Evaluation of Nurses’ Job Engagement as an Outcome of Experienced Compassion in the Workplace, Using the Lens of Affective Event Theory

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Abstract
This study examined an integrated model encompassing supervisor undermining, experienced compassion, state optimism, regulatory emotional self-efficacy, and job engagement using the affective event theory. We tested the propensity toward supervisor undermining as an environmental factor to trigger a compassionate response in the workplace, viewing the resulting effects of compassion as a form of job engagement. We also examined the mediating role of state optimism in the relationship between experienced compassion and job engagement, and the moderating role of regulatory emotional self-efficacy between experienced compassion and state optimism. We collected data in four-time lags from 406 nurses in public sector hospitals in Pakistan. The findings indicate that supervisor undermining triggers compassionate responses in the workplace. Furthermore, the results show that experienced compassion in the workplace increases job engagement, which is mediated through state optimism. Regulatory emotional self-efficacy moderated the relationship between experienced compassion and state optimism. Implications and future directions are highlighted.

Keywords
experienced compassion, job engagement, regulatory emotional self-efficacy, state optimism, supervisor undermining

“Supervisor undermining” refers to a “supervisor’s behavior intended to hinder the subordinate’s ability to maintain positive interpersonal relationships, achieve work-related success, and maintain favorable reputation” (Duffy et al., 2002, p. 332). A study on the US workforce concerning the prevalence of workplace aggression found that about 13% of the workforce experience nonphysical hostility from their supervisors (Schat et al., 2006). Such behavior may cause depression, stress, a lower level of trust in the supervisor, decreased job involvement, and poor performance—ultimately translating into losses of billions of dollars for the organizations (Eissa et al., 2017; Greenbaum & Mawritz, 2015).

Researchers have demonstrated that victims of supervisor undermining engage in negative workplace attitudes and behaviors (Eissa et al., 2017; Fatima et al., 2020; Frazier & Bowler, 2015; Greenbaum & Mawritz, 2015; Ng & Yim, 2015), but they may not engage in retaliatory and counterproductive behaviors consistently. Instead, under certain situations, they may engage in positive work attitudes and behaviors (Miner et al., 2012). Unfortunately, relatively little research attention has been devoted to studying how the adverse effects of supervisor undermining can be mitigated in the workplace (Ng & Yim, 2015). Furthermore, the role of compassion to trigger positive work attitudes in the victims of supervisor undermining, the underlying mediating mechanisms through which this may occur, and the critical moderators that can arrest or bolster this relationship, are rarely investigated. To address these significant gaps in the existing literature, we examined the role of experienced compassion in the workplace in mitigating the adverse effects of supervisor undermining and increase the state optimism and job engagement of the victims of undermining.

We invoked affective event theory (AET; Weiss & Cropanzano, 1996) as a theoretical lens for our integrated model. AET stresses the role of different events in the workplace as proximal causes of employees’ reactions. The thesis of AET is that employees react emotionally to the various occurrences in the workplace, and their emotional reactions affect their job satisfaction and performance. Environmental factors and workplace events in the form of daily hassles and uplifts trigger various positive or negative emotions in employees, which in turn affect their attitudes and behaviors. The theory further highlights the importance of personal disposition in strengthening or weakening emotional reactions to workplace events. Hence, using this theory’s lens, we tested whether nurses’ undermining by supervisors (head
nurses) triggers compassion in the workplace toward them by their colleagues, a reaction termed “experienced compassion.” This is likely to happen, as compassion is considered a specific form of responsiveness to the suffering and pain of others (Dutton et al., 2014; Lilius et al., 2008). In addition, using the lens of AET, experienced compassion as a workplace event is expected to trigger state optimism in nurses who are victims of supervisor undermining. This is likely because state optimism is predicted by situational and contextual factors (Kluemper et al., 2009; Ragsdale & Beehr, 2016). We argue that the state optimism of nurses will translate into higher levels of job engagement. Kluemper et al. (2009) posited that the state optimism of individuals helps reduce their emotional exhaustion and withdrawal, as they become more positive a consequence of their job-related efforts (Millstein et al., 2019; Urrúa et al., 2017). In summation, state optimism’s cognitive, affective, and motivational properties tend to increase nurses’ job engagement (Ragsdale & Beehr, 2016). Job engagement among nurses is critical for the effective functioning of healthcare institutions (Park & Lee, 2018). It is essential as hospitals strive to increase the job engagement of their nursing staff because it is linked with innovation and other desired positive outcomes (Sheehan et al., 2019; Zhong et al., 2016).

Finally, we theorize that the relationship between experienced compassion and state optimism will be stronger for nurses with a higher level of regulatory emotional self-efficacy (RESE). RESE refers to an individual’s self-efficacy beliefs in managing negative emotions and expressing positive emotions (Caprara et al., 2008). Nurses with a higher level of RESE will manage their negative emotions and express positive emotions, such as state optimism, when they experience a positive event such as compassion in the workplace. To find evidence, we tested an integrated model through the lens of affective event theory (Weiss & Cropanzano, 1996). The research model is shown in Figure 1.

Our research context—public sector hospitals in Pakistan—is quite suitable for the study of supervisor undermining. Characterized as a high power distance culture, Pakistan is frequently represented as supporting high disparities in wealth and power (Hofstede, 2011). Due to high deference to authority in a culture like this, subordinates are expected to be more submissive to authority and thus less likely to report their supervisors’ undermining behaviors. Furthermore, a high rate of unemployment, coupled with fewer alternative job opportunities (Arain et al., 2020), make the nursing staff more vulnerable to supervisor undermining. Hence, our research extends to a new and relatively under-researched Pakistani cultural context (Aycan et al., 2000), enriching the existing literature with new insights regarding how the adverse effects of supervisor undermining can be mitigated in the workplace and the effects of compassion in the form of improved state optimism and job engagement.

Literature Review

Supervisor Undermining and Experienced Compassion

Compassion was initially defined as “the heart’s response to sorrow” (Kornfield, 1993). It is a multidimensional process encompassing three elements: noticing the suffering of another person; empathically feeling the pain of that person; and acting or behaving in a manner that may ease the suffering (Dutton et al., 2006). Specifically, compassion is expressed by being sympathetic to individuals who are depressed and experiencing difficulties. Employees demonstrate compassion in the workplace through communication and exhibiting appropriate behaviors (Roeser et al., 2018; Simpson et al., 2020). In addition, experienced compassion is found to be particularly noticeable and rewarding in workplaces where employees are engaged in caregiving jobs, such as nursing, where they regularly encounter emotionally exhausting situations such as supervisor undermining (Rhee et al., 2017; Straughair et al., 2019).

Experienced compassion in the workplace is still in its infancy as a topic of research (Eldor, 2018). Only recently researchers in organizational behavior and psychology have begun to study the antecedents and consequences of experienced compassion in the workplace (Chu, 2016; Eldor, 2018; Lilius et al., 2008; Roeser et al., 2018; Runyan et al., 2019).

Existing research on compassion has identified various factors that trigger compassionate responses in the workplace (Eldor, 2018; Kanov et al., 2004). Specifically, the organizational environments in which members regularly experience painful experiences are found to consistently evoke compassionate responses in the workplace (Eldor, 2018; Worline & Dutton, 2017). From this perspective, van der Cingel (2009) concluded that suffering is a trigger that ignites compassion. Hence, suffering occurs first, before compassion is received from the observers.

Similarly, AET also suggests that features of the work environment initiate affective workplace episodes or events. Hence, it is logical to infer that a hospital’s work environment, characterized by nurses being undermined by their supervisors may evoke workplace events in the form of compassion shown toward them by their colleagues. Accordingly, we propose that nurses who are victims of supervisor undermining may experience compassionate responses from their colleagues in the workplace. Accordingly, we hypothesize the following:

Hypothesis 1: Supervisor undermining is significantly and positively related to experienced compassion.

Experienced Compassion and State Optimism

Existing studies have found that when employees receive a compassionate response in the workplace, they produce a variety of positive emotions (Dutton & Ragins, 2007; Dutton et al., 2014; Lilius et al., 2008; Plante, 2020; Runyan et al., 2019; Subba & Rao, 2017). Furthermore, AET (Weiss &
Cropanzano, 1996) also proposes that affective workplace events trigger corresponding affective reactions in the targets, ultimately influencing their work attitudes and behaviors. This theory has been widely tested in different laboratory and field studies, and the findings remain consistent (Hu et al., 2017; Lam & Chen, 2012; Lewis et al., 2017).

Positive organizational behavior researchers (e.g., Luthans, 2002a, 2002b; Luthans & Youssef, 2007; Nelson & Cooper, 2007) have suggested studying the positive states of employees concerning work outcomes. They posit that these states are measurable, changeable, and may have important implications for managers and administrators. This recent stream of research calls attention to a rarely explored area in the existing literature on optimism, that is, examining the effects of optimism as a flexible, adaptable construct (i.e., state optimism) on work-related attitudes and behavioral outcomes (Kluemper et al., 2009; Millstein et al., 2019; Urzúa et al., 2017). Since state optimism is predicted by situational and contextual factors (Kluemper et al., 2009), we argue that experienced compassion in the workplace will trigger state optimism in nurses. In Pakistani hospitals, compassion from nurses’ colleagues may be in the form of gestures of emotional support, sympathy, kindness, and offering work-related help. These gestures of compassion from colleagues may trigger positive affective states, such as state optimism, in nurses who are the victims of supervisor undermining. In support of this argument (Miller, 2007) maintained that experienced compassion in the workplace increases feelings of connectedness among employees, which helps produce various positive affective states. Considering the above discussion and following the leads of AET, it is expected that experienced compassion in the workplace will cultivate state optimism in nurses who are the victims of supervisor undermining. Consequently, we hypothesize the following:

**Hypothesis 2:** Experienced compassion in the workplace is significantly and positively related to state optimism among nurses.

**State Optimism and Job Engagement**

The attachment of a person’s “self” to “role” has been examined from various perspectives by researchers since 1990. However, researchers are divided on the issues of definition and measurement of engagement. From this perspective, a recent study showed that personal engagement, work engagement, and job engagement differ significantly from each other (Gupta & Shukla, 2018). Personal engagement is defined as the “harnessing of organization members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances” (Kahn, 1990, p. 694). Job engagement is defined as a person’s enthusiasm and involvement in their job (Roberts & Davenport, 2002). Employees who are engaged in their jobs tend to perform their jobs better. Such employees personally identify with the job and are motivated by the work itself. They tend to work hard, show high productivity compared to others, and produce results for their organizations.

Organizations are striving to increase job engagement in their employees because it is linked with innovation, increased productivity, and other desired positive outcomes (Gupta et al., 2016; Mone et al., 2011; Reijseger et al., 2017; Van Rooy et al., 2011). Accordingly, research studies on job engagement have increased tremendously in the last few years (Agarwal, 2014; Bakker & Albrecht, 2018; Gao et al., 2018; Gupta et al., 2015; Kwon & Yoon, 2015; Rai & Agarwal, 2017; Yang et al., 2017; Zhang et al., 2017).

Prior research has demonstrated that personal resources such as optimism (Xanthopoulou et al., 2007), self-efficacy, and resilience (Bakker, 2009) are significant predictors of job engagement. These resources help engaged employees manage and influence their work positively (Alessandri et al., 2018; Luthans, 2002a). Likewise, Kluemper et al. (2009) suggested that state optimism in individuals assists in reducing their emotional exhaustion and withdrawal as they become more positive concerning their future and the consequences of their job-related efforts. Overall, the cognitive, affective, and motivational properties of state optimism tend to increase nurses’ job engagement (Ragsdale & Beehr, 2016). Accordingly, this study argues that nurses’ state optimism may translate into high job engagement. Consequently, we hypothesize the following:

**Hypothesis 3:** State optimism is significantly and positively associated with nurses’ job engagement.

**The Mediating Role of State Optimism**

Employees who are receiving compassion from their colleagues in the workplace experience feelings of connectedness among themselves, which helps to produce a variety of positive emotions (Folkman & Moskowitz, 2000; Miller, 2007). Several studies have found a significant positive relationship between experienced compassion and positive emotions (Dutton, 2003; Folkman & Moskowitz, 2000; Hallowell, 1999; Lilius et al., 2008). This is because compassionate acts may be considered affective events in the workplace, which trigger positive emotions (Weiss & Cropanzano, 1996). On the other hand, an increase in positive emotions is found to predict good relationships among employees (Sprecher & Fehr, 2005), to increase happiness and self-esteem (Mongrain et al., 2011), positive mood (Chu, 2016), affective organizational commitment (Lilius et al., 2008), identification with employing organization (Subba & Rao, 2017), and work engagement (Gloria & Steinhardt, 2016; Junça-Silva et al., 2017; Kwon & Yoon, 2015).

However, positive organizational behavior researchers have focused on examining the influence of state measures of optimism on critical organizational outcomes (Cameron & Caza, 2004; Millstein et al., 2019; Urzúa et al., 2017; Wright, 2007; Wright et al., 2003). If state optimism is more strongly associated with work-related outcomes, as we propose in this study, administrators should cultivate work environments that allow their employees to feel more optimistic about their job. Accordingly, it is essential to understand the role of state optimism in predicting work...
attitudes such as job engagement (Kluemper et al., 2009; Urzúa et al., 2017).

Since state optimism is influenced by contextual factors (Kluemper et al., 2009; Luthans, 2002a; Ragsdale & Beehr, 2016), and in turn influences positive attitudes and behaviors (Kluemper et al., 2009; Urzúa et al., 2017), this study argues that state optimism will mediate the relationship between experienced compassion and job engagement. Furthermore, AET (Weiss & Cropanzano, 1996) also maintains that positive emotions mediate the relationship between affective workplace events and work attitudes. Therefore, following the above discussion, the current study proposes state optimism as a mediator in the relationship between experienced compassion and job engagement. Consequently, we hypothesize the following:

**Hypothesis 4:** State optimism mediates the relationship between nurses’ experienced compassion and job engagement.

**The Moderating Role of Regulatory Emotional Self-efficacy (RESE)**

RESE is defined as “the self-efficacy beliefs of an individual in managing his/her negative emotions and expressing positive emotions” (Caprara et al., 2008, p. 228). Managing negative emotions refers to self-belief in one’s emotional competence in suppressing negative emotions (e.g., sadness and anger) that may arise in response to the suffering experienced. In contrast, managing positive emotions represents self-belief in one’s ability to express positive emotions (e.g., happiness and optimism) while experiencing pleasant events in one’s life (Caprara et al., 2008). Existing research has also documented the pervasive impact of RESE on the course of individuals’ personal and organizational life and their affective functioning (Mesurado et al., 2018; Wang et al., 2018).

An individual’s actual emotions are based on their beliefs about their ability to regulate their emotions (Zahniser, 2016). Thus, individuals’ perceptions about their RESE may impact the type and level of emotions they experience (Alessandri et al., 2009; Galicia-Moyeda et al., 2013). Hence, nurses who believe that they can manage their negative emotions and express positive emotions are more likely to experience a higher level of state optimism in response to a positive workplace event such as compassion. Consequently, RESE as a personal disposition can influence nurses’ level of state optimism. Therefore, this study argues that nurses with a higher level of RESE will experience a higher level of state optimism in response to a pleasant workplace event in the form of compassion in the workplace.

Furthermore, AET (Weiss & Cropanzano, 1996) also suggests that personal dispositions moderate the relationship between workplace events and affective reactions (positive/negative emotions). Accordingly, we argue that nurses’ levels of RESE might moderate the relationship between experienced compassion and state optimism. Hence, we hypothesize the following:

**Hypothesis 5:** RESE moderates the relationship between experienced compassion and state optimism.

![Figure 1. Theoretical framework.](image-url)
Methods

Research Context

The consequences of supervisor undermining have been explored primarily in the context of business organizations. However, it is pertinent to mention that because they are on the front lines dealing with patients, nurses experiencing supervisor undermining may have severe implications, as they might compromise patient safety (Younas & Sundus, 2018). Therefore, this study was conducted in the healthcare sector, and data were collected from nurses working in public sector hospitals in Pakistan. The healthcare system in Pakistan consists of both private and public-sector hospitals. Public sector healthcare facilities are provided through a coordinated network of district headquarter hospitals, rural health centers, dispensaries, basic health units, and allied medical professionals. Despite having an extensive healthcare infrastructure, Pakistan’s delivery of health services faces some key issues and challenges. These issues stem from the inadequate health budget, rapid population growth, political orientations, environmental factors, and lower doctor-to-patient and nurses-to-patient ratios (World Health Organization, 2017). Furthermore, fear of job loss and of physical assault make nurses more vulnerable to face supervisor undermining instead of reporting such behavior to higher authorities.

Population, Sample, and Procedure

Data were collected using a questionnaire survey of nurses working in various public sector hospitals in Pakistan. A convenient sampling technique is employed to gather data because of the wide dispersion of public sector hospitals across Pakistan. We followed the Krejcie and Morgan (1970) sample size criteria, which suggested that if the study population exceeds 75,000 but does not exceed 1,000,000, a sample of 384 respondents was sufficient. Because of the same, since 99,228 registered nurses are working in public sector hospitals in Pakistan (Pakistan Bureau of Statistics, 2017), a sample of 384 was considered sufficient for this study. For data collection, we contacted the medical superintendents (MS) of different public-sector hospitals and briefed them on the purpose of our research and the scope of data collection. Before collecting data, we sought prior consent from nurses who volunteered to participate in the study. Next, we approached head nurses to invite nurses who were employed in their respective wards for data collection. A cover letter was appended to the questionnaire. It included a statement of confidentiality, and assurance that the individual responses will be kept anonymous and that data will be reported only in the aggregate.

The time-lag data collection technique was adopted to avoid the problem of common method bias. We collected data from four time lags with an interval of 1 month. At Time 1, we asked respondents to create a key comprising the first letters of their first and last names, followed by the name of the month of their birth. We did so to match the responses at different time lags, in addition to maintaining confidentiality. The respondents were asked to enter the same key that they created at Time 1, while filling the questionnaire at Times 2, 3, and 4. This technique made it easier for us to match the responses at different time lags. This matching response technique has also been employed in existing studies (e.g., Fatima et al., 2018).

Initially, 650 questionnaires were distributed among the nurses to collect data on supervisor undermining. We received 574 completed questionnaires at Time 1. After 1 month (at Time 2), these 574 respondents were contacted to fill out the experienced compassion and RESE questionnaires, though only 541 completed them at Time 2. After 1 month (Time 3), these 541 respondents were contacted to fill out the questionnaire on state optimism; 512 were returned at Time 3. One month later (Time 4), these 512 respondents were contacted to fill out the questionnaire on job engagement. A total of 466 respondents completed and returned the questionnaires at Time 4. After removing missing values and unengaged responses, 406 questionnaires were left for final data analysis, with a response rate of 62%.

Prior studies conducted in Asian contexts also observed similar high response rates (Abbas et al., 2014; Raja et al., 2004).

For subcategories, most respondents were female (91.4%), and only 8.6% were male. Of the respondents, 71.7% were married, while 28.3% were single. In the age category, 22.9% of respondents were 24 years or younger, while 45.3% were 25 to 31, 20.4% were 32 to 38, and 11.3% were 39 or older. Hence, most nurses were 25 to 31 years of age. As for work tenure, 37.2% of respondents had 1 to 5 years of experience, while 42.5% had 6 to 10 years, 15.3% had 11 to 15 years, and only 5.4% of respondents had more than 15 years of experience.

Measures

The questionnaire comprised 58 statements. The first part was designed to collect demographic information on the respondents, including their sex, marital status, age, and work experience. The second part of the questionnaire included various measures used in this study. Supervisor undermining was measured using the 13-item scale by Duffy et al. (2002). A sample item was, “How often has your supervisor intentionally hurt your feelings?” Experienced compassion was measured using the three-item scale developed by Lilius et al. (2008). A sample item was, “In the last month, how frequently have you experienced compassion from your co-workers?” State optimism was measured using an eight-item scale developed by Scheier and Carver (1985). A sample item was, “Currently, while at work, I usually expect the best.” To measure the level of nurses’ RESE, the 12-item scale devised by Caprara et al. (2008) was used. A sample item was, “How well can you keep from getting discouraged...”
in the face of difficulties?” Job engagement was measured using the 18-item scale developed by Rich et al. (2010). A sample item included, “I devote a lot of energy to my job.” The Cronbach’s alpha reliabilities of the scales reported in this study were .87, .73, .75, .92, and .96, respectively. The scales used in this study are shown in appendix 1.

Control Variables

Sex, marital status, age, and tenure were used as the possible control variables. Prior research on nursing surveys also suggested controlling for the effects of these variables (Collins & Henderson, 1991; Malik et al., 2020). However, the results of ANOVA revealed that none of these variables had any significant effect on the criterion variables of the study: sex ($F=1.354, p > .05$), marital status ($F=0.413, p > .05$), age ($F=0.297, p > .05$), or working experience ($F=1.203, p > .05$).

Data Analysis and Results

We used structural equation modeling (SEM) to estimate and test the relationships among the study variables. First, we explored the pattern of factor loadings on their respective latent constructs. The results of the factor loading are shown in Table 1. Confirmatory factor analysis (CFA) was then performed to determine the validity of the scales used. Subsequently, the proposed model is compared with different competing models. Furthermore, descriptive statistics, correlation analysis, and path analysis were performed to examine the associations and relationships among the study variables. The results of the data analysis are appended below.

Convergent Validity

The perfect fitness of the measurement model must meet the threshold levels of reliability, validity, and model fitness indices. Composite reliability (CR) and average variance extracted (AVE) are typically calculated to assess convergent validity (Fornell & Larcker, 1981). According to Bagoggi and Yi (1988), if AVE is more significant than 0.5, and CR is greater than 0.6, it establishes convergent validity. For our data, the value of AVE ranged from 0.515 to 0.738, and the value of CR ranges from 0.73 to 0.95. Hence, the convergent validity is proved. The results are shown in Table 2.

Descriptive Statistics and Correlations Analysis

Table 3 highlights the correlations and associated significance levels among all the study variables. Significant positive correlations were observed among all variables. We did not include demographic variables in this analysis because they were found to have insignificant associations with the criterion variables of the study, as depicted by the results of the ANOVA above. We also calculated the Cronbach’s alpha reliabilities of all the measures used in this study. The results demonstrated that all the measures meet the minimum threshold level of 0.70 (Andrew et al., 1976), providing evidence of their reliabilities.

Confirmatory Factor Analysis (CFA)

Before testing the hypotheses using SEM, we performed a CFA. The IBM SPSS Amos software package was used to conduct the CFA, and multiple measures were used to assess model fitness. These measurements included chi-square, RMSEA, IFI, TLI, and CFI. The chi-square value is sensitive to the sample size and is supplemented with a degree of freedom to provide a robust measurement. Hence, model fitness is indicated by the ratio of chi-square divided by degrees of freedom with a value less than 3 and ideally less than 2 (Hair et al., 2010). The RMSEA value should be closer to 0.05. However, IFI, TLI, and CFI values should be close to 0.95 or more for a good model fit (Hair et al., 2010; Hu & Bentler, 1999; Kline, 2005). Our measurement model consisted of five latent variables. However, while performing CFA, one item from supervisor undermining and one item from state optimism were suppressed due to lower factor loadings. As shown in Table 4, the CFA of the five-factor model indicated a good fit compared to other models. All the values met the standard criteria of good fit ($\chi^2=1,558.757$, $df=1,261$, $\chi^2/df=1.236$, $p < .000$, RMSEA = 0.024, IFI = 0.97, TLI = 0.96, and CFI = 0.97). Moreover, all the indicators loaded on the relevant latent constructs with factor loadings greater than 0.50. The results of the factor loading are shown in Table 1.

Consequently, the results of the CFA show that our five-factor model has adequate discriminant validity. Finally, since the data were collected from a single source, this study may still be affected by common method biases. To check this statistically, we used Harman’s single-factor test. According to the results, the single factor extracted 23.055% of the variance. Since it is far less than the threshold level of 50% (Podsakoff et al., 2003), we conclude that there is no threat of common method bias.

Tests of Hypotheses

With good model fitness achieved and convergent and discriminant validities established, we tested the proposed model using SEM in the Amos software package. Figure 2 shows the path diagram of the measurement model. Table 5 presents the results of the hypothesis testing. Hypothesis 1 stated that supervisor undermining is significantly positively related to experienced compassion in the workplace. The results supported this relationship ($\beta = .29, p < .000$). Hypothesis 2 stated that experienced compassion in the workplace is significantly positively related to state optimism. The results also support this relationship ($\beta = .31, p < .000$). Our third hypothesis states that state optimism is
Table 1. Factor Loading of Latent Constructs.

| Component | 1  | 2  | 3  | 4  | 5  |
|-----------|----|----|----|----|----|
| SU1       | 0.667 |    |    |    |    |
| SU2       | 0.685 |    |    |    |    |
| SU3       | 0.641 |    |    |    |    |
| SU4       | 0.648 |    |    |    |    |
| SU5       | 0.675 |    |    |    |    |
| SU6       | 0.681 |    |    |    |    |
| SU7       | 0.619 |    |    |    |    |
| SU8       | 0.631 |    |    |    |    |
| SU9       | 0.655 |    |    |    |    |
| SU10      | 0.626 |    |    |    |    |
| SU12      | 0.637 |    |    |    |    |
| SU13      | 0.597 |    |    |    |    |
| EC1       |    | 0.758 |    |    |    |
| EC2       |    | 0.766 |    |    |    |
| EC3       |    | 0.721 |    |    |    |
| RES1      | 0.737 |    |    |    |    |
| RES2      | 0.706 |    |    |    |    |
| RES3      | 0.721 |    |    |    |    |
| RES4      | 0.685 |    |    |    |    |
| RES5      | 0.732 |    |    |    |    |
| RES6      | 0.691 |    |    |    |    |
| RES7      | 0.716 |    |    |    |    |
| RES8      | 0.703 |    |    |    |    |
| RES9      | 0.697 |    |    |    |    |
| RES10     | 0.698 |    |    |    |    |
| RES11     | 0.712 |    |    |    |    |
| RES12     | 0.713 |    |    |    |    |
| SO1       |    |    | 0.578 |    |    |
| SO2       |    |    | 0.579 |    |    |
| SO3       |    |    | 0.554 |    |    |
| SO4       |    |    | 0.657 |    |    |
| SO5       |    |    | 0.618 |    |    |
| SO6       |    |    | 0.620 |    |    |
| SO7       |    |    | 0.650 |    |    |
| SO8       |    |    | 0.650 |    |    |
| JE1       | 0.759 |    |    |    |    |
| JE2       | 0.715 |    |    |    |    |
| JE3       | 0.731 |    |    |    |    |
| JE4       | 0.745 |    |    |    |    |
| JE5       | 0.710 |    |    |    |    |
| JE6       | 0.756 |    |    |    |    |
| JE7       | 0.729 |    |    |    |    |
| JE8       | 0.738 |    |    |    |    |
| JE9       | 0.722 |    |    |    |    |
| JE10      | 0.756 |    |    |    |    |
| JE11      | 0.784 |    |    |    |    |
| JE12      | 0.729 |    |    |    |    |
| JE13      | 0.774 |    |    |    |    |
| JE14      | 0.698 |    |    |    |    |
| JE15      | 0.744 |    |    |    |    |
| JE16      | 0.776 |    |    |    |    |
| JE17      | 0.743 |    |    |    |    |
| JE18      | 0.752 |    |    |    |    |

Note. Extraction method: principal component analysis. Rotation method: varimax with Kaiser normalization.

Table 2. Validity Upshots.

| Constructs | CR | AVE |
|------------|----|-----|
| Supervisor undermining | 0.880 | 0.570 |
| Experienced compassion | 0.731 | 0.665 |
| State optimism | 0.771 | 0.515 |
| Job engagement | 0.956 | 0.738 |
| RESE | 0.918 | 0.672 |

Note. CR = composite reliability; AVE = average variance extracted.

Table 3. Descriptive Statistics, Correlations, and Alpha Reliabilities (in Parentheses).

| Variables | Mean | SD  | 1  | 2  | 3  | 4  | 5  |
|-----------|------|-----|----|----|----|----|----|
| SU        | 3.24 | 0.72 |    |    |    |    |    |
| EC        | 3.35 | 0.89 | .290** | (.73) |    |    |    |
| SO        | 3.39 | 0.74 | .321*** | .353** | (.75) |    |    |
| JE        | 3.12 | 0.91 | .144** | .278** | .446** | (.96) |    |
| RESE      | 3.22 | 0.82 | .203** | .151** | .303** | .299** | (.92) |

Note. n=406. SD = standard deviation; SU = supervisor undermining; EC = experienced compassion; SO = state optimism; JE = job engagement; RESE = regulatory emotional self-efficacy. Entries in bold are values of Alpha Reliabilities. *p < .05. **p < .01.

significantly and positively related to job engagement. We also found empirical support for this relationship (β = .39, p < .000).

Hypothesis 4 stated that state optimism mediates the relationship between experienced compassion and job engagement. We performed mediation analysis using the bootstrapping method in Amos and requested 5,000 samples. A 95% bias-corrected bootstrap confidence interval of (0.78–0.183) with p < .000 provided empirical evidence of mediation in the model, since zero does not lie between the lower and upper bounds. Consequently, Hypothesis 4 was supported. The results of the mediation analysis are presented in Table 6.

We performed a moderation analysis using simple slope analysis. Hypothesis 5 stated that RESE moderates the relationship between experienced compassion and state optimism. To test this hypothesis, we centered on the independent and moderating variables and then created an interaction term for them. The results of the moderation analysis supported the proposed moderation of RESE, since the interaction term was significant (β = –.153, p < .000). The moderation effect is also evident from the upward slope of the simple slope analysis (Figure 3), which depicts a positive relationship between experienced compassion and state optimism at high values of the moderator (RESE). Furthermore, we tested the association between experienced compassion and state optimism at low and high values of the moderator (RESE). The results showed that the positive association between experienced compassion and
state optimism was more potent at a higher level of RESE ($\beta = .408$, $p < .000$), and when RESE was low, the association between experienced compassion and state optimism became weaker and even became non-significant ($\beta = .111$, $p > .05$). Consequently, it can be inferred that an increase in RESE tends to strengthen the positive association between experienced compassion and state optimism. Hence, Hypothesis 5 is supported. The results of the moderation analyses are presented in Table 7.

### Table 4. CFA of the Measurement Models.

| Measurement models | $\chi^2$ | df | $\chi^2$/df | RMSEA | IFI | TLI | CFI |
|--------------------|---------|----|-------------|-------|-----|-----|-----|
| Initial five factor model | 2,174.201 | 1,264 | 1.720 | 0.042 | 0.91 | 0.90 | 0.91 |
| Final five factor model | 1,558.757 | 1,261 | 1.236 | 0.024 | 0.97 | 0.96 | 0.97 |
| Four factor (combined SU, SO) | 2,651.320 | 1,268 | 2.091 | 0.052 | 0.86 | 0.85 | 0.86 |
| Three factor (SU, SO, RESE) | 4,018.631 | 1,271 | 3.162 | 0.073 | 0.73 | 0.71 | 0.73 |
| Two factor (SU, EC, RESE, SO) | 4,259.518 | 1,273 | 3.346 | 0.076 | 0.71 | 0.69 | 0.71 |
| One factor (all items combined) | 6,109.913 | 1,274 | 4.796 | 0.096 | 0.53 | 0.51 | 0.53 |

Note. $\chi^2$ = chi square; df = degrees of freedom; RMSEA = root mean square error of approximation; IFI = incremental fit index; TLI = Tucker–Lewis fit index; CFI = comparative fit index. Entries in bold are the values of final five factor model.

### Table 5. Standardized Coefficients for Structural Paths.

| Structural path | Estimate | SE | CR | p-Value |
|-----------------|----------|----|----|---------|
| SU $\rightarrow$ EC | 0.290*** | 0.059 | 6.098 | 000 |
| EC $\rightarrow$ SO | 0.315*** | 0.037 | 7.081 | 000 |
| SO $\rightarrow$ JE | 0.395*** | 0.057 | 8.443 | 000 |

Note. N=406. SU = supervisor undermining; EC = experienced compassion; SO = state optimism; JE = job engagement; SE = standard error; CR = critical ratio. ***$p < .000$. 

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Figure 2. The path diagram of the measurement model.
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Discussion

A survey of 406 nurses at public sector hospitals in Pakistan supported this study’s hypotheses. The results showed that supervisor undermining triggers compassion in the workplace. In addition, there was a significant association between experienced compassion and state optimism and job engagement. Furthermore, the mediating role of state optimism between experienced compassion and job engagement was substantiated. Finally, the role of regulatory emotional self-efficacy as a moderator between experienced compassion and state optimism was confirmed.

The results depicted that supervisor undermining triggers compassion in the workplace. This finding is consistent with the theoretical reasoning that negative social interactions and suffering in the workplace trigger compassionate responses (Dutton et al., 2014; Lilius et al., 2008; Plante, 2020; Runyan et al., 2019; Subba & Rao, 2017). Similarly, AET (Weiss & Cropanzano, 1996) also suggested a positive association between workplace events and affective reactions in employees. This implies that when something good happens in the workplace, employees are able to cultivate positive emotions from it.

The findings of our study also depicted a significant association between experienced compassion and state optimism. This finding is consistent with earlier studies highlighting the significance of positive emotions in influencing desired workplace attitudes and behaviors (Gloria & Steinhardt, 2016; Junça-Silva et al., 2017). This implies that personal resources help employees positively influence their jobs by increasing their job engagement.

The results also confirmed the mediation of state optimism in the relationship between experienced compassion and job engagement. This finding is also consistent with the AET framework (Weiss & Cropanzano, 1996), which maintains that affective reactions mediate the relationship between workplace events and employees’ attitudes. This is because state optimism is predicted by situational or contextual factors that trigger positive attitudes and behaviors (Kluemper et al., 2009; Urzúa et al., 2017). When nurses who are the victims of supervisor undermining experience compassion from their colleagues or group members, they reduce their emotional exhaustion and cultivate state optimism as they become more positive about their future and their job-related efforts. In contrast, state optimism helps nurses increase their level of absorption and dedication with the job as they become less depressed from supervisor undermining. In all, state optimism’s cognitive, affective, and motivational properties help nurses increase their job engagement (Ragsdale & Beehr, 2016).

Finally, our study established the moderating role of RESE in the relationship between experienced compassion and state optimism. This finding is consistent with those of other studies (Extremera & Rey, 2015; Too & Butterworth, 2018; Zahniser, 2016). Individuals differ in their ability to manage their emotions. Those who can handle negative emotions and who generally show positive emotions tend to have more personal resources. These resources help them deal with negative situations and exhibit positive attitudes and behaviors (Caprara et al., 2010). Since compassion occurs in

Table 6. Standardized Indirect Path Coefficients for Mediation Analysis.

| Indirect path | Indirect effect | SE  | BC 95% CI (LL) | BC 95% CI (UL) |
|---------------|----------------|-----|----------------|----------------|
| EC → SO → JE  | 0.125***       | 0.026| 0.078          | 0.183          |

Note. N=406, bootstrap sample size = 5,000. EC = experienced compassion; SO = state optimism; JE = job engagement; BC 95% CI = bootstrap confidence intervals.

***p < .000.
the face of suffering and pain in employees’ lives (Dutton et al., 2014; Hur et al., 2016), nurses with a higher level of RESE can better manage their negative emotions and express positive emotions such as state optimism when they experience compassion in the workplace.

Conclusion and Implications

Overall, this study suggests that supervisor undermining triggers compassion in the workplace. Furthermore, this study also highlighted the role of compassion in cultivating state optimism in nurses who are the victims of supervisor undermining, which ultimately increases their job engagement. Hence, state optimism is identified as a salient discrete emotion that mediates the relationship between experienced compassion and job engagement. Finally, this study established the moderating role of RESE in the relationship between experienced compassion and state optimism. We hope this study will stimulate new avenues for research on the role of compassion in alleviating workplace suffering and influencing positive attitudes and behaviors, and as it supports Frost’s (2003) assertion that compassion does, indeed, matter.

This study has important theoretical and practical implications. First, it enriches our understanding of the effects of compassion on nurses’ job engagement. Although studies have confirmed that compassion increases employees’ job engagement, the mechanism of state optimism between experienced compassion and job engagement is this study’s unique contribution. Similarly, the moderating role of RESE in the relationship between experienced compassion and state optimism is a novel contribution to the existing literature. This study has various implications for managerial practices. First, it suggests that the administrators of public sector hospitals in Pakistan can mitigate the negative consequences of workplace stressors, such as supervisor undermining, by promoting compassionate acts in the workplace.

Furthermore, by encouraging compassion in the workplace, they can also increase the job engagement of their nursing staff and can ultimately improve the functioning of their healthcare institutions by implementing practices that encourage compassion in the workplace. This can be achieved by using careful selection, socialization, and training practices, nurturing high-quality relations among employees, employee support practices, and similar practices that encourage and foster compassion in the workplace.

Similarly, since nurses with higher levels of emotional regulation can effectively cope with job stressors such as supervisor undermining, the importance of nurturing regulatory emotional self-efficacy becomes paramount for administrators of healthcare institutions. Likewise, managerial interventions should also focus on fostering positive states in nurses, such as state optimism, by encouraging and promoting positive social interactions in the workplace. In doing so, they can increase the job engagement of their nursing staff, which can result in less expensive, more convenient, and more effective treatments for patients.

Limitations and Future Research

Although our study has some persuasive findings and adopted a robust methodological approach (e.g., data from four time lags), some limitations deserve attention. First, we conducted this study in Pakistan’s public healthcare sector. A detailed comparative investigation of the public and private sectors is needed to obtain more robust findings. Second, convenience sampling was used to approach the respondents. The results might have been more robust if a more sophisticated sampling technique had been utilized. Third, we examined the mediating role of state optimism between experienced compassion and job engagement. However, other mediating variables may also be considered in future studies. For instance, future researchers may explore the role of other distinct positive emotions such as hopefulness and gratitude (Erreygers et al., 2019; Zeelenberg, 2019). Fourth, we conducted this study in a Pakistani cultural context. Future researchers may replicate this study in a different cultural context to increase its external validity and generalizability. Finally, a wide range of workplace stressors may be explored by future researchers for their potential to trigger compassion in the workplace, such as organizational injustice, abusive supervision, incivility, and harassment, which are highly pervasive and firmly embedded in the public sector organizations of Pakistan.

Table 7. Moderation Analysis.

| Structural path                | Estimate | SE  | CR    | p-Value |
|-------------------------------|----------|-----|-------|---------|
| EC → SO                       | 0.315*** | 0.037 | 7.081 | 000     |
| RESE → SO                     | 0.263*** | 0.040 | 5.890 | 000     |
| INT (RESE × EC) → SO          | 0.153*** | 0.043 | 3.432 | 000     |

Note. EC = experienced compassion; SO = state optimism; RESE = regulatory emotional self-efficacy; SE = standard error; CR = critical ratio.

***p < .000.
Appendix 1

Scales of the Measures

T 1

Name/Code________________

Supervisor Undermining

Instructions: Please consider the past 4 weeks and answer the following questions with the response categories given below:

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Never | About once a week | Several times a week | Almost everyday | Everyday |

How often has your supervisor intentionally:

1. _____ Hurt your feelings?
2. _____ Put you down when you questioned work procedures?
3. _____ Undermined your effort to be successful on the job?
4. _____ Let you know they did not like you or something about you?
5. _____ Talked bad about you behind your back?
6. _____ Insulted you?
7. _____ Belittled you or your ideas?
8. _____ Spread rumors about you?
9. _____ Made you feel incompetent?
10. _____ Delayed work to make you look bad or slow you down?
11. _____ Talked down to you?
12. _____ Gave you the silent treatment?
13. _____ Did not defend you when people spoke poorly of you?

T 2

Name/Code________________

Experienced Compassion

Instructions: Please indicate how frequently you have experienced compassion in the last month using a five-point Likert scale ranging from 1 “never” to 5 “always.”

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Never | Rarely | Sometimes | Very often | Always |

1. _____ In the last month, how frequently you experienced compassion on the job
2. _____ In the last month, how frequently you experienced compassion from your in-group members
3. _____ In the last month, how frequently you experienced compassion from your co-workers.

T 3

Name/Code________________

State Optimism

Instructions: Using the 1 to 5 scale below, indicate the greatest amount that you are encountering each of the following affective states:

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Disagree Strongly | Disagree a little | Neither agree nor disagree | Agree a little | Agree Strongly |

1. _____Currently, while at work, I usually expect the best.
2. _____Currently, while at work, if something can go wrong for me, it will.
3. ________Currently, while at work, I look on the bright side of things.
4. ________Currently, while at work, I’m optimistic about my future.
5. ________Currently, while at work, I hardly expect things to go my way.
6. ________Currently, while at work, Things never work out the way I want them to
7. ________Currently, while at work, I’m a believer in the idea that “every cloud has a silver lining.”
8. ________Currently, while at work, I rarely count on (anticipate) good things happening to me.

T 4 Name/Code________________

Job Engagement

Instructions: Please indicate the extent to which you agree or disagree with each of the following statements using a five-point Likert scale with 1 (strongly disagree) to 5 (strongly agree).

|   | 1 Strongly disagree | 2 Disagree a little | 3 Neither agree nor disagree | 4 Agree a little | 5 Strongly agree |
|---|---------------------|---------------------|-----------------------------|-----------------|-----------------|
| 1 | I work with intensity on my job |
| 2 | I exert my full effort to my job |
| 3 | I devote a lot of energy to my job |
| 4 | I try my hardest to perform well on my job |
| 5 | I strive as hard as I can to complete my job |
| 6 | I exert a lot of energy on my job |
| 7 | I am enthusiastic in my job |
| 8 | I feel energetic at my job |
| 9 | I am interested in my job |
| 10 | I am proud of my job |
| 11 | I feel positive about my job |
| 12 | I am excited about my job |
| 13 | At work, my mind is focused on my job |
| 14 | At work, I pay a lot of attention to my job |
| 15 | At work, I focus a great deal of attention on my job |
| 16 | At work, I am absorbed by my job |
| 17 | At work, I concentrate on my job |
| 18 | At work, I devote a lot of attention to my job |

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