Perceived Stress as a Stimulant of Social Undermining in the Virtual Workplace: A Serial Mediation Model

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ABSTRACT

Interpersonal disagreement among employees in the workplace is an important predictor of perceived stress, especially in virtual and digitally connected workplaces. Such perceived stress has the potential to lead employees toward social undermining. This study is quantitative in nature, and data were collected from various organizations primarily relying on information and communication technology (ICT)-based systems. The study aimed to test a serial mediation model containing task conflict and relationship conflict as serial mediators. Statistical analysis reveals a significant indirect effect on the outcome variable of social undermining through the serial mediators. The PROCESS Macro version 3.3 was utilized for the analysis of hypotheses. Discussions have been framed with reference to contextual factors, such as those within the mindfulness theory, and other elements that might have influenced the relationship between variables. This relationship between variables has not been previously tested on employees working in a virtual and digital setup, where psychological contracts also play a role in conflict generation and its handling, leading to associated job stress. Finally, this paper recommends useful directions for future research.

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INTRODUCTION

Disagreement among individuals in a team-based environment creates cognitive load for team members, making it challenging to separate personal priorities, emotional well-being, and task prioritization (Simons & Peterson, 2000). This difficulty results in task conflict leading to personal dislikes, workplace politics (Greer et al., 2008), and perceived threats to job security and competence (Tidd et al., 2004). Consequently, team-based and individual relationships may deteriorate, potentially culminating in social undermining. Mindfulness, focusing on the present scenario in a neutral manner, can mitigate negative interpersonal relationships, which may otherwise lead to deviant behavior (Wu et al., 2015). Conflicts arising from relationship issues in the workplace can negatively impact various aspects of teamwork. This, in turn, can increase individuals' perceived stress, exacerbating the extent of the social undermining factor. The current study is grounded in the explanations provided by mindfulness theory.

Social undermining in the workplace holds significance as individuals are influenced by social factors within organizations (Hershcovis, 2011). Employees striving to maintain meaningful relationships within a group may navigate moral issues based on their cognitive understanding, posing challenges in recognizing ethically advantageous approaches within policy. This scenario can lead to apparent pressure and social subversion in the group work environment, with perceived pressure serving as a
stimulus to various workplace health issues. However, not all stressors are perceived or predicted factors, as stress, per Lazarus and Folkman (1984), is a perception created in a situation or event surpassing an individual's coping cognitive resources. Additionally, relationship conflict can contribute to perceived stress among employees, highlighting how relationship struggles intensify stress and social subversion, particularly in the ICT sector. The current research addresses this by considering relationship conflict and task conflict as serial mediators in the relationship between perceived stress and social undermining. It is crucial to note that team mindfulness also has spillover effects on these constructs, with this study focusing on their dynamics linked to perceived stress and task conflict.

Mindfulness, as elucidated by Yu and Zellmer-Bruhn (2018), is characterized by a shared belief among team members that their interactions involve awareness, attention to present events, and experiential, nonjudgmental processing of within-team experiences. While previous scholarly literature often explored mindfulness at the intra-psychic level of the individual (Good et al., 2016) and for higher-level work practices meeting psycho-social expectations in the workplace (Sutcliffe et al., 2016), the authors assert that mindfulness serves as a safeguard against staggered conflict in work processes. Furthermore, mindfulness extends to explain collaboration as a component of social exchange in the workplace, establishing a link with social exchange theory (Karlin, 2018), social adaptability (Baron et al., 2018), social learning contributing to managerial knowledge (Cacioppe, 2017), the cultivation of efficiency-based mechanisms (Dietz et al., 2017; Simi et al., 2023), the ability to use multiple means (Turner et al., 2016), and turnover reduction (Hafenbrack et al., 2014). Both individuals and teams can learn and practice mindfulness (Good et al., 2016), and within organizations, mindfulness-based interventions can be applied at various levels (Sutcliffe et al., 2016).

For different individuals, the level of mindfulness may vary, influencing their perceived stress (Yu & Zellmer-Bruhn, 2018), yet its functional importance remains consistent across all levels (Good et al., 2016). This study examines mindfulness as a phenomenon occurring at the individual level within virtual teams. There are several reasons to consider individual conflict in the workplace in this study. For example, it is detrimental to teams when individuals' sense of uniqueness and specialness is challenged by other participants, even if they cognitively support themselves and perceive their thinking and reactions as correct based on their own cognitive interpretation (Johnson & Avolio, 2018). While task conflict may become beneficial to groups when tasks are clearer (de Wit et al., 2012; Jehn & Bendersky, 2003; Shaw et al., 2011), it can also become a source of relationship conflict (Maltarich et al., 2017; Gerpott & Kearney, 2017). Therefore, this study introduces the concept that relationship conflict is more challenging, as it can lead to deviant behaviors in individuals, such as social undermining and perceived stress. Additionally, the study explains how group care can better handle situations of relationship conflict (Davidson & Kaszniak, 2015).
The following were the objectives of this research:

1. To examine the impact of perceived stress on social undermining.

2. To assess the impact of task conflict and relationship conflict in the relationship of perceived stress and social undermining.

This study delved into various aspects of task conflict, relationship conflict, social undermining, and perceived stress for employees in ICT-based organizations (Boyle et al., 2017; Brisbon & Lachman, 2017; Rayan et al., 2017; Xu et al., 2017). Notably, no prior study has measured the relationship between these variables using the serial mediation model employed in this research, addressing a significant gap in the management literature. Furthermore, given the prevalence of modern virtual organizations, particularly those that became more commonplace post-COVID-19, which are primarily team-based and virtually connected, this study gains additional relevance. These virtual organizations, encompassing both small and large entities, heavily rely on the creativity of their employees, contingent upon intimate co-creation. However, perceived stress can impede such intimate co-creation-based associations, especially at the dyadic level (Paul et al., 2018; Shahzad & Ishaque, 2021). Thus, the study focuses on employees working in virtual teams, recognizing that many such teams are globally connected through digital means, such as software houses. Notably, individuals in virtual work environments, constructing and representing smaller teams or entire organizational functional domains (as seen in the online freelancing industry), have been rarely studied in the past. This unique context serves as a major motivation for this study, alongside examining the relationships between the variables under investigation.

LITERATURE REVIEW

Employees' cognitive capacity varies concerning their mindfulness ability, often seen as a relational, aggregate, and intellectual characteristic that influences colleagues in groups and teams (Vogus & Sutcliffe, 2012). Group cohesiveness is a common perspective for individuals working together, fostering relational associations as colleagues engage in both formal and informal interactions (Bettenhausen & Murnighan, 1991). Group identity serves as a protective factor against negative relational associations in group dynamics. In the workplace, few employees willingly involve themselves in task or relationship conflicts. Workplace communication often remains intricate as colleagues exhibit joint interest in a particular task, requiring close supervision by leadership to manage this dynamic. Colleagues may become critical of others to protect their own position without considering the broader perspective of their teammates. However, it is not uncommon for individuals within a group to stay together in the long run, as critical cognitive processes significantly contribute to a group's performance and effectiveness (Weick & Roberts, 1993). According to Weick and Roberts (1993), collective interaction with shared understanding to act decisively for the group significantly contributes to both group and team mindfulness. Due to the positive feedback from colleagues within a specific setup, team association serves as a motivational factor for those working together, particularly on tasks of mutual interest (van Knippenberg et al., 2013).
Karlin (2018) emphasizes that cognitive ability empowers individuals to gain a superior and more insightful perspective on the surrounding environment, particularly within a team or group context. This enhanced cognitive capacity aids decision-making in a collectively oriented environment, fostering increased connection and awareness regarding current perspectives and group requirements (Sell, 2018). According to Baron et al. (2018), how individuals respond to changes in external stimuli is another element of mindfulness within a team. In the dynamics of group mindfulness, individuals remain engaged in collective efforts. Thus, to enhance cognitive capacities crucial for routine organizational activities, cognitive functions serve as a positive intervention for employees' interpersonal communication and individual perception. Although mindfulness is fundamentally an individual-level phenomenon (Hulsheger, 2015; Yu & Zellmer-Bruhn, 2018), human resource analysts often focus on understanding how mindfulness operates at the team and group levels. This individual-level focus acknowledges the role of cognitive functions as a facilitator for improved relational communication and individual perception, contributing positively to the dynamics within teams and groups.

According to Marks et al. (2001), individual’s cognitive focus is linked to emerging states and strategies because emerging states are the result of gathering correspondence and the perceived resultant impact following its affiliations (van Knippenberg et al., 2013). According to Carter et al. (2017), mindfulness at the team level is a typical property of group experience that distinguishes it from individual’s mindfulness. According to Morgeson and Hofmann (1999), typical mindfulness models include both the individual and group levels of analysis, but their creation differs. They recommended two natural substance aspects of it including: present focused attention and consciousness about what is happening and present focused attention and consciousness about what might happen in the near future based on current scenario.

A kind of receptive, open minded and self-controlled mindfulness is also regarded as a concept of Budist origin which is getting practical application at the workplace as well. Some exercises to calm to body and mind such as Yoga also have a strong linkage with the mindfulness. Therefore, in team mindfulness, labeling the events and sudden impulsive response is not recommended as the individuals become able to analyze not only the event at present but the impulse it is creating for them and this may have an impact on the right decision-making process (Good et al., 2016). This may also involve many other positive and negative dimensions of thought processing (Weick & Putnam, 2006). While individual mindfulness focuses more on the interpersonal relationships (Brown & Ryan, 2003), and it also is a kind of practice that individuals have to follow (Glomb et al., 2011). It is a kind of meditation as well where situation and events are thought to be under the control of conscious thinking of an individual (Good et al., 2016). Individual mindfulness is the phenomenon applicable to individuals and it manifests through the actions and behaviours of an individual (Davidson, 2010). Mindfulness theory emphasizes on two aspects. These include cognitive aspect and the affective functions (Good et al., 2016). It is often taken as a construct that reduces negative emotions and mindfulness acts as a positive factor for team’s performance.
Jehn (1995) recommended that conflict within a team and among the teams is often created by colleagues’ having contrary socio-cognitive qualities and its force might be distinctive for conflict on the task and for relationship related struggle. Undertaking a conflict includes conflict over a particular approach, system and circulation of work while the relationship conflict basically gets produced because of the differences of individual qualities and insights at the working environment. De Dreu and Weingart (2003) expressed that conflict on a particular task may regularly occur because of conflict over undertakings and on occasion, it might upgrade the level of intensity at the work environment as actors of conflict frequently acknowledge the difficult results of their task or relationship conflict. Conflict in relationships creates so many social complexities as well (de Wit et al., 2012). Job related conflict and conflict to maintain relationship are generally related (Greer et al., 2008). However, relationship conflict often remains part and parcel of the team-based working environment (Todorova et al., 2014). As a result, the conflict in relationship frequently has negative consequences and is more dependent on the goals, will, people's relational connections and intellectual characteristics (de Wit et al., 2012).

Emotions generated by a workplace conflict determine whether the conflict's outcomes are positive or negative (Weingart et al., 2015). Positive emotions at work increase employee satisfaction (Todorova et al., 2014), and thus cooperation within team improves (Ayoko et al., 2008). Negative emotions reduce individual and team performance and more often, the interpersonal relationships are also destroyed. This aggravates conflict in relationship (Weingart et al., 2015). Similarly, emotional factors contribute to the relationship conflict as well (Jehn et al., 2008). Harmful feelings are generated upon development of negative cognitive bias by the individuals, according to conflict expression theory (Todorova et al., 2014). Members may adopt a defensive posture that conveys confusion, bouts, or threats (Weingart et al., 2015). According to Bradley et al. (2015), an individual's level of oppositional intensity and perception of conflict may differ from the team’s overall position on the same stance. Conflicts can be handled more effectively with a present-oriented focused approach, experience, and nonjudgmental mindfulness behavior (Good et al., 2016).

Relationship conflict is frequently reduced by a balanced execution of team mindfulness and task conflict (Yu & Zellmer-Bruhn, 2018). Task conflict, for example, increases workers’ intellectual burden, making task conflict enhancement difficult to distinguish from individual relationship conflict enhancements (Simons & Peterson, 2000). As a result, groups may interpret task related interpersonal differences as an individual’s preference or aversion (Greer et al., 2008), or as a capacity appraisal, shifting the focus from task to relationship conflict (Tidd et al., 2004). Increased amount of workplace conflict also adds to the changes in the group dynamics (Choi & Cho, 2011), which reduces people's perceptions of their susceptibility to unexpected outcomes (Tsai & Bendersky, 2016). As per Weingart et al. (2015), task difficulty also has a group level interpretation in the members based upon which group cohesion gets impacted.
Mindfulness improves employees' agility at work in a dynamic way (Smallwood & Schooler, 2015). It averts cognition about irrelevant developments (Morrison et al., 2013; Slagter et al., 2011), basic mistakes, and limited experiential handling are more uncertain (Glomb et al., 2011), for groups to have helpless attribution blunders and correspondence predisposition in such a way that individual and task improvements remain isolated (Hopthrow et al., 2017), and exceptional group abilities are less likely to be perceived as personal. Mindfulness improves relationship and hence it is also a pleasing strategy for reducing personalization and reaction in group settings (Good et al., 2016), lowering the likelihood of relationship conflict in the workplace (Amason & Sapienza, 1997). Transparency allows for contrast while avoiding antagonism (Jehn, 1995).

People's behaviour regarding conflict is caused by opposing relational connections (Wu et al., 2015). As a result, conflict in group relationships may exacerbate the effects of social subversion at work. Social subverting, according to Duffy et al. (2002), is a behaviour intended to impede a worker's ability to establish and maintain positive interpersonal relationships, work-related success, and a favorable reputation. Social sabotage and relationship conflict are also influenced by the social environment (Hershcovis, 2011). Disavowing allures in order to maintain credible relationships requires effort, making associates having lesser relationship conflict prepared to see contrarily and proficiently deal with ethical matters in order to respond in ethically appealing behaviors. This reduces the task related conflict as well.

Relationship conflict cannot always be categorized as dissident because experiential dispensation upsets reflexive conclusion (Chaiken, 1980). Heppner et al. (2017) explained that experiential handling cushions negative passionate responses that may create social difficulties and permits increasingly fast recuperation like in a relationship conflict. Groups, teams and individuals with mindfulness are more loath to engage in relationship related conflict, so the present focused thought makes people dynamically aware of conditions that makes them more eligible (Simons & Peterson, 2000). All in all, mindfulness at individual or team level alleviates tendencies toward hostility (Krishna & Robinson, 2015), anger (Wright et al., 2009), and infectious aggression (Good et al., 2017). However, it still remains to be seen that how mindfulness acts on perceived stress of employees who are working in virtual workplace.

Perceived stress is thought to be a predictor of many health-related complications both in the individuals and teams. Stress is associated with changes in discernment, practices, and feelings. According to Lazarus and Folkman (1984), work-related pressure or in other words, the perceived stress is the realization that a situation or event outnumbers adapting resources. Mindfulness can help in expanding one’s capacity particularly in dealing with relationship related conflict. As rehearsing the mindfulness can help in expanding the empathic concern and leads to a superior connection between individuals (Reb et al., 2014). The timing of mindfulness reflection begins by making aim as it takes into consideration the needs to stay in present oriented scenario for reducing the perceived stress, conflict and social undermining (Tan, 2012; Baer 2014; Miller et al. 1995).
Theoretical Framework

Mindfulness theory is an evolving underpinning approach used in research studies that has two dimensions which include cognitive dimension and affective functions (Good et al., 2016). These may potentially explain the processes occurring during task conflict or a relationship conflict. Therefore, conflicts explain valuable torment for the functions and meaningfulness at the workplace for different outcomes and performance. Other theories like organizational conflict theory and cognitive models such as Ernest and Corral’s model may also explain this proposed relationship of variables to some extent. According to conflict expression theory, “negative emotions are activated when conflict is perceived as having oppositional intensity” (Todorova et al., 2014, P. 14). However, mindfulness theory not only explains perceived stress with reference to task conflict but the cited literature in this study has also discussed its spillover effects for relationship conflict as it gets generated from task conflict just like it has been shown in this research model (see figure 1). Hence, this model has been structured to examine the serial mediation of task conflict and relationship conflict with reference to the relationship of perceived stress and social undermining.

Research Model

![Proposed Research Model of the Study](image)

Taking on the mindfulness theory as the overarching theory for this conceptual model, following hypothesis have been developed for this study.

**H1:** Perceived stress positively impacts the social undermining of employees.

**H2:** Relationship between perceived stress and social undermining is positively mediated by task conflict.

**H3:** Relationship between perceived stress and social undermining is positively mediated by relationship conflict.

**H4:** Relationship between perceived stress and social undermining has positive sequential mediation effect through task conflict and relationship conflict respectively.
RESEARCH METHODOLOGY

This was a quantitative study that used hypothetic deductive approach. With a positivistic research paradigm, researcher tried to observe social factors as they are without any personal interference in this explanatory study. Due to diverse occurrence of respondents, non-probability purposive sampling was used for data collection. Data was collected from the employees of virtual teams from those organizations where colleagues were either virtually connected or they working in an ICT based organization. Quantitative data was primarily collected from software houses and an ICT based university in Pakistan. Few other digital freelance companies were also approached for data collection. Unit of analysis was individual employee working in the virtual / digital setup. The current study was a one-shot cross-sectional study due to limitations of time and resources.

For this research paper, quantitative data through survey has been gathered from 230 respondents. Data assortment was done through survey and online data collection. Additionally, an email link was sent to the likely respondents and preceding that, they were informed with regards to the survey. For such a scenario, where researcher’s judgment becomes important for sample selection, purposive sampling remains an effective option and hence, was utilized in this case. Overall, population of virtual workers working in different organizations and as self-employed digital freelancing companies is huge and that’s why, sampling was done to make an effort for measuring population characteristics. The survey was sent to 326 respondents, with 230 filled it out generating a response rate of 71%. The data collected was coded and entered into SPSS version 23. Skewness and Kurtosis values were used to check for data normality. Data was found to be normal with bell shaped curve. Sample size was 1:5 ratio for five respondents for one item. All scales were adopted and this has been mentioned.

Descriptive statistics including mean and standard deviation values were obtained. Pearson correlation analysis (one tailed) was obtained through SPSS version 23 and interpretation of obtained statistics was done. For testing the effect of serial mediation of variables, Process Macro version 3.3 by Preacher and Hayes was used with the appropriate standards. Model 6 of Process Macro was used for testing the effect of serial mediation of variables.

All the measurement scales were the adopted ones. Measurement scale of perceived stress was adopted from Sheldon et al. (1988) and it has 12 items. A four-item Pearson, Ensley, and Amazon’s (2002) measurement scale was used to assess task conflict. Pearson, Ensley, and Amason's (2002), 5-item measurement scale was used to assess relationship conflict. For social undermining, a 13-items measurement scale was used by Duffy et al. (2002).
RESULT AND DISCUSSION

Data Cleaning

Once the data was coded and entered in in SPSS version 23, first step after coding was to assess the face value of data and to see its missing values. Overall missing values were less than five percent and those missing values of different items were replaced with the serial mean value of those items as a rule of thumb. After replacing the missing values, normality of data was ensured through univariate and multivariate data normality tests. Tests such as skewness, kurtosis, helped in determining the normality of data. Reliability analysis of the measurement scale was done and Cronbach Alpha values were found to be satisfactory and above 0.7 level for each variable. Similar to Cronbach's alpha, average composite reliability, measures the internal consistency of a measurement scale (Netemeyer, 2003). SPSS was used to determine the average composite reliability of the measurement scale in this case.

Table 1: Reliability Analysis

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.765</td>
<td>34</td>
</tr>
</tbody>
</table>

Table 2: Descriptive Statistics of Variable

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>pStress</td>
<td>230</td>
<td>1.08</td>
<td>4.00</td>
<td>2.3638</td>
<td>.58042</td>
<td>-.083</td>
<td>.160</td>
</tr>
<tr>
<td>tConflict</td>
<td>230</td>
<td>1.50</td>
<td>4.00</td>
<td>3.0248</td>
<td>.51474</td>
<td>-.296</td>
<td>.160</td>
</tr>
<tr>
<td>rConflict</td>
<td>230</td>
<td>1.20</td>
<td>4.40</td>
<td>3.1608</td>
<td>.57259</td>
<td>-.503</td>
<td>.160</td>
</tr>
<tr>
<td>sUndermng</td>
<td>229</td>
<td>1.15</td>
<td>3.54</td>
<td>2.7459</td>
<td>.42346</td>
<td>-.837</td>
<td>.161</td>
</tr>
<tr>
<td>N (listwise)</td>
<td>229</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As a general rule, values between +2 and -2 are considered acceptable. For Z score of data normality, there was one value above the threshold level of 2.5 in relationship conflict. So, that case was removed.

Almost all the histograms showed a normal pattern of data. It is also important for data cleaning to run the test of Mahalanobis distance for identifying and removing the multivariate outliers. As a rule of thumb, values greater than 20 are removed from a variable as a result of the Mahalanobis distance test. The obtained Mahalanobis distance values had no significant outliers as this test generally comes non-significant in IBM - AMOS and remains significant in software such as Smart PLS. So, based on the data cleaning steps outlined above, additional tests were run in SPSS for further data analysis.
Correlation of Variables

Table 3: Pearson Correlation Values of the Variables

<table>
<thead>
<tr>
<th></th>
<th>pStress</th>
<th>tMindfulness</th>
<th>tConflict</th>
<th>rConflict</th>
<th>sUndermining</th>
</tr>
</thead>
<tbody>
<tr>
<td>pStress</td>
<td>Pearson Correlation 1</td>
<td>Sig. (1-tailed)</td>
<td>N 230</td>
<td>Pearson Correlation .053</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>sig. (1-tailed)</td>
<td>N 230</td>
<td>Pearson Correlation -.308</td>
<td>.550</td>
<td>.549</td>
</tr>
<tr>
<td>tConflict</td>
<td>Sig. (1-tailed)</td>
<td>N 230</td>
<td>Pearson Correlation .030</td>
<td>.337</td>
<td>.337</td>
</tr>
<tr>
<td>rConflict</td>
<td>Sig. (1-tailed)</td>
<td>N 230</td>
<td>Pearson Correlation .326</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>sUndermining</td>
<td>Sig. (1-tailed)</td>
<td>N 229</td>
<td>Pearson Correlation .264</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

Correlation values indicate the direction and strength of each variable in the study in relation to another variable. Values of correlation range between $r = -1$ to $+1$. The more a value of $r$ between two variables is towards $-1$, the more negative relationship of variables exists and vice versa. Task conflict has lowest $r$ value of 0.337 with social undermining. With the relationship conflict, social undermining had the highest $r$ value of 0.441.

Use of Hayes Process Macro for Testing Direct, Indirect and Total Effects

Hayes Process Macro version 3.3 was plugged in the SPSS 23 for using it to examine the significance of the indirect effect of serial mediation variables for this model. Following results were obtained.

Table 4: Summary of Regression Effects

<table>
<thead>
<tr>
<th>R</th>
<th>R$^2$</th>
<th>MSE</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>.33</td>
<td>.11</td>
<td>.74</td>
<td>28.14</td>
<td>1.00</td>
<td>227.000</td>
<td>.00</td>
</tr>
</tbody>
</table>

Table 4 shows the impact of perceived stress on task conflict. R-square value (.11) is reasonable with 11% change caused in task conflict due to perceived stress. F value of 28.14 shows that there is significant mean difference that explains that relationship of IV with DV. Higher value of F (28.14) is a sign of rejection for null hypothesis. P value is significant at 95% confidence interval which is .00 < 0.05.

Table 5: Summary of Direct Effect

<table>
<thead>
<tr>
<th></th>
<th>coeff</th>
<th>se</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULC</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>4.64</td>
<td>.23</td>
<td>19.37</td>
<td>.00</td>
<td>4.17</td>
<td>5.11</td>
</tr>
<tr>
<td>pStress</td>
<td>-.52</td>
<td>.098</td>
<td>-5.30</td>
<td>.00</td>
<td>-.71</td>
<td>-.32</td>
</tr>
</tbody>
</table>
Other values in table 5 are showing that the two variables have a positive relationship with each other in a way that if perceived stress increases, the task conflict also increases as well. Other critical values of the model are \((b = -0.52, SE = 0.098, t = -5.30, p = 0.00)\).

**Table 6: Summary of Regression Effects**

<table>
<thead>
<tr>
<th>R</th>
<th>R²</th>
<th>MSE</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.552385</td>
<td>0.305130</td>
<td>.23</td>
<td>49.62</td>
<td>2.0</td>
<td>226.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Table 6 shows the impact of perceived stress and task conflict on the relationship conflict respectively. The regression values of perceived stress on relationship conflict have shown a significant relationship \((b = -0.14, SE = 0.058, t = -2.43, p = 0.01, CI has 0 outside the upper and lower bound confidence interval).****

**Table 7: Summary of Direct Effect**

<table>
<thead>
<tr>
<th>coeff</th>
<th>se</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>2.45</td>
<td>0.217</td>
<td>11.25</td>
<td>0.00</td>
<td>2.02</td>
</tr>
<tr>
<td>pStress</td>
<td>-0.14</td>
<td>0.058</td>
<td>-2.43</td>
<td>0.01</td>
<td>-0.25</td>
</tr>
<tr>
<td>tConflic</td>
<td>0.30</td>
<td>0.036</td>
<td>8.30</td>
<td>0.00</td>
<td>0.23</td>
</tr>
</tbody>
</table>

Similarly, there is a significant relationship of task conflict and relationship conflict. Values are \((b = 0.30, SE = 0.036, t = 8.30, p = 0.00, CI has 0 outside the upper and lower bound confidence interval).****

**Table 8: Summary of Regression Effects**

<table>
<thead>
<tr>
<th>R</th>
<th>R²</th>
<th>MSE</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.48</td>
<td>0.23</td>
<td>0.13</td>
<td>22.60</td>
<td>3.00</td>
<td>225.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Table 9: Summary of Direct Effect**

<table>
<thead>
<tr>
<th>coeff</th>
<th>se</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>1.35</td>
<td>0.21</td>
<td>6.39</td>
<td>0.00</td>
<td>0.93</td>
</tr>
<tr>
<td>pStress</td>
<td>0.11</td>
<td>0.045</td>
<td>2.58</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>tConflic</td>
<td>-0.047</td>
<td>0.032</td>
<td>-1.44</td>
<td>0.14</td>
<td>-0.11</td>
</tr>
<tr>
<td>rConflic</td>
<td>0.40</td>
<td>0.051</td>
<td>7.78</td>
<td>0.00</td>
<td>0.30</td>
</tr>
</tbody>
</table>

Table 9 shows the results of regression analysis on social undermining. P value of all the variables shows that they have a significant relationship with outcome variable of social undermining and is significant, i.e., \(p < 0.05\), only except task conflict which is \(p = -0.11 > 0.05\). Upper and lower bound confidence interval shows the same effect of non-significant relationship of task conflict and a significant relationship of all other variables with the social undermining.

**Table 10: Summary of Total Effect**

<table>
<thead>
<tr>
<th>Effect</th>
<th>se</th>
<th>t</th>
<th>p</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>.11</td>
<td>0.045</td>
<td>2.58</td>
<td>0.01</td>
<td>0.028</td>
<td>0.20</td>
</tr>
</tbody>
</table>
Table 11: Summary of Indirect Effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>BootSE</th>
<th>BootLLCI</th>
<th>BootULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>-.097101</td>
<td>.033445</td>
<td>-.168477</td>
</tr>
<tr>
<td>Ind1</td>
<td>.024904</td>
<td>.019986</td>
<td>-.011916</td>
</tr>
<tr>
<td>Ind2</td>
<td>-.057224</td>
<td>.030994</td>
<td>-.124023</td>
</tr>
<tr>
<td>Ind3</td>
<td>-.064780</td>
<td>.018331</td>
<td>-.106499</td>
</tr>
</tbody>
</table>

From the table 10, it can be observed that total direct effect on the outcome variable of social undermining from perceived stress is 0.11. So, 11% change in social undermining is explained directly by perceived stress. Standard error is not so high. T value is significantly away from 0 which enhances the probability of rejecting null hypothesis. P value is also significant at 95% confidence interval and is below the cutoff value of 0.05. Bootstrapping was done at 5000. Overall direct effect values ($R^2 = 1.18$, SE = .04, $t = 2.58$, $p = 0.01$) show that there is a significant relationship between perceived stress and social undermining of employees. Hayes (2013) recommended that regression coefficients in process models are all the times unstandardized coefficients as standardized coefficients don’t provide sufficient interpretation. Furthermore, the value of zero (0) is outside the upper and lower bound confidence interval values. This further proves that the hypothesis 1 is correct. Hence, the first hypothesis that perceived stress positively impacts on social undermining.

**Indirect Effect of Task Conflict**

The value of indirect effect is .02 as shown in table 11. Bootstrap standard error value .019. However, null value (0) falls in between upper and lower bound value of 95% confidence interval. Which shows that the second hypothesis is not supported as the indirect mediating effect of task conflict is not significant.

**Indirect Effect of Relationship Conflict**

The value of indirect effect is -.05 as shown in table 11. Bootstrap standard error value .03. However, null value (0) falls outside the values of upper and lower bound value of 95% confidence interval. Which shows that the third hypothesis is supported as the indirect mediating effect of task conflict is significant.

**Serial Mediation Effect of Task Conflict and Relationship Conflict**

The value of indirect effect of both the mediating variables is -.06 as shown in table 11. Bootstrap standard error value .01. However, null value (0) falls outside the values of upper and lower bound value of 95% confidence interval. Which shows that the fourth hypothesis is supported as the indirect mediating effect of task conflict is significant.
The theoretical significance of this study is noteworthy, particularly in the context of mindfulness theory and social exchange theory, which allows for a nuanced exploration of the dimensional impact of cognitive and affective dimensions (Good et al., 2016). These dimensions contribute to the understanding of both task conflicts and relationship conflicts, shedding light on the intricacies of positive behaviors in the workplace. Consequently, workplace conflicts serve as a valuable avenue for unraveling the mechanisms underlying conflicts in the workplace. In reference to the conceptual model employed in this study, team mindfulness emerges as a comprehensive explanatory framework for the results. The constructs examined, particularly in the unique context of employees working in virtual workplaces, contribute to the theoretical and contextual significance of this research. Notably, there is a dearth of studies on the virtual workplace, especially in emerging markets like South Asia and specifically for Pakistan, where primary data for this study was collected. This research, set in the post-COVID-19 era where virtual work is a reality, provides a valuable foundation for further empirical investigations in this domain. The study draws on the social learning theory to establish a theoretical underpinning, which holds promise for further exploration by future researchers.

Dynamics associated with new realities of work need to be understood by the practitioners as well. It is because the conflict orientation is widespread as part of the human nature. Not only the team workers but the supervisors may also find themselves in the situation of task and relationship conflict. It is important for them to realize that in virtual workplace, task and relationship conflict adds to the social undermining especially with the presence of perceived stress. This needs to be handled carefully for which managers need not only to observed the workplace but they should be able to design deliberate, timely and effective interventions. Additionally, task conflict prompts relationship struggles and surprisingly that might prompt apparent pressure at the overall working environment. Such factors might diminish the true presence of work objectives at the working environment. Shahzad (2018) clarified that manager must ensure procedural justice through their planned interventions especially in performance related issues. That can only happen if the level of conflict is kept in check. Such initiatives can resolve issues for managers in the virtual work environment. Leadership of such organizations may take the employees’ feedback for having policy measures to address workplace conflicts for better performance. The study provides valuable insights for practitioner on how to proceed organizational policies for reducing the level of perceived stress.
This study is a partial replication of an earlier study published in Academy of Management Journal (i.e., Yu & Zellmer-Bruhn, 2018). However, the added value was a different context of virtual teams and introduction of another construct of perceived stress. A limitation of this research is that it is a cross-sectional study. Future studies could put this model to the test in a variety of settings and areas, preferably over a long period of time. Furthermore, future scholars may investigate any part of this model that has not been addressed in this research. For example, it is not yet clear that how groups level perceived stress adds to group conflict and social undermining. (Carter et al., 2017). For such studies, multilevel and longitudinal studies are recommended.

The study's findings imply that social undermining among workers is influenced by perceived stress, and that job and interpersonal issues also have an impact on this relationship. Prioritizing stress reduction strategies, such as well-being programs, can help organizations lessen the likelihood of social undermining. Conflict resolution training may also be helpful in resolving problems related to tasks and relationships, providing a thorough strategy for promoting a more positive work environment. Understanding the sequential mediation effect highlights the need for sophisticated approaches that deal with stress, conflict, and interpersonal dynamics all at once, enabling businesses to foster a more encouraging and cooperative work environment.

The current research was a cross-sectional study and was conducted on the employees of only ICT based organizations from Pakistan. However, the constructs under study have a much broader application at the psycho-social level. Therefore, future researchers may want to replicate this research in different sectors, cultural and organizational contexts. As this was a cross-sectional study; hence, the generalizability of the study was limited. Future researchers may want to conduct this kind of research on a time-lagged or longitudinal design. Furthermore, it may not just be the indirect mechanism of serial mediation effect on social undermining; but the direct association of these constructs is also possible that needs to be examined by the future researchers through multiple other contexts and theoretical explanations.

CONCLUSION AND POLICY IMPLEMENTATION

From the current study, it can be concluded that mindfulness intervenes the connection between task conflict and relationship conflict. In essence, relationship conflict and task conflict serve as serial mediators between the aforementioned predictor and outcome variable. However, for the context of virtual work teams, relationship conflict does not play a mediating role between perceived stress and social undermining. It may be expected to the reason that individuals at time engage themselves in task related conflict to address the need for work related prestige and self-worth. Hence, they don’t at times agree that task conflict leads them to social undermining even with the contingent effect to relationship conflict and same was examined this research. Thus, the factors of this research like task conflict, relationship related, and interpersonal pressure, mindfulness and social subverting can have mutual spillover impact on each other particularly with reference to virtual work teams. Critique and comments by contemporary scholars would be appreciated.
REFERENCES


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