenges are different in terms of individual experiences, they still fall into broader categories, such as the different layers of challenges in adapting to working from home. For some, these challenges could lead to serious mental health setbacks. The same could be said regarding the recommendations that emerged from the participants organically. They were mainly similar in terms of the suggestions on the types of support that HEIs need to provide to improve their experiences of WFH.

It can be argued that many academics have found 'peace' with working from home. For this group of academics, it may be prudent for the employer to consider a formal WFH guideline. As Roddy and Miglani [67] observed, it may be worthwhile to introduce a hybrid model that permits millennials' work–life balance and enjoyment of work. There are views (such as [53,54]) that such an initiative may bring about financial, reputational, and legal implications. Firstly, those who choose to work from home need to be technologically ready. In this case, the question is: should the HEI provide the necessary technology or would the academic who chooses to work from home bear the cost of WFH infrastructure? The current labour legislation may need to be reviewed to cater for extended home working regarding employee relations. There is also the likelihood that the employer suffers reputational risk if an academic cannot attend to students timeously.

A major limitation of this study is related to the population and methodological approach. Considering the size of the sample, we suspect that the sensitive and personal nature of the questions may have discouraged many academics from participating, especially because the invitation to participate was from the dean of their faculty. In South Africa, the Protection of Personal Information Act (POPIA) disallows the use of personal information without authorisation. During the planning stages of this study, we considered the Commerce Deans Association as a legitimate avenue for data collection. We failed to recognise that using the deans to invite participants, while facilitating the researchers' access to the institutions, may not evoke large participation owing to the sensitive and personal nature of the questions. Although a convenience sample, in this case collected among colleagues may produce biased results, the results of this study reflect both positive and critical approaches towards the WFH arrangements. A future study may seek other avenues for data collection. Regarding the methodological approach, we believe that a larger sample using quantitative and qualitative approaches, including a robust analytical method, would enrich the understanding of staff experiences with WFH during COVID-19, thus providing a more nuanced recommendation for HEIs.

Before COVID-19, most South African universities operated on 'contact' basis. The transition to online/hybrid teaching and learning upset the traditional mode of work. The early days of lockdown and social distancing regulations necessitated a rethink of the nature and conditions of work including WFH. Moving forward and in adjusting to the 'new normal', higher education institutions must not only redesign their curriculum but also reconsider its cost-cutting measures, because WFH is effective with items such as laptop computers, wifi, data, etc. In addition to providing adequate working equipment suitable for WFH, we also recommend that HEIs develop a customised survey dependent

on factors relevant to individual institutions' context to ascertain their staff experiences of WFH.

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Appendix A

Good day Dr.

I hope you are doing well.

I'm approaching you with a request because I know you. We have always interacted.

Since last year, academic activities have experienced a new 'normal' owing to COVID-19. We have had to adjust the way we did the noble job of teaching. Working virtually is something most of us are not used to especially those of us who are in contact universities and colleges. Because of this, I believe a paper that chronicles all our experiences as academics and what we suggest as likely ways of dealing with it for now and in the future is instructive. As you can imagine, working remotely is likely going to be the way to conduct academic projects moving forward. Mainstream media including academic periodicals is replete with how to manage students—teaching, etc.—and the impact of COVID-19 on our daily lives—work, etc. For now higher education institutions are grappling with how to manage this new normal. In delivering the academic project attention should be equally be paid to the academics. And so this brings me to the reason I'm reaching out to you.

I'm surveying what I call managing in times of uncertainty (with a specific interest in academics i.e., lecturers) and I believe that given your enormous experience as an academic you'd be able to offer sincere responses to the questions below. Could I ask that you return this to me by the 27th of May 2021?

Thank you so much.

Chux

1. How did you feel about working from home? a. Was there a home office?
2. What challenges did you foresee and how have you tried to surmount them?
3. How are things going right now? Have you fully adjusted?
4. How do you see yourself fitting in moving forward?
5. In every aspect of working virtually as an academic, what do you propose is necessary to ensure that you can run with the idea of a virtual office?
6. Any other thoughts you may have on this mammoth and seemingly difficulty way of working.

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The Importance of Self-Leadership Strategies and Psychological Safety for Well-Being in the Context of Enforced Remote Work

Kirsi Sjöblom *, Soile Juutinen and Anne Mäkikangas

Work Research Centre, Tampere University, 33014 Tampere, Finland; soile.juutinen@tuni.fi (S.J.); anne.makikangas@tuni.fi (A.M.)
* Correspondence: kirsi.sjoblom@tuni.fi

Abstract: This study examines the relationship between self-leadership strategies and occupational well-being and whether psychological safety has moderated these relationships in the context of enforced remote work caused by COVID-19. Altogether, 2493 higher education employees, most of whom were working entirely remotely due to the pandemic, responded to an electronic survey in May 2021. Hierarchical multiple linear regression analyses were conducted as the main method of analysis. The results showed that goal-oriented and well-being-related self-leadership strategies as well as psychological safety were positively related to meaningfulness of work and negatively to job burnout. Psychological safety moderated the relation between goal-oriented self-leadership strategies and meaningfulness of work. The study presents much-needed novel knowledge about self-leadership and psychological safety in the context of remote work and sheds light on the interrelatedness between self-leadership strategies, psychological safety, and occupational well-being. It presents a novel category of well-being-related self-leadership strategies and contributes to the measurement of both self-leadership and psychological safety. In order to both enable sufficient well-being and facilitate flourishing at work, it is imperative to support employees in learning and applying diverse self-leadership strategies as well as ensure psychological safety at workplace, especially in post-pandemic multi-locational work.

Keywords: self-leadership; psychological safety; COVID-19; remote work; multi-locational work; well-being; meaningfulness; burnout; work and organizational psychology; occupational health

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1. Introduction

As a large and ever-growing proportion of work is multi-locational, knowledge-intensive, and highly autonomous in nature, individual employees' proactive skills in leading and managing their own work become crucial [1,2]. This has become particularly evident along with the dramatic increase in remote work during the COVID-19 pandemic, but the phenomenon itself is not limited to these exceptional conditions but rather was already there [3,4]. It has been predicted that flexible and distributed working arrangements will also continue to be a much-used form of working in the post-pandemic era [5]. Therefore, there is an evident need for a better understanding of self-leadership and its prerequisites in multi-locational work.

This study examines self-leadership in the conditions of enforced remote work during the COVID-19 pandemic, during which a large proportion of knowledge workers were working remotely full-time. Remote work refers to work taking place outside the main office [2]. Many of the studies from the pandemic era have used either this term or teleworking [6,7], perhaps because in the exceptional conditions, a significant proportion of the work has been carried out at home rather than at multiple locations. More broadly, multi-locational work refers to work that is carried out in many different locations, such as office, home, public spaces, and mobile locations such as cars or trains, and it was fairly common even before the pandemic [8].

This study contributes to the current knowledge on self-leadership in three crucial ways. First, even though self-leadership is particularly important in remote work [3,9,10], and the remote working conditions may challenge productivity in many ways [11], research in this context is sparse. There exists evidence showing that employees engage in self-goal setting more often when working at home, which leads to higher job satisfaction [3]. These findings demonstrate the accentuated need for both self-leadership in remote work and for further research on the topic.

Second, even though self-leadership has traditionally included several different categories of self-leadership strategies, they have not included strategies related to *well-being*. Employee well-being and appropriate balance between effort and recovery is a focal challenge in today's working life [2,12–17]. Along with the increasingly autonomous role of employees, in remote working in particular, this constitutes a novel area needed in the self-leadership literature. In this study, we focus on two essential dimensions of self-leadership that support both productive and sustainable work: goal-oriented and well-being-related self-leadership strategies, defined in detail in the section *Self-leadership and occupational well-being*. We examine the relations between these two categories of self-leadership and the well-being outcomes of interest, namely meaningfulness of work and burnout.

Third, even though research on self-leadership has been active since the 1980s, the prerequisites for effective self-leadership are yet to be defined more closely. There is established knowledge on several determinants of self-leadership, but the role of psychological safety in facilitating it has not been researched. Psychological safety essentially supports a culture of initiative and active roles for individuals at the workplace [18] and has been shown to play a central role in many positive workplace behaviors [19]. Therefore, there is reason to believe that it may create a fruitful environment for proactive self-leadership behavior as well and plausibly moderate the relationship between individual employees' self-leadership behavior and workplace well-being (meaningfulness of work, burnout)—mechanisms examined in the current study.

In the following, we first introduce the concept of self-leadership and also review the relevant existing research on it. Then, we proceed to elaborate on the topic of psychological safety and on the grounds for it functioning as a facilitator of occupational well-being and a possible moderator between self-leadership and well-being.

1.1. Self-Leadership and Occupational Well-Being

Self-leadership is defined as a process of self-influence through which people achieve the self-direction and self-motivation necessary to perform [20,21]. It consists of specific behavioral and cognitive strategies designed to positively influence personal effectiveness [22]. Different kinds of self-leadership strategies have often been grouped into behavior-focused strategies, natural reward strategies, and constructive thought-pattern strategies [21–23].

Behavior-focused self-leadership strategies strive to heighten an individual's self-awareness in order to facilitate behavior management, especially regarding necessary but unpleasant tasks [21]. They include self-observation, self-goal-setting, self-reward, self-punishment, and self-cueing. Behavior-focused strategies are aimed to encourage positive, desirable behaviors that lead to successful outcomes and to suppress negative, undesirable behaviors that lead to unsuccessful outcomes [22].

Natural reward self-leadership strategies focus on creating situations in which one is motivated or rewarded by inherently enjoyable aspects of the activity [21,22]. This can be done by either building more pleasant and enjoyable features into the task itself so that it becomes naturally rewarding, or by directing attention away from the unpleasant aspects of a task and focusing it on the task's inherently rewarding aspects. Natural reward strategies aim to create experiences of competence and self-determination, which in turn energize performance-enhancing behaviors [22].

Finally, constructive-thought-pattern strategies are about facilitating the formation of thought patterns and ways of thinking that can positively impact performance [21,24,25]. They include positive self-talk; mental imagery, such as envisioning a successful perfor-

mance of an activity in advance of the actual performance; and identifying and replacing dysfunctional beliefs and assumptions with more constructive ones [22].

In this study, we focus on two essential dimensions of self-leadership that are assumed to support productive, sustainable work: goal-oriented self-leadership strategies and well-being-related self-leadership strategies. Goal-oriented self-leadership strategies include behavior-focused strategies such as self-goal setting (setting clear goals for one's work performance), self-observation (monitoring one's progress), and self-leading one's work and focus on a practical level (identifying, planning and scheduling one's primary tasks). Earlier research shows that goal-oriented leadership, that is, setting challenging and specific goals, can significantly enhance individual performance [26,27] and that in order for the process of achieving goals to progress well, self-observation is necessary in monitoring one's own progress in the task pursued and choosing effective ways to proceed [21].

Furthermore, as a specific feature of today's multi-locational and knowledge-intensive work, in order for it to be effective and sustainable, it essentially requires managing mental workload factors [2,28]. Mental overload and stress are a common challenge among employees, and certain aspects of novel work environments have been found to potentially risk employee health and well-being [2,14,29,30]. It is crucial for the effectiveness of employees to be able to maintain and replenish their mental and physical resources available for work on a daily basis. Based on these perspectives, we view well-being-related self-leadership strategies as an integral part of essential self-leadership practices and suggest that it is necessary to include them to update the concept to better meet the needs of today's working life. In this study, well-being-related self-leadership strategies include one's practices related to vigor and recovery, such as taking care of physical well-being and sufficient recovery at work from the perspective of ergonomics, exercise, breaks, and nutrition, as well as ensuring sufficient rest daily.

Research on self-leadership has focused specifically on different kinds of organizational phenomena and performance outcomes, such as self-leading teams, empowering leadership, and goal performance [22]. Self-leadership has also been studied as an antecedent of occupational well-being: it has been found to be positively related to work engagement, self-efficacy, subjective well-being, and job satisfaction [31–33] and negatively to stress, anxiety, burnout, and workaholism [34–36]. However, there is so far only one study looking into the direct relationship between self-leadership and burnout [34], and there are no studies scrutinizing the relationship between self-leadership and meaningfulness of work. In this respect, the present study makes an unequivocally novel contribution to the field of self-leadership research.

The concept of self-leadership itself partly overlaps with other concepts relevant to research into well-being. Many self-leadership strategies are founded upon other established theories and concepts of motivation and self-influence, such as intrinsic motivation and self-regulation [22,37,38]. Similarly, the general self-determined nature of self-leadership behavior is likely to be linked to autonomous motivation, which, according to a large body of research, is known to be a strong antecedent of various well-being outcomes [22,38–40].

In addition to the general self-determined and well-being supportive nature of self-leadership behavior, utilizing goal-oriented self-leadership strategies, and regularly identifying one's most essential tasks and best practices in approaching them is likely to lead to more successful outcomes at work, to a better awareness of the importance of one's work, and to an appropriate input to one's work, as opposed to reacting in a more passive way to the many and varying expectations and stimuli of the environment on a daily basis. Utilizing well-being-related strategies, on the other hand, is essential for sufficient recovery at work and, as such, prevents an excessively consuming experience of work and is also likely to support experiences of enjoying one's work. These aspects are likely to be linked to the well-being outcomes of this study, namely burnout and meaningfulness of work. Burnout, representing a negative well-being outcome in the study, is defined as a multi-dimensional stress syndrome consisting of mental fatigue (exhaustion); negative, cynical attitudes and feelings related to one's work (cynicism); and a tendency to evaluate oneself

negatively with regard to one's work and professional competence (reduced personal efficacy) [41]. Meaningfulness, representing a positive well-being outcome in the study, is defined as the value of a work goal or purpose, judged in relation to an individual's own ideals or standards [42,43]. It has been argued that individuals have a primary motive to seek meaning in their work [44] and that work experienced as meaningful facilitates both personal growth and motivation for work [45].

Based on the aforementioned aspects on relations between self-leadership and well-being, we expected that:

Hypothesis 1. *Goal-oriented self-leadership strategies are positively related to meaningfulness.*

Hypothesis 2. *Goal-oriented self-leadership strategies are negatively related to burnout.*

Hypothesis 3. *Well-being-related self-leadership strategies are positively related to meaningfulness.*

Hypothesis 4. *Well-being-related self-leadership strategies are negatively related to burnout.*

1.2. Psychological Safety as a Facilitator and Moderator between Self-Leadership and Occupational Well-Being

Today's working life requires individual employees to be in an active role, to speak up, to initiate new ideas, and to constantly learn what they do not already know; however, in a world of complex problems, this usually involves the risk of making mistakes and being imperfect, possibly appearing in an unfavorable light in the eyes of others. This is where psychological safety becomes focal: it enables employees to "feel safe at work in order to grow, learn, contribute, and perform effectively in a rapidly changing world" [18]. Furthermore, the increasingly common remote work conditions call for research on psychological safety in this specific context, as it is likely to create specific needs and challenges compared to the more traditional working conditions in which earlier research has been conducted. Therefore, we examine the role of psychological safety in self-leadership behavior and well-being outcomes. Earlier research shows that both psychological safety and self-leadership are linked to leadership style and team characteristics as well as to various well-being outcomes [19,22,46,47], but the interrelations between these concepts have so far received little attention.

Initially, psychological safety was identified as a cognitive state necessary for learning and change to take place and essential for making people feel secure and capable of changing their behavior in response to shifting organizational challenges [48], and it was later defined as individuals' perceptions as to whether they are comfortable and willing to employ and express themselves without fear of negative consequences to self-image, status, or career [49]. Currently, the most well-known definition of psychological safety is the more recent one by Edmondson [50], defining psychological safety as a shared belief held by members of a team that the team is safe for interpersonal risk-taking. It is measured by a scale that captures perceptions as to whether team members believe that others will not reject them for being themselves, team members care about each other as individuals, have positive intentions to one another, and respect the competence of others [19,50].

In this study, we focused on the psychological safety of the immediate work community rather than that of the team, as in today's working life it is common for individuals to be working simultaneously in several different teams. In our operationalization of the psychological safety of the immediate work community, in addition to focal elements from Edmondson's team psychological safety scale, we also included aspects explicitly emphasizing the culture regarding mistakes and failures, as well as immediate work community members' attentiveness to each other's well-being.

Psychological safety has been shown to be positively related to work engagement [46,50–52] and positive job attitudes such as commitment and job satisfaction [46,49,53,54]. Very few studies have traced the direct relationship between psychological safety and the well-being outcomes of this study, namely burnout and meaningfulness. Psychological safety has

been found to be negatively related to the burnout dimension of emotional exhaustion as well as depersonalization [55]. It has also been shown to mediate the relationship between leadership style and burnout [56] and psychological distress [57]. A team-focused burnout intervention approach that focused on encouraging communication and psychological safety resulted in improved teamwork and reduced burnout [58]. Thus, there is preliminary evidence of an inverse relationship between burnout and psychological safety, although more comprehensive research on the topic and the exact nature of the relationship is still needed.

Meaningfulness, on the other hand, has mostly been studied as a parallel construct to psychological safety; for example, the early study by Kahn [49] already described the three psychological conditions of meaningfulness, psychological safety, and availability, relating to how people engage or disengage at work. Many subsequent studies have looked at meaningfulness, psychological safety, and availability as determinants of engagement or other working life phenomena of interest, either as direct antecedents or as mediators, but not at their interrelations [42,59–61].

In the present study, we examine psychological safety, both as a direct antecedent of meaningfulness and burnout and as a potential moderator of the relationship between employees' self-leadership behavior and the well-being outcomes. Psychological safety is focal in supporting individuals' active role at the workplace, and it has shown to be related to proactive workplace behaviors such as learning behavior, creativity, and innovation [19]. Therefore, it may also create a supportive environment for proactive self-leadership behavior and in fact even be a boundary condition for this kind of behavior to take place. As a similar finding, research has shown that a leadership style that is empowering and facilitates individual and team self-leadership is usually a necessary component of effective self-leadership in practice [47,62–64]. This overlaps with psychological safety: both empowering leadership and psychological safety give employees important indications of trust in their abilities and judgement as well as encouragement in being in an active and independent role, which is likely to be of focal importance for self-leadership behavior to take place. Based on these findings, we expected that:

Hypothesis 5. *Psychological safety is positively related to meaningfulness.*

Hypothesis 6. *Psychological safety is negatively related to burnout.*

Hypothesis 7. *Psychological safety moderates the positive relation between goal-oriented and well-being-related self-leadership strategies and meaningfulness. That is, the relationship between self-leadership strategies and meaningfulness is stronger in the case of high (vs. low) psychological safety.*

Hypothesis 8. *Psychological safety moderates the negative relation between goal-oriented and well-being-related self-leadership strategies and burnout. That is, the negative relationship between self-leadership strategies and burnout is stronger in the case of high (vs. low) psychological safety.*

The conceptual model of the study is presented in Figure 1.

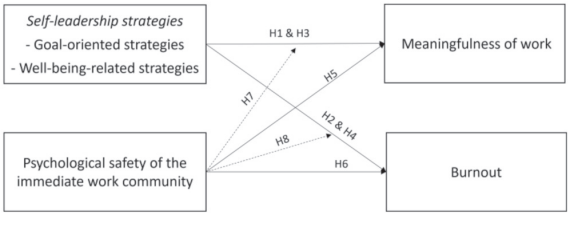

Figure 1. Conceptual model of the study and hypotheses tested. Dashed lines indicate the moderator effects hypothesized.

2. Method

2.1. Participants and Procedures

The data used in this study were collected from the employees of three Finnish universities as a part of the research project "Safely remotely—occupational well-being and its management in telework", funded by the Finnish Work Environment Fund. The project examines higher education employees' experiences of COVID-19-induced remote work, focusing especially on leadership practices and well-being.

The electronic LimeSurvey tool was used to collect the data, and the employees were informed about the survey before it was sent to them. Invitations to participate in the survey and two reminders were sent to the work email addresses of 12120 employees through mailing lists. The survey was available from 12 April to 3 May 2021. Altogether 3543 employees participated in the survey; the response rate was 29%.

The present sample (n = 2493) consists of members of teaching and research staff (including doctoral researchers and people working under a resource agreement) and administrative and support staff who were of female or male gender, provided their age, and answered all items used in the analyses. Research assistants and management-level staff were excluded from the data in order to form homogeneous groups in terms of job descriptions.

Of the participants, 59.5% were teaching and research staff, and 40.5% were administrative and support staff. The average age of the participants was 45.3 years (SD = 10.9), and 70% were women. The most common levels of education were master's degree (43%) and doctoral degree (39%). Most participants (71%) worked entirely remotely at the time of the survey.

2.2. Measures

Goal-oriented self-leadership strategies were measured using three items. Two of these were drawn from the Revised Self-Leadership Questionnaire (RSLQ) [65], with minor changes in the phrasing of the items: "I have established specific goals for my own performance" and "I have monitored my progress at work", and one was from the Self-Regulatory Skills in Multi-Locational Knowledge Work Questionnaire [66]: "I have planned and scheduled my primary weekly tasks". The participants indicated their level of agreement with these statements on a 5-point scale (1 = Not at all, 5 = Very much). Exploratory factor analysis supported a one-factor solution, which explained 70% of the variation. Factor loadings varied between 0.67 and 0.83, and the Cronbach's alpha for the scale was 0.78.

Well-being-related self-leadership strategies were measured through three items developed by Sjöblom and colleagues [66], with minor linguistic changes in the phrasing of the items: "I have taken care of maintaining healthy vigor for work during the working day", "I have taken care of sufficient rest in my everyday life", and "I have taken care of my physical well-being and sufficient recovery at work (e.g., ergonomics, exercise, breaks, nutrition)". The items were assessed on a 5-point scale (1 = Not at all, 5 = Very much). Exploratory factor analysis supported a one-factor solution, which explained 70% of the variation. Factor loadings varied between 0.65 and 0.83, and the Cronbach's alpha for the scale was 0.78.

Psychological safety of the immediate work community was measured using six items. Three of these were taken from the Team Learning and Psychological Safety Survey [50], with minor modifications, i.e., including attitudes to making mistakes and trying out new ways: "The atmosphere in our work community has allowed the courage to deal with work-related problems and mistakes", "Working with the members of my work community, my unique skills and talents have been valued and utilized", and "It has been safe to take risks and do things in new ways in our work community". One item was from the Danish Psychosocial Work Environment Questionnaire (DPQ) [67]: "The members of our work community have been attentive to each other's well-being", and two were developed specifically for the project: "In our work community, we have not had to fear failure", and "In our work community, mistakes have been regarded as a natural part of work and learning new things". The items were assessed on a 5-point scale (1 = Not at all,

5 = Very much). The items formed a clear one-factor structure in the factor analysis. This single factor explained 66% of the variation. Factor loadings were high, with the lowest being 0.67 and the highest 0.85. The Cronbach's alpha was 0.90.

Meaningfulness was measured with four items drawn from May et al. [42,68–71]: "The work I do on this job has been meaningful to me", "The work I do on this job has been worthwhile", "I have felt that the work I do on my job is valuable", and "The work I do on this job has been very important to me". The participants evaluated their agreement with each statement on a 5-point scale (1 = Strongly disagree, 5 = Strongly agree). Exploratory factor analysis supported a one-factor solution, which explained 79% of the variation. Factor loadings varied between 0.78 and 0.91, and the Cronbach's alpha for the scale was 0.91.

Burnout was measured with four items taken from the Burnout Assessment Tool (BAT) [72]: "At work, I have felt unable to control my emotions", "At work, I have felt mentally exhausted", "I have struggled to find any enthusiasm for my work", and "At work, I have had trouble concentrating". The items were assessed on a 5-point scale (1 = Never, 5 = Always). Exploratory factor analysis supported a one-factor solution, which explained 58% of the variation. Factor loadings varied between 0.45 and 0.77, and the Cronbach's alpha for the scale was 0.75.

Age (continuous variable), gender (1 = men, 2 = women), education (1 = Secondary school graduate or equivalent, 2 = Bachelor's degree, 3 = Master's Degree, 4 = Licentiate/Doctorate), job position (1 = Teaching and research personnel, 2 = Support services and faculty personnel), and previous remote work experience (1 = Not at all; 2 = Less than one day per week; 3 = 1–2 days per week; 4 = 3–4 days per week; 5 = All the time or almost all the time) were used as background variables.

2.3. Data Analysis

Hierarchical multiple linear regression analyses were used as the main method of analysis to examine the main effects of self-leadership and psychological safety on well-being outcomes (meaningfulness of work and job burnout), as well as a possible moderating effect of psychological safety on self-leadership and well-being outcomes [73]. The independent variables were regressed on the antecedent sets in five steps as follows: (1) background variables (age, gender, education, job position, previous remote work experience); (2) goal-oriented self-leadership strategies; (3) well-being-related self-leadership strategies; (4) psychological safety of the immediate work community; and (5) the interaction terms between the two dimensions of self-leadership strategies and psychological safety of the immediate work community. The magnitude of R^2 change at each step of the analysis was used to determine the variance explained by each antecedent or set of antecedents. The standardized beta values reported were used to determine the effect of each variable on meaningfulness and burnout. Analyses were conducted using IBM SPSS Statistics 26. The data were checked for basic assumptions of regression analysis and multicollinearity.

3. Results

3.1. Descriptive Statistics

The means, standard deviations, and correlations of all the study variables are presented in Table 1. The correlations between the study variables were in the expected direction: both self-leadership dimensions and as psychological safety correlated positively and statistically significantly with the meaningfulness of work ($r = 0.27-0.40$, $p < 0.001$) and negatively and statistically significantly with burnout ($r = -0.32-0.41$, $p < 0.001$). The two self-leadership dimensions and psychological safety correlated moderately with each other ($r = 0.22-0.34$, $p < 0.001$).

Table 1. Descriptive Information on the Study Variables (N = 2493).

Variable	*M*/%	*SD*	α	1	2	3	4	5	6	7	8	9
(1) Age	44.70	11.25	–									
(2) Gender [a]	30.40 [e]	0.46	–	−0.02								
(3) Education [b]	3.11	0.89	–	−0.01	−0.16 ***							
(4) Job position [c]	59.1 [f]	0.49	–	0.18 ***	0.22 ***	−0.62 ***						
(5) Remote work experience [d]	2.14	1.13	–	0.01	−0.02	0.20 ***	−0.24 ***					
(6) Goal-oriented s−l	3.68	0.74	0.78	0.10 ***	0.08 ***	0.09 ***	−0.05 **	0.14 ***				
(7) Well-being-related s−l	3.31	0.79	0.78	0.11 ***	0.01	−0.07 ***	0.09 ***	0.07 ***	0.34 ***			
(8) Psychological safety	3.59	0.83	0.90	−0.04 *	−0.07 ***	−0.04 *	0.05 **	0.03	0.22 ***	0.23 ***		
(9) Meaningfulness	3.96	0.84	0.91	0.16 ***	−0.01	0.02	−0.03 *	0.12 ***	0.39 ***	0.27 ***	0.40 ***	
(10) Job burnout	2.54	0.69	0.75	−0.19 ***	0.05 **	0.09 ***	−0.11 ***	−0.02	−0.32 ***	−0.41 ***	−0.35 ***	−0.57 ***

Note. [a] Gender: 1 = men, 2 = women; [b] Education: 1 = Secondary school graduate or equivalent, 2 = Bachelor's degree, 3 = Master's Degree, 4 = Licentiate/Doctorate; [c] Job position: 1 = Teaching and research personnel, 2 = Support services and faculty personnel; [d] Remote work experience preceding the pandemic: 1 = Not at all; 2 = Less than one day per week; 3 = 1–2 days per week; 4 = 3–4 days per week; 5 = All the time or almost all the time. [e] = percentage of men among participants, [f] = percentage of participants belonging to teaching and research personnel job position group. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Of the background characteristics, age was positively and statistically significantly related to meaningfulness ($r = 0.16$, $p < 0.001$) and negatively to burnout ($r = -0.19$, $p < 0.001$). That is, older employees experienced more meaningfulness and less burnout than younger employees. Previous experience of remote work correlated positively with meaningfulness of work ($r = 0.12$, $p < 0.001$) but had no statistically significant correlation with burnout. Furthermore, teaching and research personnel experienced more meaningfulness ($r = -0.03$, $p < 0.05$) but also more burnout ($r = -0.11$, $p < 0.001$) than support service and faculty personnel. Women and employees with a higher degree experienced more burnout than men ($r = 0.05$, $p < 0.01$) and participants with a lower degree ($r = 0.09$, $p < 0.001$).

We also tested for any differences with regard to the variables studied between members of teaching and research staff and administrative and support staff. One-way ANOVA showed that administrative and support staff reported lower level of goal-oriented self-leadership, $F(1, 2491) = 5.780$, $p < 0.05$, and job burnout, $F(1, 2491) = 29.665$, $p < 0.001$) than did teaching and research staff. Moreover, administrative and support staff reported a higher level of well-being-related self-leadership strategies, $F(1, 2491) = 19.084$, $p < 0.001$), and psychological safety, $F(1, 2491) = 6.377$, $p < 0.05$), than did teaching and research staff.

3.2. Results of Regression Analyses

The results of the multiple regression analyses are presented in Table 2. After controlling for the effects of the background variables (Step 1), entering goal-oriented self-leadership strategies (Step 2) and well-being-related self-leadership strategies (Step 3) revealed support for the hypothesized main effects. Both self-leadership dimensions were directly and positively related to meaningfulness of work ($\beta = 0.10-0.26$, $p < 0.001$) and negatively related to job burnout ($\beta = -0.17-0.27$, $p < 0.001$), supporting Hypotheses 1–4. Similarly, psychological safety of the immediate work community (Step 4) was positively related to meaningfulness of work ($\beta = 0.33$, $p < 0.001$) and negatively related to job burnout ($\beta = -0.25$, $p < 0.001$), supporting Hypotheses 5 and 6. In total, antecedents explained one-third of the studied outcomes.

The interaction terms at Step 5 revealed that only one interaction was statistically significant, namely the interaction between goal-oriented self-leadership strategies and psychological safety on the meaningfulness of work ($\beta = -0.06$, $p < 0.01$). The interaction term between well-being-related self-leadership strategies and psychological safety turned out to be nonsignificant, and no significant interactions were observed for job burnout. Therefore, our Hypothesis 7 was only partly supported, and Hypothesis 8 was not supported.

Table 2. Results of Multiple Regression Analyses with Meaningfulness and Job Burnout as Dependent Variables.

Variable	Meaningfulness					Job Burnout				
	B	*SE B*	β	ΔR^2	R^2	*B*	*SE B*	β	ΔR^2	R^2
Step 1: Background variables				0.039 ***	0.039 ***				0.050 ***	0.050 ***
Age	0.01	0.00	0.15 ***			−0.01	0.00	−0.15 ***		
Gender [a]	0.01	0.03	0.01			0.09	0.03	0.06 **		
Education [b]	−0.04	0.02	−0.04			0.05	0.02	0.06 **		
Job position [c]	−0.15	0.04	−0.09 ***							
Remote work experience [d]	0.04	0.01	0.05 **							
Step 2: Goal-oriented self-leadership	0.30	0.02	0.26 ***	0.134 ***	0.173 ***	−0.16	0.02	−0.17 ***	0.102 ***	0.152 ***
Step 3: Well-being-related self-leadership	0.10	0.02	0.10 ***	0.019 ***	0.192 ***	−0.24	0.02	−0.27 ***	0.087 ***	0.239 ***
Step 4: Psychological safety	0.34	0.02	0.33 ***	0.098 ***	0.290 ***	−0.21	0.02	−0.25 ***	0.057 ***	0.296 ***
Step 5: Interaction terms				0.003 *	0.293 ***				0.001	0.296 ***
Goal-oriented s-l ∗ Ps. safety	−0.04	0.02	−0.06 **			0.02	0.01	0.03		
Well-being-related s-l ∗ Ps. safety	0.01	0.02	0.02			−0.01	0.01	−0.01		

Note. [a] Gender: 1 = men, 2 = women; [b] Education: 1 = Secondary school graduate or equivalent, 2 = Bachelor's degree, 3 = Master's Degree, 4 = Licentiate/Doctorate; [c] Job position: 1 = Teaching and research personnel, 2 = Support services and faculty personnel; [d] Remote work experience preceding the pandemic: 1 = Not at all; 2 = Less than one day per week; 3 = 1–2 days per week; 4 = 3–4 days per week; 5 = All the time or almost all the time. *B* = unstandardized beta-coefficient from the final step, *SE B* = standard error of the unstandardized beta-coefficient, β = standardized beta-coefficient from the final step, ΔR^2 = change in explanation rate in each step, and R^2 = explanation rate. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Graphical representation of the significant two-way interaction (see Figure 2) was done using the standardized regression coefficients of the regression lines for employees high (1 *SD* above the mean) and low (1 *SD* below the mean) on psychological safety of the immediate work community. Figure 2 shows that high level of goal-oriented self-leadership strategies was related to greater experience of meaningfulness, but psychological safety moderated this effect: in a situation where employees used a lot of goal-oriented self-leadership strategies, high psychological safety of the immediate work community further strengthened its relationship to meaningfulness. That is, in this situation, the meaningfulness of work was the highest. However, the beneficial effect of psychological safety of the immediate work community on meaningfulness was even more marked in a situation where employees only made small use of goal-oriented self-leadership strategies.

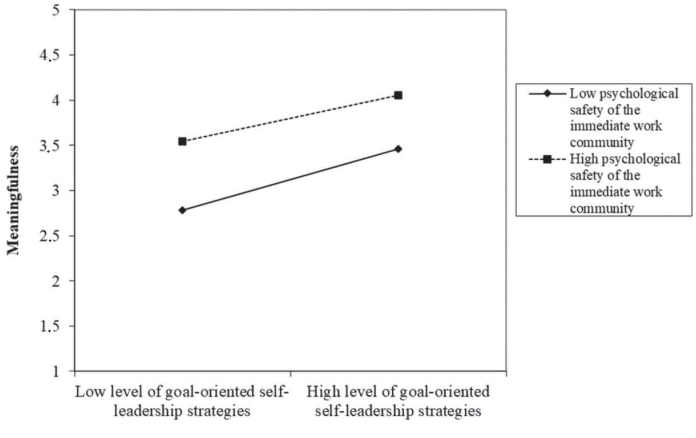

Figure 2. A significant interaction effect between goal-oriented self-leadership strategies and psychological safety of the immediate work community.

4. Discussion

This study focused on the role of goal-oriented and well-being-related self-leadership strategies and psychological safety of the immediate work community in the context of enforced remote work caused by COVID-19. Although both self-leadership and psychological safety have been studied extensively for decades, research currently lacks emphasis on (1) their relationship to the well-being outcomes of this study: job burnout and meaningfulness of work, (2) their interrelatedness, and (3) the context of remote work and multi-locational work. In addition to studying these important aspects, the present study also contributed to the measurement of self-leadership and psychological safety: we added focal extensions to existing scales on both phenomena. In the following, we will discuss the main findings and their implications.

4.1. Main Findings

In this study, we included two categories of self-leadership strategies: goal-oriented and well-being-related strategies. Well-being-related self-leadership strategies are a novel contribution of this study and of particular importance to the current challenges of working life, namely the need for a balanced and sustainable approach to work versus excessive stress and mental overload impairing employees' working capacity and well-being. Aligned with Hypotheses 1–4, both goal-oriented and well-being-related self-leadership strategies were positively related to meaningfulness of work and negatively to burnout. Furthermore, our results showed that the two types of self-leadership strategies had differing relations to well-being outcomes: goal-oriented strategies had a stronger positive relation than well-being-related strategies to meaningfulness of work, and well-being-related strategies had a stronger negative relation to burnout than did goal-oriented strategies. It is plausible that utilizing goal-oriented self-leadership strategies and regularly identifying one's most essential tasks and best practices in approaching them is likely to lead not only to more successful outcomes at work but also to a better awareness of the importance and meaning of one's work. Well-being-related self-leadership strategies, on the other hand, such as taking regular care of one's physical well-being and sufficient recovery at work, are essential, especially in preventing an excessively consuming work routine. These findings also demonstrate that self-leadership is focal to both positive and negative aspects of occupational well-being and that the self-leadership strategies applied need to be diverse in order to aid employees in leading themselves towards both productive and sustainable work. Goal-oriented and well-being-related self-leadership strategies represent qualitatively different kinds of strategies, both of which are needed in today's working life: sufficient self-discipline in approaching essential goals and sufficient self-care in supporting that process.

The results showed that, as hypothesized (Hypotheses 5 and 6), psychological safety of the immediate work community was positively related to meaningfulness of work and negatively to burnout. The findings concur with those of earlier research, showing positive relations between psychological safety and other positive job attitudes [46,51,52,54] and suggesting negative relations between psychological safety and burnout [55,58]. They also demonstrate that psychological safety is important in both supporting positive and preventing negative aspects of occupational well-being, which are both essential aspects of it.

Furthermore, the relation of psychological safety to meaningfulness of work was slightly stronger than the relation to burnout. This is an interesting and novel finding; so far, there has been more research on the relations between psychological safety and positive measures of occupational well-being than those of ill-being. In fact, many key studies on psychological safety have seen the phenomenon first and foremost as a focal prerequisite for learning, self-expression, growing, contributing, and performing effectively [18,48–50]. It may be that while psychological safety is essential in protecting employees against workplace ill-being, it has an even more focal role in creating circumstances conducive to

flourishing at work. Determining the exact nature of the role of psychological safety in workplace well-being and ill-being calls for further research on the topic.

The hypothesized moderating effect of psychological safety on the positive relation between goal-oriented self-leadership strategies and meaningfulness of work (Hypothesis 7) showed that meaningfulness of work is at its highest when goal-oriented self-leadership strategies are utilized in a psychologically safe environment. This interesting finding prompts further research on the role of psychological safety in self-leadership behavior. In light of our findings, we suggest that psychological safety may in fact be a boundary condition for self-leadership; aligned with earlier research, it supports a culture of initiative and enables proactive behavior among employees [18,19]. As a similar finding, earlier research has shown that external leadership has a pivotal role in facilitating individual employees' self-leadership behavior [47,74]. However, immediate work community characteristics and psychological safety have received less attention, and in this regard, the present study offers a valuable opening.

Other hypothesized interactions between psychological safety and self-leadership strategies were not supported in this study (Hypotheses 7 and 8). That is, psychological safety did not have a moderating effect on the positive relation between well-being-related self-leadership strategies and meaningfulness of work or on the negative relation between self-leadership strategies and burnout. This appears to be in line with the main effects detected in this study: the positive relation between psychological safety and meaningfulness was stronger than the negative relation between psychological safety and burnout. It may be that psychological safety has a more important role in positive workplace phenomena and various measures related to efficacy at work, such as learning behavior and work engagement [46,50–52]. Goal-oriented self-leadership strategies and meaningfulness of work fall into this category, whereas well-being-related self-leadership strategies and burnout are workplace phenomena that are essentially related to recovery from work.

4.2. Implications

Self-leadership is increasingly important in today's working life, and the ways to measure it need to be updated to meet the current needs encountered by employees. We suggest that well-being-related self-leadership strategies should be included in both measuring and applying self-leadership strategies. This is particularly important in the context of remote work—varying working conditions at home, such as inadequate ergonomics, frequent interruptions, or lack of a peaceful environment for focused work, may challenge both productivity and well-being in many ways. Applying diverse self-leadership strategies is essential.

It is also important to point out that even though the need for self-leadership skills is underlined in today's working life and remote work conditions in particular [3,9,10], and many employees have a highly autonomous role that permits self-leading one's work [1,2], this does not yet mean that all employees have the necessary skills. Organizations need to pay attention to offering sufficient support in learning the needed skills, as well as providing sufficient support for work in general, not leaving the employees in an excessively autonomous role [38,40,75]. During the pandemic, many organizations have, in fact, offered their employees support for learning self-leadership skills and other skills that are relevant for remote working. In this regard, the pandemic may have been beneficial since this was needed already preceding it and it will be in the post-pandemic time as well.

Self-leadership is also not separate from the community or its prevailing culture: even though self-leadership is a concept concerning individual skills, it is likely to be strongly influenced by the practices of the team. Similarly, in the context of an adjacent concept of self-organizing, it has been pointed out that the self-directed behavior of an individual is not separate from the activities of the team but essentially a part of them and of the joint movement towards shared goals [76]. In fact, in today's working life, the shift to understanding leadership as a distributed activity and a collective phenomenon is increasingly topical, and self-managing organizations and radical decentralization of

authority are broader manifestations of organizations responding to the changes in working life [77,78]. This study, for its part, responds to the need to take more account of team characteristics, more specifically, psychological safety, when researching individual self-leadership behavior. It cannot be taken for granted that the work environment fully supports what is expected of the employees; especially in transitioning into a new culture and practices, conflicting norms may prevail. For example, if the employees are expected to assume an autonomous role but are still simultaneously led in a controlling way, this is problematic and likely to impair autonomous behavior [1,75].

This study contributes to the much-needed knowledge of psychological safety in the context of remote work. This is essential in both pandemic and post-pandemic times, and studies on this topic are so far few. However, earlier research does indicate that remote working comes with certain specific challenges regarding psychological safety. For example, feeling confident about speaking up without fear of being rejected is facilitated by frequent, spontaneous, and informal conversations; in a virtual setting, however, conversations are less frequent, less spontaneous, and less informal [79,80]. Employees may find it harder to reach out for help and to have a sense of human connection over sporadic online communication [80]. Overall, this era of remote work appears to greatly enhance the importance of fostering trusting relationships and psychological safety [79]. These results underline the need for further research on psychological safety in the context of remote work and multi-locational work. In addition to the immediate work-community perspective on it, the role of leadership on psychological safety in remote work requires further attention.

Finally, the new concept of psychological safety of the immediate work community showed promising results in terms of the consistency of the scale. It served to supplement the existing scales of team psychological safety e.g., [50] by covering additional aspects of psychological safety apparent in the definition of the concept and in the relevant literature [18,50] but not explicit in current scales, i.e., attitudes to trying out new ways and making mistakes. In addition, the new concept expanded the construct to cover the immediate work community in general, as in current times, many employees frequently work in more than one team.

4.3. Strengths and Limitations

This study contributed to the current knowledge on self-leadership in the specific context of remote work. Earlier research has suggested that self-leadership is particularly important in this setting, yet studies focusing on it have been few. Furthermore, the study was carried out during enforced remote work caused by the COVID-19 pandemic, which further accentuates the role of remote work conditions. The study also broadened the concept and measurement of both self-leadership and psychological safety. Furthermore, it focused on the interrelations between self-leadership and psychological safety, which is a novel approach in researching these two topical phenomena.

However, there are limitations to this study that should also be considered as well.

This study utilized cross-sectional data, which inhibits conclusions about causal effects. The study should therefore be replicated with longitudinal data as well as a more representative sample in terms of professional field and organizations as this study utilized a homogeneous sample of university employees. The literature on psychological safety would also benefit from researching the topic on different levels, i.e., individual, immediate work community, and organization. This challenge has also been acknowledged in earlier research: research has mostly focused on measuring individuals' perceptions of team psychological safety [19]. Although Edmondson's [50] original work was designed at the group level, there is still surprisingly little group-level and cross-level research [46].

A more comprehensive understanding of the role of psychological safety in self-leadership behavior and its effect on well-being requires further research. This study focused on goal-oriented and well-being-related self-leadership strategies, and in future research, it would be very informative to include a broader set of self-leadership strategies

to study their relations to psychological safety and well-being. Examples include constructive thought-pattern strategies and natural reward strategies [21–23], both of which are more about internal self-leadership processes as opposed to external behavior-related self-leadership strategies, into which category both goal-oriented and well-being related strategies fall.

5. Conclusions

This study examined the role of self-leadership and psychological safety and their interrelations in the context of enforced remote work caused by COVID-19. It was conducted during the pandemic, during which most employees were working from home, but the results have important academic and practical implications beyond the exceptional circumstances. Indeed, remote work and multi-locational work are likely to remain common ways of working after the pandemic, and knowledge of self-leadership and psychological safety in this specific context is needed, since studies with this approach as still so rare.

The study had novel value in shedding light on the interrelatedness of self-leadership, psychological safety, and occupational well-being. We discovered not only that self-leadership strategies and psychological safety were positively related to meaningfulness of work and negatively to job burnout, but also that psychological safety moderated the relation between goal-oriented self-leadership strategies and meaningfulness of work. This result suggests that psychological safety has an important role as a boundary condition for self-leadership, enabling an individual to be active in self-leadership behavior. Furthermore, the results suggest that psychological safety is more important for the meaningfulness of work than for reducing job burnout.

Moreover, the study contributed to the measurement of self-leadership and psychological safety by elaborating on the scales to better capture current workplace phenomena. More specifically, it presented a novel category of well-being-related self-leadership strategies, shifted the focus of psychological safety beyond one single team to the immediate work community and potentially multiple teams, and also included aspects explicitly emphasizing the culture regarding mistakes and failures, as well as immediate work community members' attentiveness to each other's well-being.

Overall, the results of this study underline the importance of both diverse self-leadership strategies and the psychological safety of the immediate work community for employees' well-being in today's working life. It is important to offer sufficient support for both aspects as they are crucial to both the well-being and productivity of employees, the more so in in remote work conditions. More research is needed to further unravel and consolidate the dynamics between psychological safety and self-leadership behavior.

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