

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

A review of Literature is vital in understanding and conceptualizing any study. Different studies and articles related to the topic have been found and examined. Critically Identifying and examining what studies have been done in the field of Present study and what is the further scope.

The Following Chapter of the Review of Literature attempts to understand the various studies done on different aspects/factors related to virtual connectivity and health & well-being. The study will also dig into the effect of COVID-19. The review of literature is drawn from studies and articles from various national and international journals available.

Several reputed journal databases such as Google Scholar, Shodhganga, Wiley Online Library Taylor & Francis Online, Emerald Insight, Taylor and Francis Online, Research Gate, IEEE Xplore

The chapter draws on various literature based on various factors/Terms undertaken in the present study related to Virtual Connectivity. The studies about the same factor are clubbed under the same head.

## **2.1 Virtual Work**

*Arvola, R., Lutsola, K., Kristjuhan, Ü., & Tint, P. (2017)* in their article on *Telework* highlighted the growing importance of telework. As there is a continuously extending life span of people so are the financial problems arising with it. Telework seems to be the problem solver. Empirical data was collected through the survey method from 127 respondents who worked for real estate companies. They worked in Estonia. The findings suggest that many older individuals engaged in information communication technology (ICT) express willingness to extend their working years if offered the option of telecommuting.

*Belkin, L. Y., Becker, W. J., & Conroy, S. A. (2020)* conducted a study on email monitoring. The study focused on examining organizational expectations for email monitoring (OEEM) during non-work hours as an antecedent of employee low work detachment, emotional exhaustion, diminished work-life balance, and increased turnover intentions. The study Pinpointed a decrease in work-life balance. It is negatively correlated with employee intentions to leave the company. However, this direct effect has no significance in the full model. Moreover, the results demonstrate that OEEM impedes the work-life balance of employees. Due to emotional exhaustion and a lack of work detachment, both are responsible factors. There was also an indirect effect of email monitoring on intentions of employee turnover.

*Bin Wang, Yukun Liu, S. Parker (2020)* discuss the challenges faced by remote workers through the COVID-19 pandemic and how virtual Work attributes among individuals can affect these challenges in an article. The research had two studies, study 1 used semi-structured interviews, and study 2 used survey data. The study implies that social support, job autonomy, workload, and self-discipline play important roles in mitigating the adverse impact of remote work. The findings have implications for both the current pandemic and future remote work situations. Work-from-home interference, poor communication, procrastination, and loneliness are four primary remote work issues. Positive social support is connected with fewer distant working problems. The workload was additionally linked to lower procrastination.

*Schur, L. A., Ameri, M., & Kruse, D. (2020)* The study highlights that while workers with disabilities have embraced remote work opportunities, they still face challenges, including wage disparities and limited access to occupations that offer work-from-home options. The trend of primarily working from home among workers with disabilities is observed across various demographic categories, including occupation, gender, race/ethnicity, age, and

education levels. The only exception is that there's little difference in this trend among middle-aged workers

The primary advantage of telecommuting lies in its flexibility, which fosters a positive attitude among employees toward continuing work beyond the legal retirement age and for as long as their health permits. Telecommuting plays a crucial role in prolonging individuals' working lives.

***The study by Lundberg, U.; Lindfors, P. Psychological reactions of female and male white-collar telework. (2020)*** highlighted the health issues of teleworkers. The evidence of the study suggested Blood pressure is significantly higher during work at the office than when teleworking at home. Men white collar workers had significantly elevated epinephrine levels in the evening after telework at home. The presumption was made that decreased cardiovascular arousal during telecommuting is attributable to varied work responsibilities, while heightened epinephrine levels in men post-telecommuting are attributed to extended work hours, the influence of COVID-19, and virtual work settings.

***Di Fusco, S. A., Spinelli, A., Castello, L., Mocini, E., Gulizia, M. M., Oliva, F., & Colivicchi, F. (2021).*** It was titled “Impact of working from home on cardiovascular health.” The shift to working from home can significantly affect workers' lifestyles, psychosocial well-being, and overall health. More research is required to establish the exact impact of lifestyle changes. Tailored solutions should also be identified. The article suggests implementing countermeasures to mitigate the potential adverse health impact of working from home & to maximize the advantages of remote work.

***Wöhrmann, A. M., & Ebner, C. (2021) conducted a study titled “Understanding the bright side and dark side of telework”.*** Telework affects employees' health through control over working time, time pressure, boundaryless working hours, coworker relationships, and disturbances and interruptions, according to the study. These factors play a significant role in determining the overall well-being of teleworking employees.

The study conducted by ***Yoshiko Kubo et al. (2021)*** investigated the connection between Japanese workers' frequency of telecommuting and their poor eating habits. The results of the study showed that there was a correlation between the frequency of telecommuting and four unhealthy eating behaviors: meal replacement, skipping breakfast, dining alone, and eating less often. Several research studies have indicated a correlation between missing breakfast and

negative health outcomes, including but not limited to obesity, overweight, heart disease, and impaired cognitive function. The study also looked at how frequently working from home causes people to substitute packaged or processed foods for individual meals.

**Sultana, U. S., Abdullah, N. E. T. M., Mok, E. T., Hossain, J., Sherief, S. R., Iskandar, M. L., & Andalib, T. W. (2021)** did a study on job satisfaction and employee performance in Work from a Home (WFH) perspective. The findings highlighted that normative commitment and intrinsic motivation significantly affected job satisfaction and performance among remote workers. Additionally, the research indicated that work satisfaction acts as a partial mediator in the link between employees' performance and their level of involvement. Emphasizing the importance of factors like job satisfaction, motivation & employee performance in remote working scenarios

The article by **Anubhav Mishra and Monika Sharma (2022)** highlights the virtual work benefits and challenges. The article emphasized that the sector of the industry plays an important role in the feasibility of preferring the work mode. Many service industries like retail, healthcare, education, and entertainment have naturally adapted to the work-from-home culture, but many are still bound to physical locations and presence.

**Michael S. Henry, D.B. Le Roux, D Parry (2022)** studied distributed work patterns at different organizational levels to create a conceptual framework. Addressing conceptual uncertainty was the main goal. The findings of the study suggest all knowledge workers are teleworkers to some extent and all teams or organizations are virtual to some extent. The study reveals that virtual work and distributed work can be considered as separate dimensions that characterize various work settings. Organizational environments can be described using these dimensions.. Furthermore, the study identifies four key factors that influence organizational policies concerning virtual work and distributed work the interdependence of tasks, the nature of work, the technological environment, and temporal distance.

**Widar, L., Heiden, M., Boman, E., & Wuitavaara, B. (2022)** conducted a study titled *How Is Telework Experienced in Academia?* The study proposes to investigate academics' experiences and perceptions of telework within the academic context. The study was based on interviews of 26 academics from different Swedish universities. The results indicate that comprehending the working conditions while teleworking is essential for advancing sustainable working conditions that enhance the well-being and work performance of academics when academic institutions provide telework opportunities. They valued the

flexibility and autonomy that telework provided. Telework has the energy to enhance individual work and productivity. However, it could also introduce challenges for the broader workgroup, which may need to adapt to this mode of work.

A study was *conducted on telework by Adamovic, M. (2022)*. The data survey was collected from 604 teleworkers from different countries. The study's conclusions demonstrate that working remotely lessens occupational stress. Only if the workers do not think that telework causes social isolation. Here the study emphasizes the importance perception of social isolation by the employees working in an organization. Employees' perceptions and attitudes towards telework significantly differ based on the level of authority or power they have in the organization.

## **2.2 Work-life Balance**

***Diamond, C. (2002).*** Telework: a ‘family-friendly’ work arrangement. *Labour & Industry: The study was qualitative. The study highlights that telework can have positive effects on work/family balance, but the extent of these benefits varies depending on individual circumstances, particularly gender. For males, telework may encourage them to become more involved with their families and take on more household responsibilities. For females, telework can facilitate the management of multiple roles, including work & family responsibilities. However, despite these positive aspects, the study suggests that the shift towards telework didn’t seem to challenge the traditional form of work.*

***Crosbie, Tracey & Moore, Jeanne. (2004), Work-Life Balance & working from home.*** The research includes 45 interviews and 3 focus groups. Research was conducted on homeworkers. They were from different socio-economic backgrounds. The study concludes that the current focus on work-life balance is promising, offering greater flexibility and choice for various workers, provided that companies take it seriously. However, the term "homeworking" needs a clearer definition for policy development in this area. Many organizations are considering homeworking policies, but there is uncertainty about how to proceed and a lack of agreed guidelines. For working women, especially those with young children, work-life balance is a more personal concern. The recommendation is to offer semi-career breaks, allowing part-time employment for parents prioritizing childcare, which could help close gender divisions in caregiving.

***Gudbjörg Linda Rafnsdóttir & Arnaldur S. Stefánsson's (2014) research article on “Virtual work & work-life balance for managers”.*** The primary concern was whether the potential for remote work contributes to achieving work-family equilibrium and enhancing the overall well-being of managers. The study highlights the mixed impact of virtual technology on work-life balance, with some managers perceiving challenges while others find it easier to reconcile work and family life. Gender differences exist in how virtual technology affects well-being. It emphasizes the need for policies to manage the potential negative effects and promote a healthy work-life balance. It can be inferred from the study that the majority of managers report that virtual technology extends the workday. Approximately half of them find it more challenging to balance work and family life due to virtual technology. However, they also note that the conciliation between work and family life is becoming easier. Among men who believe that virtual technology negatively affects their well-being, there is a higher likelihood of

experiencing stress, exhaustion, and finding their job demanding. This connection is not observed among women. The study underscores the importance of human resource managers and those responsible for the work culture and occupational health in defining policies related to virtual work. The aim is to prevent excessive workloads and mitigate the negative effects of work on family life.

**Solís, M. S. (2016).** Telework: conditions that have a positive and negative impact on the work-family conflict. The study was based on 142 teleworkers. The findings highlight the multifaceted nature of work-family conflict within the framework of teleworking, with various elements influencing the experience as a whole. The space designated to work at home plays a role in work-family conflict. The presence of other individuals at home, while someone is teleworking, can impact work-family conflict. The number of days a person engages in telework affects their work-family conflict. The duration of time an individual has been teleworking is a contributing factor. The extent of responsibilities outside of the work environment also plays a role in work-family conflict.

**Bendroth, A. K., & Reimann, M. (2018), did a study on “Telework and work-family conflict across workplaces.”** The study findings imply the distinct relationship between telework, workplace culture, and work-family conflict, emphasizing the need for thoughtful telework implementation that considers the well-being of employees with substantial family responsibilities. Higher levels of work-family conflict are linked to telework, both in terms of time- and strain-based factors. This is partially explained by the significant overtime that teleworkers frequently perform. The level of work-family conflict experienced by teleworkers is influenced by their perception of workplace culture.

However, access to supervisor work-family support can mitigate these conflict levels, resulting in lower work-family conflict. The future scope of the study is to explore how the study's conclusions may vary among diverse employee groups. Additionally, it's essential to investigate how work-family-supportive and high-demand workplace cultures interact in their effects on telework's implications for work-family conflict.

**Palumbo, Rocco & Manna, Rosalba & Cavallone, Mauro. (2020) attempted to** study the implications of home working on work-life balance in educational services. The study findings implies home-based telecommuting can lead to conflicts between work and personal life, as the boundaries between the two become less distinct. However, the use of soft Total Quality Management (TQM) tools, such as organizational meaningfulness and work-related well-

being, can mediate this relationship. These tools help reduce the negative impact of working from home on work-life balance by enhancing the sense of meaning in work and overall well-being.

**Zhang, S., Moeckel, R., Moreno, A. T., Shuai, B., & Gao, J. (2020)** conducted a study on work-life conflict from a teleworker perspective. The goal of the study is to determine the degree to which life stages and telework frequency are related, as well as how the work-life conflict perspective might explain these relationships. The study's conclusions imply the significant role of children in an individual's family-life stage when it comes to their telework behavior. The family-life stage is a crucial factor in understanding telework patterns. Male employees are more likely than females to telework among employees without children. Single employees are more likely to do so than married employees. On the other hand, paired parents are more likely than single parents to work remotely, and women are more likely than men to do so when they have children.

**Lutz Bellmann and Olaf Hußler (2021).** In a study, they attempted to analyze under what circumstances working from home enhances or detracts from work-life balance. The study's findings imply that remote work does not have clear effects on job satisfaction, but it generally harms work-life balance. Surprisingly, work-life balance appears not to be significantly influenced by private interests, in contrast to job-related factors. Employees who work from home are generally happier than those who prefer working at the office, and job satisfaction is higher among those with strict contractual agreements for remote work compared to those with nonbinding commitments.

These results raise the question of how companies can encourage employees who are more satisfied and have a better work-life balance while working remotely. The study suggests that firms should expand remote work options and provide strict contractual agreements for remote work while minimizing remote work outside of usual operating hours. Additionally, open discussions regarding the benefits and drawbacks of working remotely are crucial. Companies should also focus on reducing job-related factors that contribute to work-life imbalances, such as allowing more flexible timing to prevent job strain, ultimately enhancing work motivation and performance.

**Tejero LMS, Seva RR, Fadrilan (2021).** They explored to compare psychosocial and job-related characteristics before and during the creation of work-life balance (WFH) and to ascertain how these aspects connect to productivity and WLB. The finding of the study implies



that various job-related & psychosocial factors deteriorated significantly during work-from-home (WFH) compared to working in the office. Work-life balance (WLB) & productivity (PRO) were negatively impacted during WFH. Among the factors influencing productivity, sleep quality (SQ) had the most significant effect, and it was primarily affected by stress (STR). Stress, in turn, was most influenced by psychological detachment (PD).

The study also revealed that the pathway from PD to SQ to PRO is significant, indicating that improving productivity during WFH is dependent on enhancing psychological detachment. Furthermore, social support (SS) significantly influenced WLB. This highlights the importance of fostering social support among employees. Psychological detachment significantly influences stress and sleep, which in turn affects productivity, while social support plays an important part in maintaining work-life balance.

***Rathnaweera D, Jayathilaka R (2021).*** They attempted a study to identify the impact of the virtual office platform on work-life balance. The study was done in Sri Lanka and data was collected through the online questionnaire. In addition to filling a knowledge vacuum regarding the effects of virtual working platforms on work-life balance in the Sri Lankan context, the study offers insightful information for formulating policies and strategies in a developing nation where virtual platforms are rapidly expanding.

According to the study, teleworking and virtual platforms ought to be included in organizational procedures and practices. It is not just seen as a short-term solution. Emphasis should be paid to women with young children, skilled employees, and degree holders. Flexibility and opportunities for workers, along with addressing role conflicts, can lead to positive organizational outcomes. Factors related to the non-working environment, such as gender and the number of children in the family, have a substantial impact.

The study indicated that there is a considerable favorable influence of virtual office platforms on work-life balance. Both employees and employers should evaluate these variables carefully when dealing with virtual platforms. These findings offer valuable insights. It enables to adopt of strategies to optimize virtual platforms for enhancing employee well-being and mutual benefits.

The culture and policies of employers within the online platform have a noteworthy effect on employees' personal lives and productivity. Employees tend to be more productive when they feel trusted, recognized, and well-prepared for virtual work. The elimination of commuting

expenses and time positively affects productivity. Employers must also ensure that employees have the necessary resources, a suitable home workspace, and a family-friendly work culture for remote work. The study indicates that when assessing the effect of virtual office platforms on employee work-life balance, the aspects of the home environment may be given comparatively more weight.

**Wolor, C. W., Nurkhin, A., & Citriadin, Y. (2021) titled “Is working from home good for work-life balance, stress, and productivity, or does it cause problems?** This study examines the quantitative effects of work-life balance and employee stress levels on employee productivity during work from home for extended periods owing to the COVID-19 epidemic.

The investigation reveals that work-life balance and work-related stress have a significant impact on work productivity. The study concludes Working from home does not have a positive effect on work productivity but a positive effect on work-life balance. While Work-related stress has a positive effect on work productivity and Work-related stress has a positive effect on work-life balance.

In the article *Contribution of social support to work-life balance on working women during work from home* by **Rezky Ariany, Aras, Sri Wahyuni, Annisa Halawatus Salwa Thalib (2022)**. The article ascertains how social support affects working women's work-life balance when they work from home. The research was based on 171 working women. According to the study, social support plays a big role in helping female employees who work from home maintain a healthy work-life balance.

This indicates that social support is a valuable factor that can enhance the work-life balance of individuals. The instruments used included a social support scale and a work-life balance scale. The results reveal a positive relationship between social support and work-life balance. It implies that higher levels of social support are associated with improved work-life balance. Additionally, the study showed that working women with two children and those over 40 years old usually possess a higher work-life balance.

**Melika Shirmohammadi, Wee Chan Au & Mina Beigi (2022)** Remote work and work-life balance: Lessons learned from the COVID-19 pandemic and suggestions for HRD practitioners. The study's findings revolve around four contrasting themes that highlight the varying aspects of remote work. The themes' spectrum ranged from the most desirable expectations to the most challenging experiences of remote work. These themes provide insight

into remote work, shedding light on the "best and worst" scenarios by describing the extremes of the four dimensions. These themes include conflicts between flextime and work intensity, flexplace and space limitations, technologically feasible arrangements and technostress/isolation, and family-friendly arrangements and household/care responsibilities. The study also acknowledges its limitation that these themes may not encompass all potential outcomes of working remotely.

The study emphasized remote workers to blend in with their work environments. It can negatively impact work-life balance. Also, to align remote workers' expectations with the remote work environment. It is necessary to improve work-life balance.

**Weeraratna R, Rathnayake N, Yasara I, Jayasekara P, Ruwanpura D, Nambugoda S.** (2022) Research study on Towards work-life balance or away. It focuses on unveiling factors that would have an impact on the work-life balance of software engineers. The data was based on data from 384 participants collected through a questionnaire.

The study identified that "supervisor's trust and support" and the presence of an "individual workspace" greatly influence work-life balance. Contrary, factors such as "working conditions," "possibility to access the organization's networks," and the "number of children" were found to have no impact on work-life balance. The study suggests that work-life balance to be improved by having supportive and trusting supervisors and by providing individuals with designated, distraction-free workspaces. These measures help establish clear boundaries.

A study was conducted on **Personnel loyalty, and work-life balance during remote work by Solveiga Blumberga et al.. (2022)** Surveys on work-life balance & loyalty were done with 103 full-time remote employees in the manufacturing sector. The study findings highlighted that workload has the most direct effect on the work-life balance. Lack of managers' understanding and employee's attitude towards staff absence were the highlighting issues. To enhance employee loyalty, the study suggests forming new work teams regularly, organizing networking events involving all employees, and ensuring consistent communication.

**R Vaidya 2023 Association among remote working and work-life.** The objective was to investigate the relationship between work-life balance and remote work, taking into account the role of social support. It was on work-life balance among migrated employees in Hyderabad Metro. The analysis showed excellent model fit and indicated that social support facilitates the relationship between remote working and work-life balance. Furthermore, statistically

significant gender differences were observed in social support, work-life balance, and remote working. Overall, the findings offer valuable insights for companies to improve their remote work policies and practices, especially for employees who have migrated to remote work. Remote working has gained popularity, especially amid the COVID-19 outbreak. Establishing boundaries to minimize distractions for employees is essential, including creating designated workspaces within or near their residences. Another major highlight was there was not a noteworthy mediating effect of occupational stress and job satisfaction on performance through remote work.

***Ferreira P, Gomes S. Study on work-life balance and work from home experience aimed to examine the association of perceived organizational support (POS) and individual resilience (IR) with work-life balance (2023).*** The study's conclusions made clear that obtaining a healthy work-life balance depends in large part on the caliber and quantity of organizational and human resources. Work from home (WFH) has a negative influence on WLB. This suggests that, in some cases, remote work may disrupt the balance between one's personal & professional lives. Positive Organizational Support positively influences WFH but harms WLB in the presence of mediation by WFH. This implies that while organizational support can enhance remote work, it may also lead to a poorer WLB when channeled through WFH. Inspirational Resources negatively influence WFH but positively influence WLB when mediated by WFH. This suggests that certain individual resources may be more beneficial for WLB when integrated into remote work.

***KDV Prasad, VK Satyaprasad (2023) titled “The relationship between remote working and work-life balance with mediating and moderating effects of social support”.*** The research attempts to examine by moderating and mediating the impacts of social support on work-life balance in the link between remote working and work-life balance. The study was based in Hyderabad India. A questionnaire was used to gather the 301 responses.

Remote work offers numerous benefits, but it also presents challenges that must be effectively managed. The effectiveness of remote work arrangements depends on prioritizing work-life balance & social support, and both businesses and employees have responsibilities in attaining this balance. By doing so, remote work can positively transform the way we work and live.

The study's findings indicate that social support plays a significant and positive role in balancing work-life balance and remote work. Remote employment has a better effect on work-life balance in environments with strong social support than in less supportive ones. with low social support. In other words, having strong social support during remote work adds to a better work-life balance.

### **2.3 Workplace, Work from home, Work Flexibility**

A study by **Graham, M., Weale, V., (2021)** on working at home suggests that gender and parental responsibility are two important factors influencing pain, stress, and work-family and family-work conflict. According to the study, women who had children were more stressed than males who were in the same situation. The study also showed that women without children had less conflict between work and family. Also, women without children had less conflict between work and family than did males with children. Regardless of the presence of children, women reported more pain and discomfort than males who were also parents.

The study by **E. Hill, M. Ferris, and V. Martinson (2003)** titled *Does it matter where you work?* The study attempts to understand the influence of work venue on work and life. The study involved comparing the effectiveness of traditional office, virtual office, and home office settings. The factors that were taken into consideration were job performance, job motivation, job retention, workload success, and career opportunity. The study's findings suggest that the impact of the work venue is largely positive on work-related aspects but somewhat negative for personal/family life.

**Dingel, J. I., & Neiman, B. (2020)** a person's productivity may differ considerably when working at home rather than in the usual workplace. They also suggested that there are likely significant complementarities between jobs suitable for remote work and those that require onsite presence.

**Schade, H. M., Digutsch, J., Kleinsorge, T., & Fan, Y. (2021)** conducted a study on Having to work from home: Basic needs, well-being, and motivation. The study focused on how well employees worked and felt in this novel situation. The study data was collected from 199 German employees with childcare duties. The research indicates that workers are adept at adapting to the work-from-home environment, maintaining productivity, and thriving in their roles. They have shown the ability to adjust to the changed work setting.

The sense of relatedness to co-workers is notably affected when employees are not working from an office. However, what matters more than regular social interactions is the sense of being able to rely on colleagues when needed. Studies also suggest Autonomy appears to be a main booster in remote work satisfaction.

*Stiles, J., & Smart, M. J. (2021) did research titled “Study of working at home and elsewhere”.* The study highlighted that full-day telework leads to a decrease in daily travel duration. It also increases the probability of avoiding peak-hour travel for both work and non-work-related reasons.

The study also highlighted there is no minimization in travel time for individuals who engage in part-day telework. Additionally, the ability to avoid peak-hour travel is limited to work-related travel in this case.

*Graham, M., Weale, V., and Lambert (2021)* did a study on working from home. The study emphasized that Women with children experienced increased stress in comparison with men with children. The study also brought to light that women without children encountered lower levels of work-family conflict, and those without children experienced less family-work conflict. Additionally, women reported experiencing more pain and discomfort, irrespective of whether they had children or not, in comparison to men with children.

In a study by *Ghislieri, C., Sanseverino, D., Addabbo, T., Bochicchio, V., Musumeci, R., Picardi, I., & Converso, D. (2022).* The study highlighted that the women had a greater perceived advantage in telework. However, they also had reportedly higher perceived disadvantages. Likewise, emotional exhaustion was considered higher in women accompanied by higher relaxation levels.

The article titled “*Analysis of the Cognitive Load of Employees working from Home and the Construction of the Telecommuting Experience Balance Mode.*” (**Ting Wei et al.y 2022**). This article focuses on the challenges faced by employees working from home during the COVID-19 pandemic, including work-family imbalance and lower performance.

It proposes a balanced model of telecommuting to improve employees' perceived organizational support. It's based on factors such as cognitive load and work-family conflict. A good tele collaboration system and flexible working hours can help reduce the mental and temporal demands of telecommuting, leading to a better overall experience for employees.

## **2.4 Virtual teams**

*The study titled Organizational Communication Satisfaction in the Virtual Workplace by Authors Akkirman, A.D. and Harris, D.L. (2005).* This study highlighted the findings that virtual office workers exhibited higher satisfaction with organizational communication compared to traditional office workers.

*J. Crawford (2022) did a review on the effects of telework on employee wellbeing.* The study highlighted the lack of clarity on the actual impact of telework. The study also indicates that telework typically yields positive effects on short-term well-being and provides increased flexibility in work opportunities.

The findings also suggested that telework varied among certain staff members, indicating that it could be viewed as a form of decent work either alongside or as a substitute for onsite work. The study calls for further research on work designs that support both well-being and productivity. It's also important to take into account the environmental sustainability implications of the increase in remote work.

*Dilby Hala Koleilat, Farmanesh Panteha (2023).* This study attempts to examine the impact of virtual leaders on job satisfaction among employees in the information technology sector, a high-performance industry. The research also investigated the intermediary functions of trust in leaders and work-life balance. It was in the connection between virtual leadership and job satisfaction. The study was based on data collected from 196, it was the quantitative approach.

The study revealed that virtual leaders significantly influence job satisfaction among IT employees. Moreover, trust in leaders and work-life balance act as important mediators that contribute to creating a good work culture and better outcomes for leaders. These statistically significant findings have both academic and managerial implications, offering insights and pathways that can benefit relevant sectors.



## **2.5 Health & Wellbeing**

*The emotional well-being of the workforce is a concern for Indian employers (HRKatha, L. N. November 23, 2018).* The study reveals that Indian companies are serious about developing a formal physical & mental health strategy for their employees, as they are most concerned about their employees' lack of physical activity and stress.

*Oakman, J., Kinsman, N., Stuckey, R., Graham, M., & Weale, V. (2020).* The objective of the study was to understand the impact of WFH on individual workers' health both mental and physical. Qualitative data were organized using narrative synthesis. The studies represented 10 countries. The study reported 10 health outcomes. These were pain, safety, well-being, stress, depression, fatigue, quality of life, strain, and happiness. It also emphasized that the impact on health outcomes was strongly influenced by the degree of organizational support available to employees.

*A study on working at home and subjective wellbeing for wage/salary workers by Song, Y., & Gao, J. (2020).* The study emphasized that bringing work home on weekdays is linked to reduced happiness while engaging in telework on weekdays or weekends/holidays is associated with increased stress. Parental status and gender influence the effect of working at home on subjective well-being. The only positive effect of homeworking identified is that telework reduces tiredness on weekdays

*Kim, J., Henly, J. R., Golden, L. M., & Lambert, S. J. (2020). Workplace flexibility and worker wellbeing by gender.* The study pays particular attention to the specific motivations for working from home and any gender disparities. Flexible work schedules were associated with positive effects on work-related well-being, indicating benefits for employees. Regular remote work showed advantages for well-being. Using remote work consistently to do pending tasks had drawbacks, indicating it may be less beneficial. The adaptability of work times and the use of remote work to do pending tasks were associated with increased work-to-family conflict, especially among female workers. Adaptability to both the start and end of work, as well as engaging in work from home to catch up on tasks, were associated with heightened work-to-family conflict. This was particularly prominent among female workers.

*Evans, S., Alkan, E., Bhangoo, J. K., Tenenbaum, H., & Ng-Knight, T. (2021)* did a study titled “*Effects of the COVID-19 lockdown on mental health, wellbeing, sleep, and alcohol use in the UK.*” The study was conducted on 254 undergraduates. The study revealed compared

to pre-pandemic baseline measurements. It is a significant impact of the pandemic on the health of students. There have been increased symptoms of depression and a decline in overall well-being. The results emphasize the necessity of comprehensive public health approaches to support the mental health of young people during the ongoing crisis.

***Shah, Kalgi & Baskar, Susmitha & Kuba, Ruchika. (2021)*** Impact of 'work from home' model on human health. The study attempts to evaluate the impacts of WFH on the holistic health of workers and analyze the significant stressors among each category of social, mental, and physical well-being. It identifies vulnerable populations, behavioral changes, and requirements for organizational decisions on WFH continuity. Gender, family composition, income groups, and occupation all affect individuals.

The study also exhibits the need for longitudinal studies to further explore remote work. Organizations must make formal determinations regarding the sustainability of the work-from-home (WFH) model. The study observed a mix of unhealthful and healthful behaviors during WFH. Some unhealthful behaviors appeared to have worsened, while more healthful behaviors also emerged. Working females reported more health issues than males, making them more vulnerable to the health impacts of WFH.

Employees hailing from joint families reported more health issues compared to nuclear families. Individuals with children aged above 13 years were less susceptible to the effects of working from home (WFH) in contrast to those with infants. Furthermore, lower- and middle-income groups exhibited greater vulnerability to the impacts of WFH compared to those in higher economic brackets. The research also revealed that the health sector experienced the least impact, whereas the service sector, businesses, and engineering professions were at a heightened risk of experiencing adverse effects.

***Beckel, J., Fisher, G. Telework (2022).*** The article underscores the factors influencing the impact of telework on worker health and well-being. It presents evidence indicating a negative correlation between telework & work-family conflict. Additionally, the article proposes a conceptual model that integrates the job demands-resources framework, delineating how telework might affect worker health & well-being, taking into account individual, work-life, organizational, and macro-level factors.

***Niebuhr F, Borle P, Borner-Zobel F, Voelter-Mahlknecht S. (2022) conducted a survey titled Healthy and Happy Working from Home?***

The health was measured on workability and stress-related symptoms which are physical and psychological. The research study was based on 519 Germans across different industries.

Many employees express a desire to continue working from home, for at least a few days even after the pandemic. The findings of the study suggest technical equipment at home has benefited employees' health, including their ability to work and the reduction of stress-related symptoms. It is also associated with an increase in job satisfaction. The study also revealed the percentage of weekly working time spent working from home is linked to stress-related symptoms. Higher weekly WFH hours are associated with more stress-related symptoms and lower job satisfaction. Experiencing heightened autonomy in a remote work environment results in positive effects on employees' job satisfaction.

***R McPhail (2023) Well-being among IT Employees Working Remotely: Post Covid-19 Reality from the perspective of the IT Industry.*** The research was quantitative. The data was from 1,889 respondents who were remote workers in Poland. There were collected from seven Polish branches of the international IT corporation.

The study recommends that companies invest in well-being, as it significantly impacts sustainable development. The COVID-19-induced shift to remote work gives a platform to understand its effects on employees' well-being. The article suggests revising employer branding strategies to incorporate the well-being needs of remote workers.

The research highlights that the well-being of employees working in IT remotely is high, aligning with other surveys. The importance of well-being programs to sustain remote workers' well-being in mental, social, and physical dimensions. While the study didn't find gender-based differences in well-being opinions. It focused on the requirement to support senior and older employees who might have experienced burnout during the pandemic.

## **2.6 Cyberloafing (Internet Usage in Non-Work-Related Activities)**

Cyberloafing is one major problem that virtual media brings in very smoothly.

In the Indian Journal of Occupational & Environmental *Medicine*, **Shrivastava, A., Sharma, M. K., & Marimuthu, P.** did an exploratory study on *Internet use at workplaces and its effects on working style in the Indian context.* (May 2016). Participants reported a shift in productivity as a result of engaging in non-work-related internet use while at the workplace 42% of participants admitted to delaying their work because of Internet activities. Between 3% and 5% of participants indicated a preference for the Internet over other activities.

**(Varun B. Krishnan 2019)** *How much time do Indians spend on social media?* According to the Global Web Index's Social Media Trends 2019 report by Globally, digital consumers spent nearly 2.5 hours every day on social networks and messaging in 2019. This study conducted surveys with 2.78 lakh respondents from 45 countries, including over 15,000 respondents from India. On average, Indian users spend 2.4 hours on social media, which aligns with the global average.

**Razali, Nurulhuda. (2020).** Conducted a study on cyberloafing. The study highlights the ongoing debate about cyberloafing's impact on the workplace. While some argue for its positive effects, others emphasize the potential adverse effects, such as reduced productivity and security risks. Various approaches, including policies and training, have been employed by companies to address cyberloafing. Some research suggests that it can have positive effects, such as increased productivity, and decreased work stress. It may help employees access information, achieve work-life balance, and even enhance creativity, innovative work behavior, and work performance.

Cyberloafing, especially the informational and social aspects is regarded as a break that encourages creative thinking. On the contrary, Other research indicates that cyberloafing can decrease productivity and work efficiency. Excessive cyberloafing may lead to reduced concentration, energy, and time spent on work tasks. It is estimated that a significant portion of internet usage during work hours is not related to work, potentially leading to reduced work performance. Cyberloafing activities can contribute to deviant behavior and security threats in organizations. Reports suggest that a substantial percentage of employees engage in non-work-related Internet usage during working hours. Cyberloafing can result in significant financial losses for companies due to decreased productivity.

*Krishna, S. M., & Agrawal, S. (2023).* Cyberloafing: Exploring the Role of Psychological Wellbeing and Social Media Learning. The study highlights the importance of addressing cyberloafing in educational settings, especially given the widespread use of the internet and technology among students. It focuses on the requirement for educators and instructors to implement appropriate strategies and interventions to manage internet misuse and cyberloafing in classrooms.

The study contributes to the existing research on cyberloafing and its impact on student's performance and well-being, offering a more comprehensive understanding of these relationships. **Cyberloafing behavior negatively influences social media learning, suggesting that students who engage in cyberloafing may have reduced opportunities for social media learning.**

## **2.7 Covid-19 and Virtual Work**

***“Organizational Compassion and employee engagement in Virtual work environment during covid-19 lockdown in Uganda and Rwanda” was studied by Hannah Muzee et al 2021.***

The article indicated the research study was conducted to determine how organizational compassion & employee engagement interacted with each other through virtual work settings across different environments.

The study's results demonstrate that organizational compassion emerged as a component of employee engagement, surpassing dedication and absorption, particularly in virtual and remote work setting

***Schifano, S., Clark, A. E., Greiff, S., Vögele, C., & d'Ambrosio, C. (2021).*** Conducted a study during COVID-19. Well-being was measured in five dimensions: life satisfaction, a worthwhile life, loneliness, depression, and anxiety. It was conducted through longitudinal data. It was collected in France, Italy, Germany, Spain, and Sweden. The period of May–November 2020 was covered.

The findings of the study exhibit that workers working from home report lower well-being in comparison to the ones who are working from work and individuals who are not employed have the lowest well-being of all. The study's panel data shows that WFH results in a slight decrease in anxiety. However, the results are mixed and may be due to adaptation to the new work situation or the characteristics of individuals. Higher policy stringency is consistently associated with lower well-being, indicating no correlation between policy restrictions and well-being. The study could not find any mediating factors that could explain the relationship between WFH & well-being.

In an article by ***K Mouratidis, A Papagiannakis 2021*** . It was observed and reported that there was a rise in the importance of telework, teleconferencing, online learning, and telehealth during COVID-19 compared to pre-COVID-19. There is a significant scope for its continuous as compared to pre- Covid 19.

***Abdel Hadi, S., Bakker,A.B., & Häusser, J. A. (2021) conducted a study on “the role of leisure crafting for emotional exhaustion in telework during Covid-19.”***

A daily diary study on seven consecutive days with 178 employees was conducted. The study findings implied emotional exhaustion was negatively related to job performance. The Daily work requirements and domestic responsibilities during telecommuting are positively correlated with emotional exhaustion.

***Ekpanyaskul, C., & Padungtod, C. (2021) conducted a study titled “occupational health problems and lifestyle changes among novice work from home workers amid Covid-19 pandemic.”***

The study was conducted in Bangkok, 869 workers were included as study participants from organizations that allowed working from home. The findings of the study most prevalent physical health problem among all workers were weight gain. The study found a significant relationship between the rigorousness of WFH and various health effects. These effects included problems like ergonomics, environmental, and psychosocial. The study also noted lifestyle changes related to the intensity of remote work. These changes included alterations in eating patterns, sleep habits, and exercise routines.

***Chirco,F.,Zaffina,S.,s.,Prinzio,R.R.,Giorgia,G.,Ferrari.G.,Capitanelli,I.,&Ilesanmi,O.(2021)***

conducted a Study on “Work from home in the context of COVID-19 pandemic”. The study emphasized that the shift to work from home amid the pandemic had an impact on both Physical & mental health. Predictors of the physical health problems included a higher consumption of unhealthy food and reduced physical activity.

It was associated with the homework environment, the presence of distractions at home, and a rise in musculoskeletal disorders leading to pain. Predictors of mental health issues included a lack of communication with colleagues at work, reduced mental engagement, and decreased emotional well-being. A notable decrease in workplace comfort led to a decline in workers' efficiency and job satisfaction. To mitigate these issues, it's important to maintain communication, provide support, encourage healthy habits, and offer financial assistance to workers adapting to remote work environments.

***Kumaresan, A. ., et al (2022) conducted*** a study on the prevalence of burnout syndrome among WFH IT Professionals amid the pandemic. The snowball sampling method was used to collect the data and 934 IT professionals were selected based on selection criteria. The study highlighted that a significant proportion of IT professionals are experiencing burnout. Female IT professionals were seen to be more prevalent in experiencing burnout compared to their male counterparts. The study suggests that early assessment of burnout syndrome is crucial for all professionals. Identifying and addressing burnout at an early stage is vital for maintaining good physical and mental health. To improve the well-being and productivity of female professionals, the study recommends creating a positive and work-friendly environment for both genders. A stress-free work environment can contribute to better productivity and job satisfaction.

***Falk, G. E., et al (2022) did a study on “the effects of sedentary behavior interventions on mental wellbeing and work performance.” It was amid the covid-19 pandemic.***

The study suggests that implementing a blend of environmental and behavioral interventions leads to significant enhancements in the performance of work and mental health. These improvements encompass various aspects including mood, fatigue, focus, work satisfaction, non-work satisfaction, and productivity, demonstrating moderate to large effects.

***Cheng, J., & Zhang, C. (2022)*** conducted a study to determine how telecommuting depletes wellbeing. This research was done in China during covid-19 phase. The study revealed increased emotional exhaustion and decreased job satisfaction. It was through reduced psychological detachment from work.

***Lei Yang et al 2022 wrote an article on the Shadow of cyber ostracism over the remote environment.***

This article explores the effect of cyber ostracism on remote work challenges, the environment during virtual work, and their mental well-being amidst the COVID-19 pandemic. It highlights the effects of feeling excluded or ignored in a virtual setting and the advantage of addressing this issue for the well-being of remote workers.

The study revealed that workplace cyber ostracism exerts a major influence on both employee online work engagement and mental well-being. Furthermore, it underscores that feelings of loneliness, ineffective communication, procrastination, and interference between work and



home life act as significant mediators between workplace cyber ostracism, employee online work engagement, and mental well-being.

*Liddiard, K. (2022)* conducted a qualitative study exploring the experiences of multi-disciplinary staff in a medium secure service. It was amidst the COVID-19 pandemic. The study exhibits the employees' encounter emotions such as guilt, loneliness, and a perception of underachievement while working remotely and virtually. The issues related to technology, including resource limitations and connectivity problems, were prevalent among the staff. These challenges were a recurring concern in the virtual work environment.

The analysis exhibited the importance of accessibility and emotional connectivity in the virtual work context. The study established that virtual consultations aided in gatekeeping and admission assessments, enabling the involvement of external stakeholders in meetings for inpatient care and treatment planning. Additionally, it enhanced the family relations for the patients.

## **2.8 Digital Wellbeing**

*Diefenbach Sarah (2018) studied the article titled The Potential and Challenges of Digital Wellbeing Interventions.* This study highlights the significance of technology as a facilitator of well-being and therapeutic engagement. The article focused on merging psychology with technology design. It acknowledges the dual nature of change, encompassing both potential setbacks and challenges to self, and explores how interventions mediated by technology can positively influence well-being

The study proposes a model that encourages people to engage in a positive change process by considering both the challenges and rewards involved. It stems from positive psychology and the faith in individuals' ability to instigate change on their own. Acknowledging that and implementing change can be strenuous. Understanding the factors that make change more difficult or easier for individuals is key to success.

This model aims to bridge knowledge from various disciplines, combining insights from psychology and social sciences. It also focuses on intervening technology design to create effective interventions. It gives directions for designers and human-computer interaction (HCI) specialists in the positive technology domain. It is to comprehend the dynamics of change, develop strategies, and refine therapeutic goals for technology-mediated interventions. It provides an ignition for defining strategies and goals.

*Alberto Monge Roffarello and Luigi De Russis. 2019. Published an article titled “The Race Towards Digital Wellbeing its Issues and Opportunities.”* The study reveals that digital well-being apps are appreciated and beneficial in specific contexts. However, they fall short in fostering the development of new habits. They are perceived as **inadequately restrictive, making them less effective in assisting users in changing their smartphone-related behaviors.**

This research comprises three different studies that offer an overview of existing mobile apps designed to modify user behavior with smartphones. On one hand, these apps can mitigate certain addictive behaviors, like excessive use of social networks.

On another hand, it is a considerable way to go in effectively helping users transform their smartphone behaviors and promote more mindful technology usage. The study suggests future research should explore digital well-being solutions grounded in habit formation and social support theories to address the limitations of current self-monitoring techniques.

***Burr, C., Taddeo, M. & Floridi, L. (2020)***

They did a Thematic Review on the Ethics of Digital Well-Being. The review explores existing literature on the ethics of digital well-being. It is mapping the current debate and highlighting open questions for future research. The three broader themes that were highlighted were “positive computing, personalized human-computer interaction, and autonomy/self-determination.” Various communities may assign differing levels of importance to these domains and themes relating to social settings. The article encourages interdisciplinary collaboration to tackle the complex issues surrounding digital well-being. Also focusing on effectiveness, emphasizing the requirement of a detailed, interdisciplinary approach.

***Büchi, M. (2021). Digital well-being theory and research.***

The study introduces a general digital well-being framework that separates digital practices from their proximal outcomes, acknowledging that digital media can have both concrete harms and benefits. It emphasizes that digital media's impact on well-being is not predetermined but depends on various factors. It includes factors like individual practices, social surroundings, and technological developments.

The framework guides researchers in selecting and specifying plausible paths between digital practices and well-being-related outcomes. It encourages the formalization of these relationships to generate valid findings. It suggests that theory integration is essential to avoid exaggerated claims and spurious discoveries in research in this field.

In conclusion, the study recommends not treating digital media as inherently good or bad but recognizing their influence on human communication and well-being. It underscores the need for continued conceptual work to integrate narrow empirical studies. It focuses on developing a deeper comprehension of digital practices, harms, benefits, and overall well-being.

***Ambrish, Samar Wazir, Tabrez Nafis, Ravindra Kumar (2022).***

The social study of the digital wellbeing era: opportunities and challenges. The study underscores the growing significance of digital wellbeing. The focus was particularly on the domains of healthcare and education, as a crucial aspect of human well-being and future development. The Study attempts to offer a comprehensive exploration of digital life and wellness, addressing both its advantages and disadvantages. It defines and evaluates the utility

of digital well-being approaches in various situations and examines their impact on the younger generation.

The research implies the need to adapt and refine our comprehension of digital well-being. Ensuring the appropriate and responsible utilization of technology is required. Digital well-being is regarded as a critical aspect of human life, and the study underscores its significance. Concerning healthcare, the research explores the implementation of smart technology to enhance medical care and well-being.

The study acknowledges the advantages of digital healthcare, and the study also highlights potential drawbacks, offering insights into the use of digital methods wisely and mitigating negative effects. The research recognizes disparities in digital adoption and underscores the significance of ensuring that digital well-being extends to a broader population rather than benefiting only a select few.

***Thomas NM, Choudhari SG, Gaidhane AM, Quazi Syed Z.(2022)*** did a study on Digital Wellbeing in a Technology Driven World. The study discusses the adverse effects of excessive gadget use, including reduced performance, sleep disturbances, and hindered workplace achievements. It introduces the concept of "Digital well-being". It is a solution to address these issues and establish a work-life balance. It aims to reduce screen time, promote wellness, and enhance productivity using technology and healthy practices.

Digital well-being involves interventions and apps that act as positive reinforcements. It creates a restrictive environment and allocates time for productive activities. While there is a necessity for further empirical research, digital well-being can combat stress, improve work performance, and prevent digital addiction. It can also raise awareness, especially among medical students and teachers. Awareness needs to be generated about the challenges associated with the use of social media and the significance of initiating healthy digital habits. The study asserts that through further investigation and tailoring, the constraints of digital well-being can be surpassed to meet individual objectives and requirements.

*Douglas A. Parry, et al, (2023) did a study on* Digital well-being applications. The study uses a mixed-method approach, gathering both quantitative and qualitative data. This study emphasizes the significance of individual motivations and stresses the holistic comprehension of digital well-being beyond just the usage of these digital tools.

The findings contribute to enhancing our theoretical and practical understanding of digital well-being. They involve insights into the adoption rates, motivations for usage, perceived effects, and user experiences related to applications designed to promote digital well-being. These findings imply the significance of taking individual considerations into account motivations. Hence, adopting a holistic perspective when addressing digital well-being.

## **2.9 Research Gap:**

The researcher has attempted to analyze various articles and reports on various variables of virtual connectivity like virtual work, remote working, work-life balance, digital well-being, health and wellbeing in virtual work, and related factors. The literature included scholarly editorials, commentaries, and research articles from multiple disciplines, offering rich and multidisciplinary information.

It was observed from the literature reviewed that maximum research relating to virtual work, remote working, and WFH were during the phase of COVID-19. The pandemic played an evident role in bringing virtual connectivity as a new normal but the studies findings are limited to the period of Covid-19.

Most articles did not heavily contribute to theory-building, possibly due to the evolving nature of the pandemic's impact on workplaces. The association between virtual work and well-being faces challenges in both conceptual models and empirical approaches. The Present study will also include the aspect of COVID-19. It attempts to understand how COVID-19 has changed the mode of work and work & personal life and the balance in between.

Earlier it was just virtual teams now it's the traditional team as well which are virtually connected. The present study also attempts to understand how virtual connectivity is affecting the traditional team not just the virtual team. It also attempts to provide Strategies that management can implement to increase employees' health & well-being with virtual connectivity.

Advocating for the development of an innovative theoretical structure for promoting digital well-being. The theory aims to redirect attention towards transient instances of equilibrium between connectivity and disconnection in the interplay between an individual's professional and personal life. The current study seeks to discern the factors that affect the effectiveness of digital wellbeing interventions, including initiatives such as digital detox programs or screen time management tools.