

**How Abusive Supervision Affects Knowledge Hiding: The Roles Of Peer Ostracism And
Frequency Of Interaction**

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Abstract

Drawing on social learning theory, this study aims to investigate the spillover effects of abusive supervision through third-party employees' (i.e., peers') mistreatment actions toward victims. This paper also argues that third parties learn mistreatment behaviors from abusive leaders and then themselves impose peer ostracism on victims, thereby positively affecting victims' knowledge-hiding behavior. To test the proposed hypotheses, the data were collected at three time points separated by one month to neutralize any threat of common method bias. The final sample of 635 valid responses was analyzed using regression analysis. Results showed that abusive supervision is positively related to peer ostracism, which is further positively related to employee knowledge hiding. Also, the frequency of interaction moderates the direct relationship between abusive supervision and peer ostracism and the indirect relationship between abusive supervision and knowledge hiding through peer ostracism. Unlike most of the previous investigations that have focused on the relationship between abusive supervision and knowledge hiding, this research contributes to the abusive supervision literature by highlighting a social learning process of third-party peer mistreatment, suggesting a spillover channel of abusive supervision on the victim's knowledge hiding behavior.

Keywords: Abusive supervision, Peer ostracism, Knowledge hiding, Frequency of interaction, Social learning theory

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Supervisors are responsible for about 75% of mistreatment in the workplace, targeting their subordinates (Hoel and Cooper, 2000). Researchers use the term "abusive supervision" to characterize the behavior of supervisors who exhibit abusive tendencies such as angry outbursts, threats, and public humiliation, whereby subordinates' perception of supervisors' involvement "in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact" (Tepper, 2000, p. 187). The adverse effects of abusive supervision on employees are clear and direct, including decreased creativity, increased job strain and psychological stress, and diminished emotional exhaustion and job performance (see Tepper *et al.*, 2017).

Abusive supervision has effects that extend beyond its targeted victims. When other employees witness the abusive behavior of supervisors, there is a risk of spillover effects of mistreatment behaviors within the organization (Priesemuth *et al.*, 2014; Qiao *et al.*, 2019; Zhang and Liao, 2015). Employees who witness the abusive supervision of other workers are considered third-party employees (Priesemuth, 2013). Researchers assumed various perspectives to understand the mechanism related to abusive supervision and how third parties respond when they observe abusive behavior toward their peers. When third-party employees observe their supervisor mistreating their peers, they may feel anger due to the unjust nature of the behavior (Greenberg and Cropanzano, 2001) or, on the other hand, they may feel satisfaction when they think that the victim deserves it (Mitchell *et al.*, 2015). The studies implicitly assume that third-party employees' emotional reactions and attitudes are passive *reactions* resulting from their peers' abusive supervision (Zoghbi-Manrique-de-Lara and Suárez-Acosta, 2014).

This study offers a different perspective on the *reaction*-assumption of the third-party perspective, proposing that the actions of third-party employees may be influenced by witnessing abusive supervision rather than being simply a passive response to abusive supervisors. That is, third-party employees learn their mistreatment behavior from the abusive supervisor as a result of social learning. Previous studies have shown that individuals learn aggressive behaviors from a role model in a social setting. For example, According to Goldstein's (1975) research, individuals in high-status positions who exhibit aggressive behaviors significantly influence the similar behaviors of others. From the social learning perspective, Liu *et al.* (2012) found that abusive supervision is transmitted through organizational levels, from the department manager to the team leader. In line with this reasoning, this research argues that third-party employees not directly involved can witness and replicate the abusive actions of their supervisors. This means that these employees adopt the idea of mistreatment towards colleagues from observing abusive supervision, which they then exhibit toward the target. Consequently, despite holding similar positions within the organization, abusive treatment by supervisors towards a specific individual results in disparities in social standing within the workplace (the victim holds a lower social status) (Ogunfowora *et al.* 2019). Third-party employees may observe the cues related to status disparities, increasing the likelihood of mistreatment towards their colleagues. Peer ostracism, a prevalent form of peer mistreatment, is a result of abusive supervision, in which employees marginalize the individual by failing to provide them with adequate attention and consideration, even when it would be customary or appropriate to do so (Williams, 2007).

When faced with abusive supervision and mistreatment from colleagues, employees may not all react in the same manner. This is because people develop an understanding of negative occurrences and their impact on themselves due to the interactions between supervisors and colleagues (White, 1959). Depending on their frequency of interactions, people show outcomes accordingly. Frequency of interaction, conceptualized as the extent to which peers and supervisors interact with one another (Fonner and Roloff, 2010), is an important resource that helps individuals understand the work environment, even in constrained situations (Bateman and Crant, 1993; Kim *et al.*, 2005). In the context of abusive supervision and peer mistreatment, frequency of interaction as an attribute of communication may mitigate the negative impact. This study explores the extent to which frequency of interaction determines the magnitude of peer mistreatment caused by supervisor abuse and ultimately leads to knowledge hiding by victims.

This research makes four important contributions to the literature. First, it provides a theoretical basis for and conducts an empirical test of how abusive supervision negatively impacts the mistreatment of a victim by third-party employees. So, it contributes to the theoretical understanding of detrimental outcomes associated with abusive supervision through a social learning perspective, which responds to Mitchell *et al.* (2012) call to focus more on third-party employees. Second, it expands the existing body of research on abusive supervision by emphasizing the distinctive impact of witnessing abusive supervision on ostracism behavior toward victimized employees. This research contributes to the existing body of research on the factors leading to peer ostracism (Christensen-Salem *et al.*, 2020). Third, this research empirically examines the positive relationship between abusive supervision and knowledge-hiding behaviors of subordinates. Earlier research was mostly focused on the association between abusive supervision and knowledge-sharing behaviors (Kim *et al.*, 2016; Lee *et al.*, 2017; Wu and Lee, 2016), which is distinct from knowledge-hiding behavior (Connelly *et al.*, 2012) in terms of motivation and intention of subordinates. Fourth, it integrates a communication factor, i.e., frequency of interaction, that may alter the abusive supervision's spillover effects on knowledge hiding through third-party peer mistreatment. Therefore, this research contributes to the literature on workplace mistreatment by showing the importance of considering significant boundary conditions that influence employees' responses to abusive behavior from supervisors (Fig. 1).

Theoretical Background And Hypotheses Development

Abusive Supervision, Peer Ostracism, and Knowledge Hiding

According to the social learning theory, individuals can acquire social behaviors by observing and imitating the behaviors of significant social contacts who serve as role models (Bandura and Walters, 1977). Through observational learning, individuals assess the modeled behavior based on its perceived consequences and determine which actions are encouraged or acceptable in a particular context (Trevino *et al.*, 2000). In an organizational setting, individuals in formal supervisor roles are commonly perceived as credible role models. Their actions serve as a key source of social learning for employees within the organization (Bai *et al.* 2019). Employees demonstrate tendencies to emulate both positive and negative behaviors exhibited by their role models. The research by Liu *et al.* (2012) and Mawritz *et al.* (2012) revealed a hierarchical cascade of abusive supervisory practices, wherein team leaders construed their managers' abusive behaviors as signaling that the mistreatment of subordinate peers was deemed acceptable or, to a degree justifiable within the workplace context.

Considering that coworkers are generally equal, third-party employees cannot assume a supervisory position in relation to the target individual. As demonstrated in prior research, employees subjected to abusive supervision exhibit aggressive behavior toward their colleagues (Tucker *et al.* 2010; Pradhan *et al.* 2019; Richard *et al.* 2018). Observing the abusive supervisor's behavioral cues, third-party employees may implicitly and indirectly learn that peer mistreatment is acceptable. This can manifest as ostracism, such as ignoring the target employee or maintaining silence, which involves the absence of a desired behavior. Exposure to abusive supervision by a leader can lead third-party employees to learn and subsequently emulate negative, mistreating behaviors towards the target employee. Due to the similarities in their positions within the organization, these third-party employees may choose to engage in peer ostracism as an outcome of their learning process. The supervisor may feel empowered as the rest of the peers appear to validate his/her abusive behaviors towards the target employee. Additionally, the supervisor's inaction or tolerance of the mistreatment by peers further solidifies the peer's harmful norm that the victim deserves such mistreatment from others. Therefore, this research proposes the following hypothesis:

Hypothesis 1: Abusive supervision has a positive direct relationship with peer ostracism

The relationship between peer ostracism, knowledge hiding, and their effects on employees' work attitudes and behaviors has received limited scholarly attention. Interactions and connections among peers at the workplace can significantly influence employees' work-related perceptions and actions. Peer interactions are critical to social dynamics within work environments to execute specific job responsibilities (Fatima *et al.*, 2024). The role of bad peer relationships due to negative learning from supervisors is paramount in the knowledge-hiding process (Kipkosgei *et al.*, 2020), and peer ostracism significantly hurts employee interpersonal interactions (Fatima *et al.*, 2019). Individuals seeking to protect their resources and maintain a sense of belonging may resort to knowledge hiding as a defensive strategy (Das *et al.*, 2018). This self-preservation mechanism can ultimately undermine the organization's overall knowledge ecosystem and impede its ability to adapt and thrive. Existing literature has explored the impact of abusive supervision on knowledge hiding (Pradhan *et al.*, 2019), but the specific relationship between peer ostracism and knowledge hiding remains largely unexplored. Understanding this dynamic is essential, as peer interactions can significantly influence employees' willingness to share knowledge.

On the other hand, peer ostracism is related to negative behaviors towards colleagues, such as interpersonal deviance (Jahanzeb and Fatima, 2018) and reduced helping behaviors (Chung and Yang, 2017). Employees are more inclined to share knowledge with peers with positive interpersonal relationships and a mutual sense of respect without encountering social exclusion within their organization (Kipkosgei *et al.*, 2020). Various motivational factors influence individuals' knowledge-sharing behaviors; however, this tendency will likely be diminished in the presence of peer ostracism (Thomas and Gupta, 2021; Takhsha *et al.*, 2020). Thus, when an employee experiences ostracism from their peers, they may feel ignored and excluded. In response, the employee will likely develop a negative relationship with their peers and engage in non-cooperative behavior towards them. Therefore, this research proposes the following hypothesis:

Hypothesis 2: Peer ostracism has a positive direct relationship with knowledge hiding

The Mediating Role of Peer Ostracism

Peer ostracism constitutes a violation of workplace norms of mutual respect (Ferris *et al.* 2017). Ideally, leaders who demonstrate positive leadership (e.g., transformational leadership or ethical leaders) would denounce peer ostracism as it is unethical and may incentivize employees to conceal knowledge from their peers (Christensen-Salem *et al.* 2020). However, when the supervisor engages in abusive behaviors towards subordinates, it is improbable that they would overtly condemn their peers' mistreatment of employees. Research has demonstrated that abusive supervision leads employees to perceive organizational status disparities (Ogunfowora *et al.*, 2019). Specifically, the abusive supervisor hints to third-party employees that the target employee has a lower status and is less valued by their peers. This leads third-party employees to the impression that mistreating a subordinate employee is common or even promoted within the organization (Mawritz *et al.*, 2012). As a result, these third-party employees join the abusive supervisor in ostracizing the victim employee.

Employees may ostracize their peers as a result of experiencing abusive supervision towards them. Abusive treatment of the victim by a supervisor suggests the victim is perceived to have lower value to the role model, leading peers to ostracize the victim. Also, Ostracism threatens the fundamental human need for belongingness (Walasek *et al.*, 2015; Peng and Zeng, 2017; O'Reilly *et al.*, 2015). Employees who are ostracized by their peers, such as ignoring their greetings and being excluded from group activities, may feel marginalized and question their belonging to the group (Jetten *et al.*, 2001). Hence, experiencing peer ostracism may undermine these individuals' sense of belonging within the organization. As a result, their diminished identification with the group will likely significantly diminish their engagement in their regular work duties (Liu *et al.*, 2016) and impede their commitment and involvement in the organization (Creasy and Carnes, 2017). Targeted employees experience a sense of being marginalized, characterized by feelings of inferiority, lack of value, and worthlessness. As a result, workers who face ostracism from third-party employees may be motivated to conceal certain valuable information needed to complete their duties. Therefore, this research proposes the following hypothesis:

Hypothesis 3: Abusive supervision has a positive indirect relationship with knowledge hiding through peer ostracism

The Moderating Role of Frequency of Interaction

The important factor that inflates the knowledge-hiding behavior among employees after experiencing abusive behavior is the frequency of interaction, defined as the degree to which employees in the organization communicate regularly and feel the obligation to attend meetings (Fay *et al.*, 2006). It is well known that regular interaction with abusive supervisors fosters a toxic environment, which further leads to decreased job satisfaction (Singh *et al.*, 2024) and increased stress (Rahman, 2024). The present study will examine whether the frequency of interaction may play a moderating role between abusive supervision and peer ostracism, thus exhibiting knowledge-hiding behavior. Furthermore, the frequency of interaction has been shown to open up the possibilities of adverse relationships among peers that enhance the negative effects of abusive supervision (Babalola *et al.*, 2022), which suggests it may also act as a moderator on the knowledge-hiding behavior. More evidence for this relationship is provided by Monteiro *et al.* (2008), who report that communicating regularly in an abusive environment enhances opportunities for peers to learn from their managers or supervisors and leads to more in-depth knowledge hiding from victim employees. So far, it remains unclear whether this construct also acts as a moderator of the direct relationship between abusive supervision and peer ostracism outcomes and the indirect

relationship between abusive supervision and knowledge-hiding behavior from victim employees. Still, this research predicts that a similar influence will be observed. Therefore, this research proposes the following hypotheses:

Hypothesis 4: Frequency of interaction moderates the positive relationship between abusive supervision and peer ostracism such that it is stronger under a stronger frequency of interaction

Hypothesis 5: Frequency of interaction moderates the positive indirect relationship that abusive supervision has with knowledge hiding (via peer ostracism) such that it is lower under a higher frequency of interaction

Methods

Sample and procedures

The data was collected using an online survey questionnaire on the Qualtrics platform and administered via the MTurk platform. Landers and Behrend (2015) raised a few concerns related to online platforms for data collection but also suggested that these platforms were “neither better nor worse than other more common convenient samples” (p. 21) and that “if we intend to create theory broadly applicable across organizational contexts, MTurk and similar samples may prove superior to those collected from single convenient organizations” (p. 18).

To reduce common method variance (CMV) (Podsakoff *et al.*, 2003), the data was gathered as time-lagged with three waves, and each wave was one month apart. At time 1, the participants responded on the items of abusive supervision and frequency of interaction, along with the control variables. At this time, 1000 responses were received. At time 2, after one month, the participants responded to the items of peer ostracism and received 822 responses. At time 3, after one month from time 2, the participants responded on the items of knowledge hiding and received 655 responses. Following the suggestions by Aguinis *et al.* (2021) and after matching the responses from three waves, the author received the final valid sample of 635 with a 63.50% response rate.

The mean age of the participants was 40.37 ($SD = 11.53$). Among the respondents, 245 (38.6%) were female, and 390 (61.40%) were male. Regarding education, 284 (44.7%) have a bachelor's. Regarding tenure in the organization, 185 (29.1%) have over 10 years of experience and tenure with a supervisor, 72 (11.3%) have over 10 years of experience. Supplementary Document 1 shows a detailed description of sample characteristics.

Measures

The scales used in this study are pre-established from the literature and have shown reliable validities. Also, the author used different Likert scales to give participants the comfort of sharing their responses with less range restriction (Allen and Seaman, 2007).

Abusive supervision. This research measured abusive supervision using a fifteen-item scale from Tepper (2000) on a 5-point Likert scale ranging from 5 (*He/she uses this behavior very often with me*) to 1 (*I cannot remember him/her ever using this behavior with me*). The sample item includes, "My supervisor blames me to save himself/herself embarrassment." The Cronbach's alpha for this scale was 0.95.

Frequency of interaction. Kuenzi *et al.*'s (2019) three-item scale was adopted to assess the frequency of interaction between employees and their supervisors. The sample item includes, "I frequently interact with my supervisor." The participants responded on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The Cronbach's alpha for this scale was 0.90.

Peer ostracism. This research measured peer ostracism by the 10-item scale developed by Ferris *et al.* (2008). The sample item includes, "Others at work shut you out of the conversation." The participants responded on a 7-point Likert scale ranging from 1 (*never*) to 7 (*always*). The Cronbach's alpha for this scale was 0.96.

Knowledge hiding. This research measured knowledge hiding using the 12-item scale adapted from Connelly *et al.* (2012). The sample item includes, "Said that I was not very knowledgeable about the topic." The participants responded on a 7-point Likert scale ranging from 1 (*not at all*) to 7 (*to a very great extent*). The Cronbach's alpha for this scale was 0.94.

Control variables. This research followed the previous studies and included variables that should be related to the key study variables (Černe *et al.*, 2014; Xu *et al.*, 2012). It includes employees' age, sex, education, tenure in the organization, and tenure with the supervisor.

Analytic plan

The author used SPSS 29 and AMOS 29 to analyze the collected data. First, the descriptive statistics and correlations among the variables were conducted using SPSS. The author performed item parceling using the single-factor method (SFA) to improve the reliability of factor solutions and reduce random error in the measurement model (Floyd and Widaman, 1995). Then, confirmatory factor analysis (CFA) was performed using AMOS to establish measurement models and assess key study variables' composite reliability, convergent validity, and discriminant validity (Hair *et al.*, 2017). Next, the author performed regression analysis using SPSS (Cohen *et al.*, 2003) and later used PROCESS macro with 5,000 bootstrapping samples to examine mediation (Preacher and Hayes, 2004) and moderated mediation effects (Preacher *et al.*, 2007).

Results

Descriptive statistics

Table 1 shows the means, standard deviations, and bivariate correlations among the variables. Abusive supervision is positively associated with peer ostracism ($r = 0.532, p < 0.1$) and knowledge hiding ($r = 0.453, p < 0.1$). Furthermore, peer ostracism is positively associated with knowledge hiding ($r = 0.579, p < 0.1$).

Confirmatory factor analysis

Before testing the hypotheses, the author performed a confirmatory factor analysis to test whether the key study variables fit the hypothesized model. The four-factor model showed a good fit to the data: $\chi^2 = 619.654, df = 177$, Tucker–Lewis index (TLI) = .960, comparative fit index (CFI) = .966, root-mean-square error of approximation (RMSEA) = .063, and standardized root mean squared residual (SRMR) = .036. CFI and TLI were higher than 0.90, and the RMSEA and SRMR values were below the .08 cut-off (Kline, 2023), indicating an acceptable fit.

The composite reliability (CR) and average variance extracted (AVE) were used to examine the convergent validity of the measurement model. The CR values ranged from 0.898 to 0.960, exhibiting satisfactory reliability (Bagozzi and Yi, 1988). Similarly, AVE estimates ranged from 0.695 to 0.826 (Bagozzi and Yi, 1988). Finally, the Fornell-Larcker criteria were used to examine the discriminant validity. Comparing the AVE of each construct with the squared variance that it shares with other constructs confirmed discriminant validity. As illustrated in Table 2, the matrix of the factors' correlations indicates that each construct meets the Fornell and Larcker (1981) threshold and is greater than the squared correlation coefficients between constructs, thereby achieving discriminant validity.

Hypotheses testing

Table 3 shows the hierarchical regression results. Hypothesis 1 predicted that abusive supervision should be positively associated with peer ostracism. Results showed supportive evidence that there was a positive direct relationship between abusive supervision and peer ostracism ($B = 0.688$, $SE = 0.044$, $p < 0.001$). The results also support Hypothesis 2, that there was a positive direct relationship between peer ostracism and knowledge hiding ($B = 0.528$, $SE = 0.031$, $p < 0.001$). Hypothesis 4 predicted the moderation of the frequency of interaction, which is also supported by the results that it moderates the positive relationship between abusive supervision and peer ostracism ($B = -0.182$, $SE = 0.046$, $p < 0.001$). The interaction pattern is shown in Figure 2.

A bootstrap estimation method with 5,000 resamples is adopted to examine the indirect effects. The results in Table 4 showed a significant indirect effect of abusive supervision on knowledge hiding through peer ostracism ($B = 0.296$, 95% CI [0.192, 0.415]), therefore supporting Hypothesis 3. Furthermore, Table 5 shows that the indirect relationship between abusive supervision and knowledge hiding through peer ostracism was significant when the frequency of interaction was high ($B = 0.219$, 95% CI [0.096, 0.365]) and low ($B = 0.368$, 95% CI [0.204, 0.518]). Thus, supporting Hypothesis 5.

Discussion

Previous studies have documented the adverse effects of abusive supervision on both the third-party employees' and victim employees' knowledge sharing (Lee *et al.* 2018). It is uncertain whether third-party employees act as accomplices for the abusive supervisor in order to harm the victim. To address this research gap, the present study examined how abusive supervision was related to the victim's knowledge-hiding behavior through third-party employees' mistreatment behaviors and when frequency of interaction moderated this relationship.

Theoretical Implications

The present study contributes to the literature on abusive supervision and knowledge hiding in four ways. The primary contribution is that this study examines the correlation between abusive supervision and the target employee's knowledge hiding from a third-party employee's perspective. Earlier studies regarding the correlation between abusive supervision and knowledge hiding focused on either the third-party employees (e.g., Hao *et al.*, 2022) or the victims (Pradhan *et al.*, 2020). There is a gap in the research regarding the impact of third-party employees who witness abusive supervision on the victim's tendency to engage in knowledge-hiding behavior. The present study aims to fill this gap by integrating the mistreatment of third-party employees into the existing literature that demonstrates a positive association between abusive supervision and victim employees' knowledge-hiding behavior.

The research findings indicate that the vicious behavior of third-party employees, such as ostracism, serves as a channel connecting abusive supervision to employees' knowledge hiding. Investigating these possible channels contributes to understanding the negative aspects of leadership and how this negativity affects the work atmosphere among employees.

Second, this study advances the research on third-party employees by using the social learning mechanism (Bandura and Walters, 1977) to explain their workplace abusive behaviors. Limited research utilizing social learning theory has indicated that abusive supervision is transmitted through organizational levels. This leads employees to perceive their supervisors as role models from whom they learn and subsequently mistreat their peers (Liu *et al.*, 2012; Tu *et al.*, 2018). However, it is essential to highlight that co-workers lacking positional authority cannot misuse their supervisory power over the target as supervisors can. Instead, according to the research findings, third-party employees' social learning from abusive supervisors may lead to peer ostracism. In this regard, this research shows that social learning theory significantly contributes to the body of literature on abusive supervision and peer mistreatment.

Third, this study examines the influence of peer ostracism on employees' knowledge-hiding behavior. Several studies have found that, compared to harassment from peers, ostracism is more strongly related to adverse outcomes, including health problems, lower affective commitment and job satisfaction, higher psychological withdrawal, and a tendency to quit (Ferris *et al.*, 2017). Therefore, researchers have called for studies to distinguish workplace ostracism from other mistreatment behaviors (Balliet and Ferris, 2013). This research addresses this call. Similar to O'Reilly *et al.*'s (2015) study, which claimed that ostracism has a much stronger effect on employees' work-related attitudes, this study also found that ostracism significantly impacted employees' knowledge hiding. One possible explanation for this may relate to the underlying psychological mechanisms of ostracism (Ferris *et al.*, 2017). Ostracism creates a context of social isolation in such a way that peers subtly deplete the victim's sense of belonging (Ferris *et al.*, 2017). It is agreeable that a sense of belonging is critical for one's psychological health (Rubin *et al.*, 2019), negatively affecting attitudinal outcomes such as a tendency to quit, job satisfaction, or psychological withdrawal. However, this research speculates that the need to belong may be less crucial for knowledge hiding. This is because individuals are obliged to fulfill their job requirements (e.g., sharing work knowledge) even though they do not feel that they belong to the group. Thus, ostracism may be less directly harmful in affecting behavioral outcomes. Hence, in the context of abusive supervision, peer ostracism doesn't have a worse impact on knowledge hiding. This study contributes to the debates regarding a distinct form of workplace mistreatment.

Lastly, regarding the moderating effect, this research indicated that the frequency of interaction has a detrimental impact on the positive relationship between abusive supervision and the victim's knowledge hiding through peer ostracism. Abusive supervision's accentuated positive effect on peer ostracism varies based on the frequency of interaction. Therefore, it is likely that third-party workers who frequently interact with supervisors may be sensitive to detecting subtle or imperceptible social signals. As a result, the moderating effect of the frequency of interaction between abusive supervision and ostracism is significant. A high frequency of interaction with third-party employees reduces their tendency to exclude victims, thus amplifying the connection between abusive supervision and peer ostracism. Therefore, the findings indicate that investigating the frequency of interaction as a moderator may provide valuable insights into studying abusive supervision processes.

Practical Implications

This study offers some recommendations for practitioners. Knowledge sharing is crucial in a competitive business environment (Devi, 2024), so it is essential to thoroughly understand the factors that may drive employees to hide knowledge, particularly negative ones. This research reveals an intermediary pathway through which third-party employees mitigate the association between abusive supervision and knowledge hiding. The author finds that abusive supervision not only increases employees' tendency to hide knowledge but also serves as a behavioral model for third-party employees. Therefore, supervisors need to be mindful of their leadership style, as setting a negative example can contribute to creating a vicious team. It is advisable to consider implementing stringent policies against abusive supervision in an organization (Sutton, 2007). This involves monitoring supervisors to ensure they exhibit appropriate management styles towards employees and providing leadership training to enhance their approach to leading others.

Second, the findings validate that being ostracized by peers significantly and detrimentally influences the victim's propensity to hide knowledge. Organizations must foster an environment of fairness and honesty to encourage employees not to participate in knowledge hiding. Organizations are encouraged to establish and implement rigorous regulations against abusive workplace behaviors and ostracism while employing soft management approaches. These may include arranging internal events to enhance interpersonal relationships among employees, offering conflict management training for them, or setting up a workspace where employees can seek advice on workplace conflicts. All these actions could potentially effectively disrupt the pattern of acquiring unethical behavior. In cases where employees have been mistreated by their supervisors and peers, the organization could provide psychological support through counseling services.

Third, this research reveals that if a high frequency of interaction exists among the supervisors and peers, this accentuates the negative impact of peer ostracism on the victim. Thus, when ostracism incidents are reported, organizations may need to pay extra attention, encourage open communication, and motivate employees not to hide knowledge because they may strongly react negatively to it.

Limitations and future recommendations

Despite several theoretical and practical implications, the current study has some limitations. The author collected the data using temporal separation; however, it was collected from the same source (i.e., employees), which could be a potential limitation of this research. However, the results of Harman's single-factor test indicated that common method variance was not substantial, posing a very minimal threat to the validity of the findings. Future research may collect data on independent and dependent variables from different sources (i.e., employees and their supervisors) to reduce CMV further. Furthermore, social desirability bias could be an issue of concern because employees might under-report their knowledge-hiding behavior. Instead of asking employees to rate their knowledge-hiding behavior, an alternative assessment method could be to ask their supervisors.

Another limitation is that the participants in the current study were recruited only from an online source in the USA. Hence, this could limit the generalizability of the findings to the entire working population in other regions. Future researchers should collect data from different countries to make the results more representative because organizational culture

differs for various countries. In addition, this study only focused on the influence of abusive leadership on knowledge hiding. There are many other possible types of leadership styles, such as responsible leadership (Siegel, 2014), authoritative leadership (Mohammad Mosadegh Rad and Hossein Yarmohammadian, 2006), servant leadership (Sendjaya *et al.*, 2008), authentic leadership (Avolio and Gardner, 2005), and charismatic leadership (Shamir and Howell, 1999) that could influence employees' knowledge hiding behavior. Nevertheless, researchers should not only examine the influence of leadership styles on knowledge hiding as many other potential theories or models can be applied to understand knowledge hiding, such as the dark-triad personality model, the deterrence theory, the theory of interpersonal behavior, and the theory of planned behavior.

References

- Aguinis, H., Hill, N. S. and Bailey, J. R. (2021), "Best Practices in Data Collection and Preparation: Recommendations for Reviewers, Editors, and Authors", *Organizational Research Methods*, Vol. 24 No. 4, pp. 678-693.
- Allen, I. E. and Seaman, C. A. (2007), "Likert scales and data analyses", *Quality Progress*, Vol. 40 No. 7, pp. 64-65.
- Avolio, B. J. and Gardner, W. L. (2005), "Authentic leadership development: Getting to the root of positive forms of leadership", *The Leadership Quarterly*, Vol. 16 No. 3, pp. 315-338.
- Babalola, M. T., Garcia, P. R. J. M., Ren, S., Ogunfowora, B. and Gok, K. (2022), "Stronger together: Understanding when and why group ethical voice inhibits group abusive supervision", *Journal of Organizational Behavior*, Vol. 43 No. 3, pp. 386-409.
- Bagozzi, R. P. and Yi, Y. (1988), "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16 No. 1, pp. 74-94.
- Bai, Y., Lin, L. and Liu, J. T. (2019), "Leveraging the employee voice: a multi-level social learning perspective of ethical leadership", *The International Journal of Human Resource Management*, Vol. 30 No. 12, pp. 1869-1901.
- Balliet, D. and Ferris, D. L. (2013), "Ostracism and prosocial behavior: A social dilemma perspective", *Organizational Behavior and Human Decision Processes*, Vol. 120 No. 2, pp. 298-308.
- Bandura, A. and Walters, R. H. (1977), *Social Learning Theory*, Prentice Hall, Englewood Cliffs, New Jersey.
- Bateman, T. S. and Crant, J. M. (1993), "The proactive component of organizational behavior: A measure and correlates", *Journal of Organizational Behavior*, Vol. 14 No. 2, pp. 103-118.
- Černe, M., Nerstad, C. G. L., Dysvik, A. and Škerlavaj, M. (2014), "What goes around comes around: Knowledge hiding, perceived motivational climate, and creativity", *Academy of Management Journal*, Vol. 57 No. 1, pp. 172-192.
- Christensen-Salem, A., Walumbwa, F. O., Babalola, M. T., Guo, L. and Misati, E. (2021), "A multilevel analysis of the relationship between ethical leadership and ostracism: The roles of relational climate, employee mindfulness, and work unit structure", *Journal of Business Ethics*, Vol. 171 No., pp. 619-638.
- Chung, Y. W. and Yang, J. Y. (2017), "The mediating effects of organization-based self-esteem for the relationship between workplace ostracism and workplace behaviors", *Baltic Journal of Management*, Vol. 12 No. 2, pp. 255-270.
- Cohen, J., Cohen, P., West, S. G. and Aiken, L. S. (2003), *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, Lawrence Erlbaum Associates, Inc, Oxford.
- Connelly, C. E., Zweig, D., Webster, J. and Trougakos, J. P. (2012), "Knowledge hiding in organizations", *Journal of Organizational Behavior*, Vol. 33 No. 1, pp. 64-88.
- Creasy, T. and Carnes, A. (2017), "The effects of workplace bullying on team learning, innovation and project success as mediated through virtual and traditional team dynamics", *International Journal of Project Management*, Vol. 35 No. 6, pp. 964-977.
- Das, A. K., Yi, L. and Uddin, M. A. (2018), "Knowledge withholding in sharing knowledge within an organisation: The shadowy impediment in spreading innovation", *International Journal of Knowledge Management Studies*, Vol. 9 No. 4, pp. 381-402.
- Devi, N. C. (2024), "Paradoxical leadership and employee creativity: knowledge sharing and hiding as mediators", *Journal of Knowledge Management*, Vol. 28 No. 2, pp. 312-340.

- Fatima, T., Bilal, A. R., Imran, M. K., Ayub, A. and Arshad, H. (2024), "Who is likely to hide knowledge after peer ostracism? An exchange-based perspective of contact quality and need to belong", *VINE Journal of Information and Knowledge Management Systems*, Vol. 54 No. 1, pp. 108-128.
- Fay, D., Borrill, C., Amir, Z., Haward, R. and West, M. A. (2006), "Getting the most out of multidisciplinary teams: A multi-sample study of team innovation in health care", *Journal of Occupational and Organizational Psychology*, Vol. 79 No. 4, pp. 553-567.
- Ferris, D. L., Brown, D. J., Berry, J. W. and Lian, H. (2008), "The Development and Validation of the Workplace Ostracism Scale", *Journal of Applied Psychology*, Vol. 93 No. 6, pp. 1348-1366.
- Ferris, D. L., Chen, M. and Lim, S. (2017), "Comparing and contrasting workplace ostracism and incivility", *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 4 No. 1, pp. 315-338.
- Fonner, K. L. and Roloff, M. E. (2010), "Why teleworkers are more satisfied with their jobs than are office-based workers: When less contact is beneficial", *Journal of Applied Communication Research*, Vol. 38 No. 4, pp. 336-361.
- Fornell, C. and Larcker, D. F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.
- Frank, J. F. and Keith, F. W. (1995), "Factor analysis in the development and refinement of clinical assessment instruments", *Psychological Assessment*, Vol. 7 No. 3, pp. 286-299.
- Goldstein, J. (1975), *Aggression and crimes of violence*, Oxford University Press, New York, NY.
- Greenberg, J. & Cropanzano, R. (2001) *Advances in organizational justice*, Stanford University Press, Stanford, California.
- Hair, J. F., Jr., Celsi, M., Ortinau, D. J. and Bush, R. P. (2017), *Essentials of marketing research*, McGraw-Hill Education, New York, NY.
- Hao, Q., Wei, K. and Zhang, B. (2022), "How to attenuate the effects of abusive supervision on knowledge hiding: the neutralizing roles of coworker support and individual characteristics", *Journal of Knowledge Management*, Vol. 26 No. 7, pp. 1807-1825.
- Hoel, H. and Cooper, C. L. (2000), *Destructive conflict and bullying at work*, Manchester School of Management, UMIST Manchester.
- Jahanzeb, S. and Fatima, T. (2018), "How workplace ostracism influences interpersonal deviance: The mediating role of defensive silence and emotional exhaustion", *Journal of Business and Psychology*, Vol. 33 No. 6, pp. 779-791.
- Jetten, J., Branscombe, N. R., Schmitt, M. T. and Spears, R. (2001), "Rebels with a Cause: Group Identification as a Response to Perceived Discrimination from the Mainstream", *Personality & Social Psychology Bulletin*, Vol. 27 No. 9, pp. 1204-1213.
- Kim, S. L., Lee, S. and Yun, S. (2016), "Abusive supervision, knowledge sharing, and individual factors: A conservation-of-resources perspective", *Journal of Managerial Psychology*, Vol. 31 No. 6, pp. 1106-1120.
- Kim, T.-Y., Cable, D. M. and Kim, S.-P. (2005), "Socialization tactics, employee proactivity, and person-organization fit", *Journal of Applied Psychology*, Vol. 90 No. 2, pp. 232-241.
- Kipkosgei, F., Son, S. Y. and Kang, S.-W. (2020), "Coworker trust and knowledge sharing among public sector employees in Kenya", *International Journal of Environmental Research and Public Health*, Vol. 17 No. 6, pp. 2009.

- Kline, R. B. (2023), *Principles and Practice of Structural Equation Modeling*, Guilford, New York, NY.
- Kristopher, J. P., Derek, D. R. and Andrew, F. H. (2007), "Addressing Moderated Mediation Hypotheses: Theory, Methods, and Prescriptions", *Multivariate Behavioral Research*, Vol. 42 No. 1, pp. 185-227.
- Kuenzi, M., Brown, M. E., Mayer, D. M. and Priesemuth, M. (2019), "Supervisor-Subordinate (Dis)agreement on Ethical Leadership: An Investigation of its Antecedents and Relationship to Organizational Deviance", *Business Ethics Quarterly*, Vol. 29 No. 1, pp. 25-53.
- Landers, R. N. and Behrend, T. S. (2015), "An Inconvenient Truth: Arbitrary Distinctions Between Organizational, Mechanical Turk, and Other Convenience Samples", *Industrial and Organizational Psychology*, Vol. 8 No. 2, pp. 142-164.
- Lee, S., Kim, S. L. and Yun, S. (2018), "A moderated mediation model of the relationship between abusive supervision and knowledge sharing", *The Leadership Quarterly*, Vol. 29 No. 3, pp. 403-413.
- Lian, H., Ferris, D. L. and Brown, D. J. (2012), "Does power distance exacerbate or mitigate the effects of abusive supervision? It depends on the outcome", *Journal of Applied Psychology*, Vol. 97 No. 1, pp. 107.
- Liu, D., Liao, H. and Loi, R. (2012), "The dark side of leadership: A three-level investigation of the cascading effect of abusive supervision on employee creativity", *Academy of Management Journal*, Vol. 55 No. 5, pp. 1187-1212.
- Liu, W., Zhang, P., Liao, J., Hao, P. and Mao, J. (2016), "Abusive supervision and employee creativity", *Management Decision*, Vol. 54 No. 1, pp. 130-147.
- Mawritz, M. B., Mayer, D. M., Hoobler, J. M., Wayne, S. J. and Marinova, S. V. (2012), "A trickle-down model of abusive supervision", *Personnel Psychology*, Vol. 65 No. 2, pp. 325-357.
- Mitchell, M., Vogel, R. and Folger, R. (2012), "Beyond the consequences to the victim: The impact of abusive supervision on third-party observers", *Handbook of Unethical Work Behavior: Implications for Well-being*, Vol. No., pp. 21-43.
- Mitchell, M. S., Vogel, R. M. and Folger, R. (2015), "Third parties' reactions to the abusive supervision of coworkers", *Journal of Applied Psychology*, Vol. 100 No. 4, pp. 1040-1055.
- Mohammad Mosadegh Rad, A. and Hossein Yarmohammadian, M. (2006), "A study of relationship between managers' leadership style and employees' job satisfaction", *International Journal of Health Care Quality Assurance Incorporating Leadership in Health Services*, Vol. 19 No. 2, pp. 11-28.
- Monteiro, L. F., Arvidsson, N. and Birkinshaw, J. (2008), "Knowledge Flows Within Multinational Corporations: Explaining Subsidiary Isolation and Its Performance Implications", *Organization Science*, Vol. 19 No. 1, pp. 90-107.
- O'reilly, J., Robinson, S. L., Berdahl, J. L. and Banki, S. (2015), "Is Negative Attention Better Than No Attention? The Comparative Effects of Ostracism and Harassment at Work", *Organization Science*, Vol. 26 No. 3, pp. 774-793.
- Ogunfowora, B., Weinhardt, J. M. and Hwang, C. C. (2021), "Abusive supervision differentiation and employee outcomes: The roles of envy, resentment, and insecure group attachment", *Journal of Management*, Vol. 47 No. 3, pp. 623-653.
- Peng, A. C. and Zeng, W. E. I. (2017), "Workplace ostracism and deviant and helping behaviors: The moderating role of 360 degree feedback", *Journal of Organizational Behavior*, Vol. 38 No. 6, pp. 833-855.
- Podsakoff, P. M., Mackenzie, S. B., Lee, J.-Y. and Podsakoff, N. P. (2003), "Common Method Biases in Behavioral Research: A Critical Review of the Literature and

- Recommended Remedies”, *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.
- Pradhan, S., Srivastava, A. and Mishra, D. K. (2020), “Abusive supervision and knowledge hiding: the mediating role of psychological contract violation and supervisor directed aggression”, *Journal of Knowledge Management*, Vol. 24 No. 2, pp. 216-234.
- Preacher, K. J. and Hayes, A. F. (2004), “SPSS and SAS procedures for estimating indirect effects in simple mediation models”, *Behavior Research Methods, Instruments, & Computers*, Vol. 36 No. 4, pp. 717-731.
- Priesemuth, M. (2013), “Stand up and speak up: Employees’ prosocial reactions to observed abusive supervision”, *Business & Society*, Vol. 52 No. 4, pp. 649-665.
- Priesemuth, M., Schminke, M., Ambrose, M. L. and Folger, R. (2014), “Abusive supervision climate: A multiple-mediation model of its impact on group outcomes”, *Academy of Management Journal*, Vol. 57 No. 5, pp. 1513-1534.
- Qiao, Y., Zhang, Z. and Jia, M. (2021), “Their pain, our pleasure: How and when peer abusive supervision leads to third parties’ schadenfreude and work engagement”, *Journal of Business Ethics*, Vol. 169 No., pp. 695-711.
- Rahman, M. M. (2024), “The interplay of abusive supervision and coworker incivility on the turnover intention of frontliners: a mediation effect of work stress”, *Asia-Pacific Journal of Business Administration*, Vol. 16 No. 4, pp. 876-897.
- Richard, O. C., Boncoeur, O. D., Chen, H. and Ford, D. L. (2020), “Supervisor abuse effects on subordinate turnover intentions and subsequent interpersonal aggression: The role of power-distance orientation and perceived human resource support climate”, *Journal of Business Ethics*, Vol. 164 No., pp. 549-563.
- Rubin, M., Paolini, S., Subašić, E. and Giacomini, A. (2019), “A confirmatory study of the relations between workplace sexism, sense of belonging, mental health, and job satisfaction among women in male-dominated industries”, *Journal of Applied Social Psychology*, Vol. 49 No. 5, pp. 267-282.
- Sendjaya, S., Sarros, J. C. and Santora, J. C. (2008), “Defining and Measuring Servant Leadership Behaviour in Organizations”, *Journal of Management Studies*, Vol. 45 No. 2, pp. 402-424.
- Shamir, B. and Howell, J. M. (1999), “Organizational and contextual influences on the emergence and effectiveness of charismatic leadership”, *The Leadership Quarterly*, Vol. 10 No. 2, pp. 257-283.
- Siegel, D. S. (2014), “Responsible leadership”, *Academy of Management Perspectives*, Vol. 28 No. 3, pp. 221-223.
- Singh, R., Deonarine, V., Balwant, P. and Ramdeo, S. (2024), “The relationship between abusive supervision and job satisfaction and turnover intentions: the moderating role of employee depression”, *Evidence-based HRM: a Global Forum for Empirical Scholarship*, Vol. 12 No. 4, pp. 1020-1039.
- Sutton, R. I. (2007), *The no asshole rule: building a civilized workplace and surviving one that isn't*, Business Plus, Boston.
- Takhsha, M., Barahimi, N., Adelpnah, A. and Salehzadeh, R. (2020), “The effect of workplace ostracism on knowledge sharing: the mediating role of organization-based self-esteem and organizational silence”, *Journal of Workplace Learning*, Vol. 32 No. 6, pp. 417-435.
- Tepper, B. J. (2000), “Consequences of abusive supervision”, *Academy of Management Journal*, Vol. 43 No. 2, pp. 178-190.
- Tepper, B. J., Simon, L. and Park, H. M. (2017), “Abusive supervision”, *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 4 No. 1, pp. 123-152.

- Thomas, A. and Gupta, V. (2022), "Tacit knowledge in organizations: bibliometrics and a framework-based systematic review of antecedents, outcomes, theories, methods and future directions", *Journal of Knowledge Management*, Vol. 26 No. 4, pp. 1014-1041.
- Treviño, L. K., Hartman, L. P. and Brown, M. (2000), "Moral person and moral manager: How executives develop a reputation for ethical leadership", *California Management Review*, Vol. 42 No. 4, pp. 128-142.
- Tu, M.-H., Bono, J. E., Shum, C., Lamontagne, L. and Chen, G. (2018), "Breaking the Cycle: The Effects of Role Model Performance and Ideal Leadership Self-Concepts on Abusive Supervision Spillover", *Journal of Applied Psychology*, Vol. 103 No. 7, pp. 689-702.
- Tucker, S., Turner, N., Barling, J. and Mcevoy, M. (2010), "Transformational leadership and childrens' aggression in team settings: A short-term longitudinal study", *The Leadership Quarterly*, Vol. 21 No. 3, pp. 389-399.
- Walasek, L., Matthews, W. J. and Rakow, T. (2015), "The need to belong and the value of belongings: Does ostracism change the subjective value of personal possessions?", *Journal of Behavioral and Experimental Economics*, Vol. 58 No., pp. 195-204.
- White, R. W. (1959), "Motivation reconsidered: the concept of competence", *Psychological Review*, Vol. 66 No. 5, pp. 297.
- Williams, K. D. (2007), "Ostracism: The kiss of social death", *Social and Personality Psychology Compass*, Vol. 1 No. 1, pp. 236-247.
- Wu, W.-L. and Lee, Y.-C. (2016), "Do employees share knowledge when encountering abusive supervision?", *Journal of Managerial Psychology*, Vol. 31 No. 1, pp. 154-168.
- Xu, E., Huang, X., Lam, C. K. and Miao, Q. (2012), "Abusive supervision and work behaviors: The mediating role of LMX", *Journal of Organizational Behavior*, Vol. 33 No. 4, pp. 531-543.
- Zhang, Y. and Liao, Z. (2015), "Consequences of abusive supervision: A meta-analytic review", *Asia Pacific Journal of Management*, Vol. 32 No., pp. 959-987.
- Zoghbi-Manrique-De-Lara, P. and Suárez-Acosta, M. A. (2014), "Employees' reactions to peers' unfair treatment by supervisors: The role of ethical leadership", *Journal of Business Ethics*, Vol. 122 No., pp. 537-549.

ABUSIVE SUPERVISION AND KNOWLEDGE HIDING

Table 1

Descriptive statistics and bivariate correlations

	1	2	3	4	5	6	7	8	9
1. Age	---								
2. Sex	-0.021	---							
3. Education	0.040	0.031	---						
4. Tenure in organization	0.493**	0.084*	-0.006	---					
5. Tenure with supervisor	0.344**	0.029	-0.024	0.651**	---				
6. Abusive supervision	-0.068	0.083*	-0.006	-0.015	0.016	---			
7. Frequency of interaction	-0.051	-0.023	-0.055	0.026	0.117**	-0.035	---		
8. Peer ostracism	-0.119	0.094*	0.060	-0.106	-0.080	0.532**	-0.062	---	
9. Knowledge hiding	-0.148	0.190**	0.053	-0.064	-0.047	0.453**	-0.021	0.579**	---
<i>Mean</i>	40.370	0.614	3.631	3.543	2.865	1.333	3.720	1.367	1.423
<i>SD</i>	11.529	0.487	1.312	1.243	1.217	0.592	0.950	0.778	0.738

Note(s): $n = 635$. * $p < 0.05$, ** $p < 0.01$ (two-tailed).

Source(s): Author's work

Table 2

Composite reliability, AVE, and discriminant validity of the constructs

	CR	AVE	AS	FI	PO	KH
AS	0.952	0.739	0.860			
FI	0.898	0.745	-0.022	0.863		
PO	0.960	0.826	0.563	-0.056	0.909	
KH	0.931	0.695	0.499	-0.002	0.586	0.834

Note(s): $n = 635$.

CR = composite reliability; AVE = average variance extract; AS = abusive supervision; FI = frequency of interaction; PO = peer ostracism; KH = knowledge hiding.

Source(s): Author's work

Table 3
Hierarchical regression results

Variables	Peer Ostracism			Knowledge Hiding	
	Model 1	Model 2	Model 3	Model 1	Model 2
1. <i>Intercept</i>	1.536*** (0.149)	0.693*** (0.179)	0.697*** (0.177)	1.527*** (0.139)	0.716*** (0.124)
2. <i>Control variables</i>					
Age	-0.006 (0.003)	-0.003 (0.003)	-0.003 (0.003)	-0.009** (0.003)	-0.006* (0.002)
Sex	0.154* (0.063)	0.084 (0.054)	0.083 (0.053)	0.282*** (0.059)	0.201*** (0.049)
Education	0.035 (0.023)	0.036 (0.020)	0.033 (0.020)	0.030 (0.022)	0.011 (0.018)
Tenure in organization	-0.041 (0.035)	-0.036 (0.030)	-0.032 (0.030)	-0.008 (0.033)	0.013 (0.027)
Tenure with supervisor	-0.007 (0.033)	-0.020 (0.028)	-0.024 (0.028)	0.004 (0.031)	0.008 (0.026)
3. <i>Independent variables</i>					
Abusive supervision (A)		0.688*** (0.044)	0.685*** (0.044)		
Peer ostracism					0.528*** (0.031)
4. <i>Moderator variable</i>					
Frequency of interaction (B)		-0.030 (0.028)	-0.034 (0.027)		
5. <i>Interaction variable</i>					
A x B			-0.182*** (0.046)		
<i>F</i>	3.944	38.964	36.803	7.994	59.053
<i>R</i> ²	0.03	0.303	0.32	0.06	0.361
Δ <i>R</i> ²		0.273	0.017		0.301
Note(s): <i>n</i> = 635; * <i>p</i> < 0.05, ** <i>p</i> < 0.01, *** <i>p</i> < 0.001 (two-tailed).					
Source(s): Author's work					

Table 4

Unstandardized results for indirect effects calculated based on 5,000 bootstrap resamples

Relationship	Direct Effect	Indirect Effect	95% CI	
			Low	High
AS → PO → KH	0.245 (5.306)	0.296	0.192	0.415

Note(s): $n = 635$; AS = abusive supervision; PO = peer ostracism; KH = knowledge hiding.; CI = confidence interval; Unstandardized co-efficient reported. The value in parentheses is the t -value.

Source(s): Author's work

Table 5

Moderated mediation effect on knowledge hiding

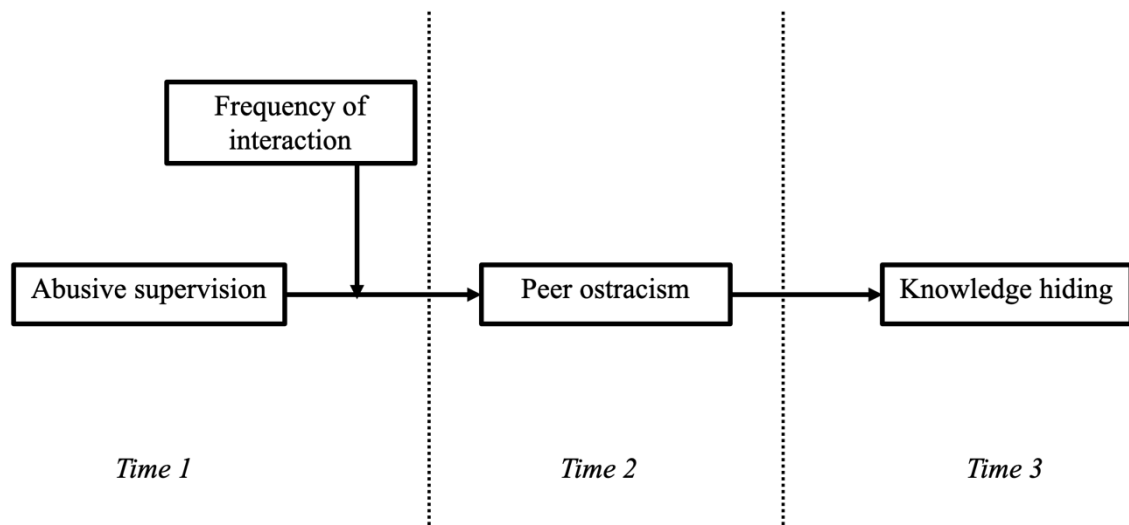
Levels of FI	Mediator	Indirect effect	Boot SE	95% bias-corrected CI
High	PO	0.219	0.068	[0.096, 0.365]
Medium		0.293	0.055	[0.190, 0.408]
Low		0.368	0.079	[0.204, 0.518]

Note(s): $n = 635$; FI = frequency of interaction; PO = peer ostracism; CI = confidence interval; coefficients in bold denote significant mediation.

Source(s): Author's work

Figure 1

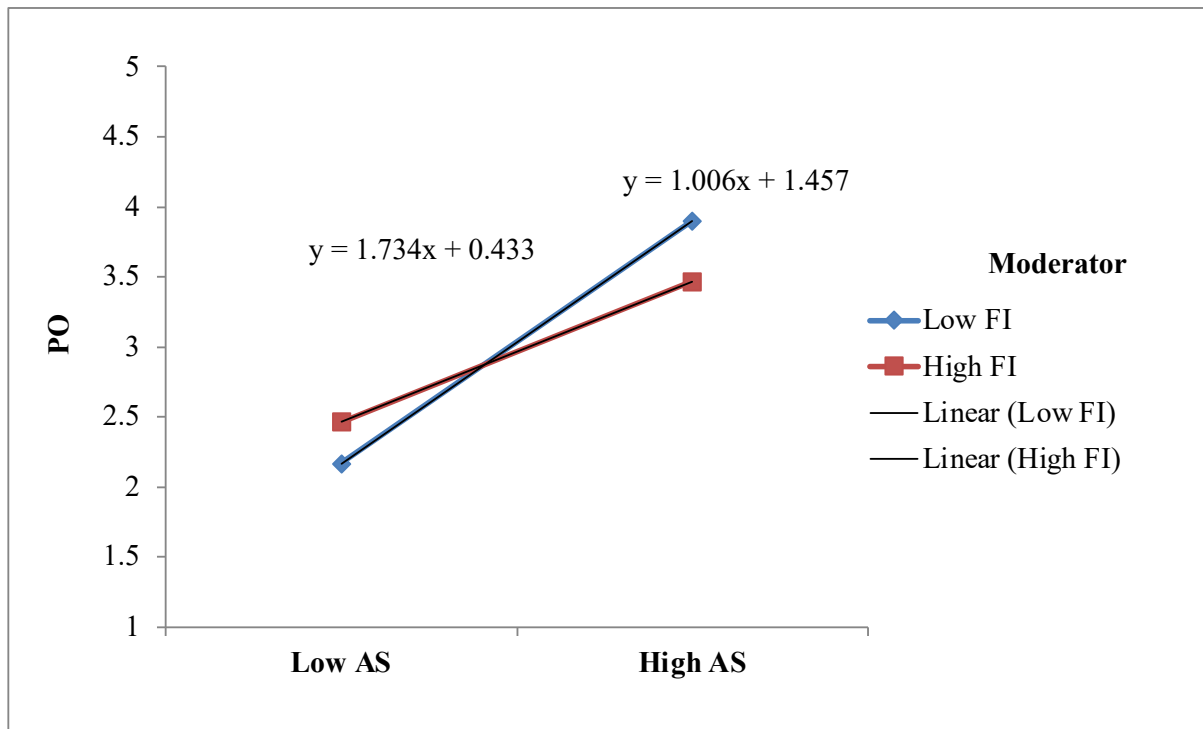
Schematic representation of the conceptual model



Source(s): Author's work

Figure 2

The two-way interaction of abusive supervision and frequency of interaction on peer ostracism



Note(s): AS = abusive supervision; FI = frequency of interaction; PO = peer ostracism

Source(s): Author's work