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Introducing cyber-loafing as a coping mechanism for suicidal ideation resulting from social isolation, and domestic violence, among employees

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ABSTRACT

Cyberloafing, commonly viewed as the misuse of the internet at work, results in significant financial losses estimated at about \$85 billion annually. Workers engage in cyberloafing, spending approximately two hours daily on non-work-related internet activities, which is traditionally seen as counterproductive. However, recent studies suggest that cyberloafing might also yield positive workplace outcomes, particularly in mitigating negative emotions and behaviors that could lead to suicidal ideation. This study explores the potential of cyberloafing as a coping mechanism in contexts of social isolation, and domestic violence, as contributors to suicidal thoughts. Utilizing a cross-sectional quantitative design, the research involved 467 participants from a mental health and rehabilitation center, assessed via closed-ended questionnaires. Structural Equation Modeling (SEM) was employed to analyze the data. Findings indicate that social isolation, and domestic violence, significantly contribute to suicidal ideation, cyberloafing negatively moderates the relationships between both social isolation, domestic violence, and suicidal thoughts. These results highlight a complex perspective on cyberloafing, suggesting that it could be strategically used to alleviate negative emotional states. The implications are substantial for organizational management, providing a nuanced understanding that could inform strategies to harness cyberloafing's potential benefits, thereby reducing counterproductive behaviors and enhancing employee wellbeing.

1. Introduction

The rising problem of self-annihilation is becoming a significant public health concern. Still, the lack of direct understanding regarding the causes of suicide makes it challenging to develop effective solutions to address it (Muzamil & Muzamil, 2022). Since the reasons for suicide can vary depending on society, culture, and location (Yousafzai et al., 2022), it is difficult to standardize the causes of suicide and find a universal remedy. Bearing in mind these facts, it is imperative that the present topic be thoroughly investigated in context and in each case, so that the true causes for these suicides could be reached. In the east belt of Pakistan, increasing social and legal problems of suicide have reported the most prevalent youth of this region, but the region has no intervention prevailing to address the issue (Yousafzai et al., 2022). In the region where relative peace prevails, the growing concern turns to be the upward trend of self-annihilation (Naveed et al., 2023). Unfortunately, in most cases, suicide is not properly tried and hidden after it occurs.

The issue of suicide and its underlying factors is pretty complex to understand, as the data related to the topic is pretty scarce in the literature review, and most importantly, hardly any studies are conducted in context to suicides (Skopp et al., 2023; Vijayakumar et al., 2022; Walsh et al., 2022). Besides, the weak investigation and trial process are coupled with reluctance to the family members of the victim, which poses great difficulties for determining the basis in the case of suicide. To worsen the situation, different stakeholders diverge between various

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perspectives as to the causes of this same suicide incident. Family members attribute this to mental disorders; the police most times attribute the same to mental disorders, whereas friends attribute the same to domestic violence, and additional evidence could point at a case of discordant marriage as a contributing factor (Ullah, Shah, et al., 2021).

The prevalence of cyberloafing importance in recent years, as using the Internet for personal matters during working hours has become a crucial concern for employers because of high availability of electronic gadgets like smartphones and tablets (Lim, 2002). Statistics show that employees spend up to two hours surfing the net looking for non-jobrelated issues and, according to these statistics, make companies lose billions in a year (Andel et al., 2019). As such, it is against this perspective of disengagement that employers invest a lot of resources in developing strategies aimed at curbing cyberloafing (Wu et al., 2021).

However, recent literature has challenged the underlying assumption that work-related distractions always hurts job performance. More precisely, this emerging body of research work questions the conventional beliefs by demonstrating that cyberloafing may not necessarily have a detrimental impact on an individual's work performance, as suggested by Giordano and Mercado (2023) and Mercado et al. (2017). There have been even a few studies that found potential benefits of engaging in cyberloafing.

For instance, V. K. Lim and Chen (2012)found that it can enhance employees' moods, while Syrek et al. (2018) identified an increase in work engagement. Moreover, scholars have found that employees may engage in cyberloafing as a coping mechanism to manage stressful work conditions, as highlighted by Blanchard and Henle (2008)and Pindek et al. (2018). This suggests that cyberloafing can be used as an instrument to minimize job-related stress. Drawing upon these existing studies, particularly the findings of Henle and Blanchard (2008)and Pindek et al. (2018), the present study aims to explore how cyberloafing might help mitigate the adverse effects of stressors that lead to suicidal ideation (see Fig. 1).

Suicide is growing in the northern region of Pakistan, posing serious social, economic and legal issues attracting researchers to highlight the causes and remedies correctly. In the present paper, we suppose social isolation, and domestic violence, are the major causes. The major attraction of this study is unearthing the beneficial aspect of cyberloafing and presenting it as a strategic move to mitigate the most dangerous emotion of suicide ideation. Presenting cyberloafing, a socalled counterproductive behavior, as an instrument to counter negative emotions is a somewhat novel contribution. However, applying it to address suicidal ideation is a ground-breaking development.

2. Literature review and hypotheses

Suicide is responsible for approximately one million fatalities annually and is a leading cause of death among younger age groups (Naghavi, 2019). Notably, suicide rates have declined by an average of 26 % in most World Health Organization (WHO) regions over recent decades, including in Western nations (Blum & Nelson-Mmari, 2004; Lew et al., 2022). However, whether all socioeconomic strata have benefited from this decline remains unclear. Suicide is more prevalent



Fig. 1. Research framework.

among vulnerable groups such as the less educated, impoverished, and lower social classes (Patton et al., 2009). Studies do not provide sufficient evidence to have a holistic picture of the issue of suicide (Kaurin et al., 2022). Therefore, international comparative data are necessary to provide a more comprehensive understanding of the general evolution of socioeconomic inequalities in suicide, given the wide variation in suicide mortality between countries (Knipe et al., 2022). Even in highincome countries, suicide remains an important social and health issue that can be prevented. Seventy-nine percent of all suicides occur in lowand middle-income countries, which are responsible for the majority of suicides worldwide (Masha, 2022). Low- and middle-income countries, however, have an equal ratio of men to women when it comes to suicide, with 1.6 men for every woman. The suicide rates for women are lower than those for men under 15 years old in almost all regions of the world, while they are higher for those over 70 years old (Naghavi, 2019; Siddharth & Panigraphi, 2022). The suicide rate of older people steadily rises, whereas the suicide rate of young people peaks in some regions (Claveria, 2022). It is interesting to note that young people and older women in low- and middle-income countries are significantly more likely to commit suicide than their counterparts in high-income countries, while middle-aged men in high-income countries are much more likely to commit suicide than low- and middle-income men (Elov, 2022).

The devastating impact of suicide transcends beyond the individual who attempts or commits the act, encompassing their loved ones, acquaintances, colleagues, and communities and affecting millions of people worldwide annually (Reinke et al., 2023; Yip & Pinkney, 2022). Despite its high prevalence, suicide remains a contentious issue, likely resulting in underreporting due to social isolation, criminalization, and subpar surveillance systems. A convergence of diverse factors, including social, psychological, and cultural influences, can culminate in suicidal behavior. However, societal aversion and condemnation towards suicide prevent those in dire need of assistance from seeking help (de Oliveira Santos et al., 2022). Risk factors associated with suicide comprise a history of prior suicide attempts, mental health disorders, substance misuse, financial or job loss, relationship failure, exposure to traumatic events, violence, conflicts, or disasters, and chronic pain or illness (Abrutyn, 2023; Ullah, Shah, et al., 2021).

The term "suicidal ideations" (SI) encompasses various contemplations, desires, and fixations regarding death and suicide and is commonly referred to as suicidal thoughts or ideas (Cui et al., 2022; Zhang et al., 2022). The absence of a universally agreed-upon definition of SI poses ongoing difficulties for clinicians, researchers, and educators (Efstathiou et al., 2022). Healthcare professionals must acknowledge that suicidal ideation (SI) is a diverse phenomenon that differs in severity, length, and nature. Given the absence of a standard suicide victim, suicidal thoughts and ideations cannot be classified as standard. The 3ST posits that ideation commences with pain, which can be psychological or emotional (Kelly et al., 2023). Behavioral conditioning, as stated by Skinner (1953), impacts individuals, causing them to engage in actions that are either rewarded or punished. If an individual experiences a life full of pain, they are essentially penalized for living, decreasing their will to live.

There are certain internet based coping strategies to neutralize the destructive effect of psychological disorders including suicidal ideation, however, it is contingent upon the manner and extent of their use. When utilized rationally and moderately, internet engagement can facilitate cognitive tranquility, emotional regulation and a sense of control, thereby contributing to improved mental health outcomes (Simşek & Simşek, 2019). Conversely, excessive indulgence in digital escapism may reinforce undesirable behavior leading to increase mental distresses and potential maladaptive coping (Tandon et al., 2022). Understanding the duality of internet engagement effects is important to recognize the role of internet use in managing psychological well-being.

In scholarly literature, various terms are often employed to describe using work hours for personal online activities, such as cyberloafing and non-work-related computing (Blau et al., 2006). These terms are specifically used to depict the scenario where employees utilize their company's internet facility for personal use instead of engaging in productive work tasks and pretending to be engaged in work (Jamaluddin et al., 2023). Cyberloafing, also known as cyber-slouching, junk computing, cyber-slacking, or non-work-related computing, encompasses the notion of unproductive time spent on the internet (Lim & Chen, 2012). Essentially, any instance in which employees fritter away their time on the internet can be classified as a manifestation of cyberslacking or cyberloafing. The reality is that cyberloafing leads to a reduction in organizational productivity of approximately 30-40 % (Koay & Soh, 2018). Research conducted on 1000 US employees shows that 64 % have spent time engaging in cyberloafing for personal purposes (Koay & Soh, 2018). As per recent findings, companies suffer significant losses due to the high expenses, time wastage, and decreased productivity levels caused by cyberloafing (Megaputri & Suharti, 2022). Considering the present data, it is unsurprising that companies face a significant challenge in implementing Internet usage policies (Henle, 2023).

Although cyberloafing is commonly viewed as an unproductive workplace behavior, certain studies indicate that it can also function as a coping mechanism focused on emotions, mitigating the impact of exposure to workplace aggression and stress. These researches imply that the implications of cyberloafing in the workplace are more multifaceted than previously believed (Andel et al., 2019). On the one hand, cyberloafing can decrease productivity and detract from important tasks, potentially harming the organization. On the other hand, it can offer a brief and voluntary break that helps emotionally retarded people manage stress, resulting in benefits such as increased satisfaction and reduced suicidal intentions (Jamaluddin et al., 2023; Lim & Chen, 2012).

We propose the following hypothesis based on the premise that individuals who experience social isolation are susceptible to various mental health problems, including depression, anxiety, substance abuse, and chronic conditions like high blood pressure, heart disease, and diabetes (Wells et al., 1989). The occurrence of attempted or completed suicides is notably higher among individuals with mental health issues and chronic diseases. Conversely, individuals who maintain strong social and familial connections and engage in work and other roles exhibit a lower inclination towards suicide (Calati et al., 2019). This interconnectedness acts as an investment in life (Heuser & Howe, 2019; Trout, 1980). Without such investment, feelings of pain and hopelessness may drive individuals to contemplate ending their lives. Therefore, we propose the following hypothesis:

Hypothesis 1. Social isolation is expected to be significantly related to suicidal ideation among individuals.

The extended family system is more susceptible to experiencing domestic violence (Kavak et al., 2018). Domestic violence involves repetitive patterns of coercive control against a former or current intimate partner and encompasses physical, sexual, and psychological assaults. Women are at greater risk of suicide due to domestic and family violence (Rahmani et al., 2019; Ullah, Shah, et al., 2021). Women typically spend most of their time at home managing domestic affairs so a violent home environment can become unbearable. Consequently, we propose the following hypothesis.

Hypothesis 2. Domestic violence is expected to be significantly related to suicidal ideation among individuals.

The Transactional Model of Stress proposes that individuals employ coping mechanisms to manage stressful situations when they become aware of stressors, such as workplace aggression. Coping strategies focusing on emotions aim to address the feelings that arise in response to stress. Drawing from Lazarus and Folkman's Transactional Model of Stress (Lazarus & Folkman, 1984a), the theory posits that cyberloafing serves as a mechanism to cope with stressful conditions strains (Lazarus & Folkman, 1984a). It offers individuals who have experienced social aggression a diversion or respite from the stressful encounter, thereby helping to mitigate the adverse effect of depressants on suicidal ideation. Blanchard and Henle (2008) applied Lazarus and Folkman (1984a) coping taxonomy to propose that cyberloafing falls under the category of emotion-based handling. They argued that by engaging in non-jobrelated activities through cyberloafing, workers can mentally disengage themselves from the detrimental consequences of job-related stressors. Empirical research has substantiated their proposition, indicating that employees facing job-related stressors, like unclear or inconsistent work demands, resort to cyberloafing to escape such stressors through emotion-focused coping (Koay & Soh, 2018; V. K. Lim & Chen, 2012). Keeping in mind these arguments, we assume that:

Hypothesis 3. Cyber-loafing is expected to moderate the relationship between (a) social isolation and suicidal ideation, and (b) domestic violence and suicidal ideation.

3. Methods

A quantitative, cross-sectional, explanatory and hypothetic-odeductive design was applied to conduct the study. The sample was drawn from the registered patients with mental deformities in a healthcare center dedicated to treating mentally ill people by Aga Khan Health Services in the northern region of Pakistan. The sampling frame is among employees who are currently undergoing treatment at healthcare center. The office keeps records of patients with mental illness and maintains regular contact with them. The project staff provided valuable assistance in gathering data. We identified patients who experienced suicidal thoughts using the Suicidal Ideation Attributes Scale (SIDAS) (Van Spijker et al., 2014), selecting those employees who scored 21 or higher on the scale. As a result, 498 patients were chosen for further data collection and were administered with close-ended questionnaires, and 479 questionnaires were returned. Of these, 467 questionnaires complete from all respects were included for analysis. Each respondent in the survey provided informed consent to participate voluntarily, and we adhered to the ethical principles outlined in the Helsinki Declaration. We also guaranteed confidentiality and ensured that the collected data would only be used for research. Table 1 presents the demographic information of the respondents.

We adopted previously used scales to measure our variables. Suicidal Ideation Attributes Scale (SIDAS) (Van Spijker et al., 2014) was used to identify patients with suicidal ideation. We included those who scored

Table 1		
Demography	of res	pondents.

Demographics	Frequency	Percentage
Gender		
• Male	191	41
• Female	276	59
Age (in years)		
• 12–25	136	29
• 26–32	168	36
• 33–40	105	22
• 41–50	31	07
 51 and above 	27	06
Occupation		
 Part-time job 	86	18
 Government job 	63	13
 Private job 	108	24
 Daily wager 	210	45
Education		
 Illiterate 	132	28
 Under matric 	126	27
• Matric	95	20
 Intermediate 	74	16
 Bachelor 	40	09
Marital status		
 Married 	153	32
 Unmarried 	314	68

21 or higher on the scale (SIDAS). The scale developed by Cornwell and Waite (2009), which carries nine items, was used to measure social isolation. The domestic violence was measured using the scale of Peters (2008). The scale designed by V. Lim (2002) was used to measure cyberloafing. Though the adopted scales were validated, we further tested for reliability and validity as these scales were being used in a different context. Besides reliability and convergent and discriminant validity, we tested for multicollinearity, autocorrelation, and common method bias. We used inferential statistics to test our hypotheses with SmartPLS.

4. Results

4.1. Reliability

We conducted reliability and validity tests to assess the data's goodness of fit. Regarding reliability, we found all five variables to be reliable, as in all constructs, Cronbach's alpha values exceeded the cutoff value of 0.7 by a considerable margin (Ullah, AlDhaen, et al., 2021; Wong, 2013). Similarly, the composite reliability for each construct was also high, exceeding the cut-off value of 0.70 (Wong, 2013) see Table 2.

The threshold value for all three variables was surpassed, with AVE values exceeding 0.50 (refer to Table 2). This outcome confirms the convergent validity of each construct. To evaluate the discriminant validity of our measures, we utilized the well-established Fornell and Larcker criterion [82], complemented by the Heterotrait-Monotrait (HTMT) ratio, as suggested by Henseler et al. (2015). According to Henseler et al. (2015), the Fornell-Larcker criterion states that a concept or construct should account for more variance in its indicators than the variance explained by other constructs in the model. In line with this criterion, our study found that each construct displayed higher values compared to the correlations with other constructs, thus establishing robust discriminant validity (refer to Table 3). Furthermore, applying the HTMT criterion revealed that values exceeding 0.9 indicate a lack of discriminant validity (AlDhaen, 2022), while all the HTMT values were below 0.90, as presented in Table 3.

4.2. Multicollinearity and common method bias

We conducted a Variance Inflation Factor (VIF) analysis to assess the presence of multicollinearity and common method bias in the data. A VIF value below 0.5 indicates the absence of multicollinearity, while a value below 3.3 indicates no risk of common method bias (Laila et al., 2023). Our analysis revealed that all VIF values were below 3.3, confirming the absence of multicollinearity and common method bias (Table 4).

4.3. Correlation and autocorrelation

The correlation matrix reveals that there is a positive connection between variables. With correlation coefficients ranging from 0.68 to 0.74, the relationships between variables can be classified as moderate (Table 4). Since the variables are not strongly correlated and all values are below 0.80, it indicates the absence of autocorrelation among the variables.

Table 2

Construct reliability.

	Cronbach's alpha	rho_A	Composite reliability	(AVE)
CYL	0.885	0.885	0.912	0.635
SUI	0.928	0.928	0.939	0.560
SIS	0.848	0.850	0.892	0.623
DVL	0.827	0.836	0.878	0.592

SYL=cyberloafing, SUI=suicidal ideation, <math display="inline">SIS=social isolation, DVL=domestic violence.

Table 3

Discriminant validity HTMT and (Fornell Larcker).

	CYL	DVL	SIS	SUI
CYL	(0.797)			
DVL	0.683 (0.587)	(0.770)		
SIS	0.750 (0.650)	0.799 (0.972)	(0.789)	
SUI	0.818 (0.742)	0.822 (0.726)	0.829 (0.739)	(0.748)

SYL = cyberloafing, SUI = suicidal ideation, SIS = social isolation, DVL = domestic violence.

Table 4 Variance inflation factor (VIF) and correlation matrix.

	DVL	SIS	SUI	VIF(SUI)
DVL	1.000			2.238
SIS	0.677	1.000		2.499
SUI	0.729	0.740	1.000	
SIS				2.051

 ${\rm SYL}={\rm cyberloafing},\,{\rm SUI}={\rm suicidal}$ ideation, ${\rm SIS}={\rm social}$ isolation, ${\rm DVL}={\rm domestic}$ violence.

4.4. Structural equation modeling (hypotheses testing)

Hypotheses are tested through structural equation modeling using SmartPLS (Fig. 2). According to Table 5, the R Square, also known as the coefficient of determination, indicates that 72 % of the variation in the endogenous variable can be attributed to the three exogenous variables included in the model.

The review of the path coefficient (Table 5) reveals that all the hypotheses showing a direct relationship between predictor variables and criterion variables have been substantiated. All the *p* values are below 0.05, establishing the significance of the relationship, while all the T values are higher than 1.645 (cutoff value), indicating that the outer model loadings were significant. The first hypothesis showing the impact of social isolation on suicide ideation presents the strongest relationship among the given predictors. Beta value $\beta = 0.309$ is the highest value in the table. Thus, those who lead isolated lives are more prone to suicide ideation. The second hypothesis related to domestic violence and suicide ideation does present a modest relationship ($\beta = 0.274$) as domestic violence reasonably creates suicidal thoughts.

4.5. Moderation effect

Two out of the three hypotheses examining the moderating impact of cyberloafing on the associations of social isolation, domestic violence, with suicidal ideation have been tested (Table 6). Cyberloafing serves as a reasonable moderator in the relationship between social isolation and suicidal ideation, as indicated by a significant *p*-value and a t-value that provides substantial evidence in favor of the alternative hypothesis. The beta value ($\beta = -0.102$) suggests a moderate negative effect, albeit not a strong one. In the same way, the moderating effect of cyberloafing on the relationship between domestic violence and suicide ideation is statistically significant, though the moderating effect is quite weak ($\beta = -0.081$).

5. Discussion

Suicide rates are on the rise in the northern region of Pakistan, presenting a significant public health concern for the population. Unfortunately, this issue has been neglected, and no measures have been taken to address the problem of suicide (Naveed et al., 2023). The lack of healthcare facilities contributes to increased mental health problems, leading individuals to take their own lives. Although the causes of mental disorders are manageable, they persist in this area. It should be noted that the factors contributing to mental disorders and suicide can



Fig. 2. SEM model.

Table 5R square and path coefficient.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	p values	R square	Adjusted R square
$\begin{array}{l} \text{DVL} \rightarrow \text{SUI} \\ \text{SIS} \rightarrow \text{SUI} \\ \text{SUI} \end{array}$	0.271 0.306	0.271 0.310	0.028 0.033	9.872 9.353	0.001 0.001	0.704	0.702

SYL = cyberloafing, SUI = suicidal ideation, SIS = social isolation, DVL = domestic violence.

Table 6

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	p values
$\begin{array}{l} \text{M-Iso} \rightarrow \text{SUI} \\ \text{M-Violence} \rightarrow \text{SUI} \end{array}$	-0.105	-0.096	0.040	2.589	0.011
	-0.084	-0.074	0.035	2.317	0.022

 $SYL = cyberloafing, \, SUI = suicidal \; ideation, \, SIS = social \; isolation, \, DVL = domestic \; violence.$

vary among different societies and nations, making it challenging to generalize research findings. For instance, alcohol consumption is a prominent cause of suicide in Eastern Europe (Mäkinen, 2000), but no such cases were found in the specific context being discussed. Social isolation is a commonly identified cause of suicidal thoughts, which aligns with existing literature (Raifman et al., 2020; Zamora-Kapoor et al., 2016) to some extent. However, the intensity may not be as strong as indicated by this study. In this particular scenario, most instances of isolation were self-imposed, often due to individuals experiencing social stigma. It has been observed that individuals with mental disorders often lack social connections.

Suicidal thoughts are often associated with domestic violence, a prominent issue in this region due to the prevalence of extended family systems and the normalization of such violence (Garcia et al., 2022; Ullah, Shah, et al., 2021). Most domestic violence victims are women (Cerel et al., 2008; Kavak et al., 2018) and often remain silent due to the absence of legal or social remedies. Among the respondents, 70 % belonged to extended families experiencing various familial problems. This causal factor is specific to this particular population, as there is limited evidence in global literature supporting its existence. In countries where nuclear family systems are more common, the occurrence of domestic violence is lower (Cerel et al., 2008), and the severity of such violence is less likely to escalate to suicidal ideation.

The study unveils exciting findings regarding cyberloafing, which is commonly perceived as an unproductive behavior that managers aim to discourage. Traditionally, it is viewed as a waste of time and valuable internet and technological resources. However, a few studies propose that it can serve as a coping mechanism for dealing with specific negative situations. Our findings indicate that cyberloafing can be employed as a coping strategy to mitigate the emergence of suicidal thoughts resulting from experiences of social isolation and domestic violence.

5.1. Implications

The study has important implications regarding theory, practical applications, and social impact. The results confirm that social isolation and domestic violence are significant factors contributing to suicidal thoughts among the population under examination. Notably, the study highlights that the primary causes of suicide in this population are more influenced by social factors rather than economic ones. The findings expand on the limited existing literature exploring the potential benefits of cyberloafing. This research work extends the Transactional Model of Stress (Lazarus & Folkman, 1984b) to a new field. Our study reveals how cyberloafing serves as an emotional coping strategy to reduce suicidal thoughts which result from social isolation and domestic violence although the original model focuses primarily on work-related stressors.

This study enhances stress-coping research by revealing a new connection between cyberloafing behavior and mental health which had not been established before. Furthermore, this study challenges previous classification of cyberloafing as merely a counterproductive behavior and reclassifies it as buffering tactic against severe emotional stress. It opens venues for researchers to investigate dual nature of cyberloafing.

Furthermore, the research establishes that cyberloafing as a stressmanaging mechanism, demonstrating its role in responding to depressing social factors that contribute to suicidal thoughts. The study informs leaders and managers who would like to completely eliminate the behavior of cyberloafing. From this, the study informs one on what motivates engagement in cyberloafing so that they come up with the ways of addressing a highly significant social problem such as suicide. It is necessary to stress the fact that the activity of cyberloafing, if within certain limits and a certain framework, can become a mechanism used to derive positive outcomes.

6. Conclusion

The purpose of this study was to determine whether some forms of social isolation, and domestic violence would increase the feeling of contemplating suicide or, on the other hand, if the magnitude of such ideations arising from the same factors would be reduced by cyberloafing. The researchers took 467 samples of the individual with suicidal tendency and ideation, subjected it to inferential statistical methods, and interpreted the data. Findings from the results showed that social isolation and domestic violence are the two main reasons that result in suicidal ideation. The problem of domestic violence has, however, become more rampant with the extended family, whereby women have become the most vulnerable victims of domestic violence. Cyberloafing was found to moderate the relationship between social isolation and domestic violence with suicidal ideation. These findings are valuable as they suggest that social isolation, and domestic violence, are manageable factors contributing to suicide risk. By providing appropriate attention and implementing institutional interventions, the issue of suicide can be effectively addressed. Similarly, cyberloafing can be considered for mitigating suicidal thoughts effectively.

7. Limitations and future research directions

Despite its significance the study is not free of limitations. Firstly, the study relies on cross sectional data which limits the ability to establish causal relationship between variables. Future research can use longitudinal data to analyze causal relationship and temporal effect. Secondly, data was collected from a specific population in the northern belt of Pakistan with particular socio-economic composition. These characteristics may limit the generalizability of the findings. Future research should examine the relationships in diverse settings including the contexts with different cultural compositions and economic standings. Thirdly, the study relies on self-reported measures, which may be affected by social desirability bias or inaccuracies in responses. Future research could incorporate objective measures such as behavioral tracking of cyberloafing activities or clinical assessment of suicidal ideation to complement self-reported data. Additionally, the study focused on two primary stressors i.e. social isolation and domestic violence as the predictor of suicidal ideation. However, there will be other stressors that profoundly cause suicidal ideation including economic problems, workplace inconveniences, and mental disorders. Future studies could investigate the role of cyberloafing in minimizing suicidal ideation resulting from broad range of stressors. Finally, the study takes cyberloafing as a coping mechanism while neglecting the potential negative impacts of excessive or unregulated cyberloafing. Future study could examine the dual nature of cyberloafing, exploring both its positive and negative effects on employees' well-beings.

CRediT authorship contribution statement

Rui Yan: Validation, Supervision, Software, Resources, Project administration, Methodology. Muhammad Adnan: Visualization, Validation, Supervision, Resources, Methodology, Data curation. Ammar Ahmed: Writing – review & editing, Writing – original draft, Visualization, Validation, Formal analysis, Conceptualization. Rana Tahir Naveed: Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. Warda Naseem: Validation, Software, Resources, Project administration, Methodology, Investigation. Volkan Çakir: Writing – review & editing, Writing – original draft, Resources, Funding acquisition, Conceptualization.

Informed consent statement

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

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Declaration of competing interest

The authors declare no competing interests.

Data availability

Data will be made available on request.

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