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Examining the Moderating Role of Workload in the Relationship between Emotional Intelligence and Caring Behavior in Healthcare Organizations

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Abstract

Caring behavior is fundamental in the healthcare setting. This study examined the moderation role of workload in predicting the relationship between emotional intelligence and caring behavior in healthcare organizations. This study is a quantitative, cross-sectional survey, and data was collected through a self-administered questionnaire. The sample comprises 121 healthcare professionals, including medical doctors, nurses, pharmacists, laboratory scientists, and medical records officers in publicly-owned hospitals. The sample size consists of 30% males and 70% of females with a mean age of 41.32 years (SD = 10.25). Results revealed that emotional intelligence has a positive and significant predictive relationship with caring behavior, and that workload has a negative but non-significant interaction effect in the relationship. The findings suggest that emotional intelligence and the volume of work tasks employees are engaged in could have an impact on work outcomes. This knowledge has practical implications for human resource management in terms of recruitment, selection, job assignment, and further training of employees.

Keywords: emotional intelligence, cross-sectional design, workload, affective event theory, healthcare organizations

1. INTRODUCTION

Employees come into the work organization with a varied form of intelligence that influenced their work behavior with consequences for the effective functioning of the organization (Kalairasi, Amarayathi, & Soniya, 2014). Among such attributes is emotional intelligence (EI), which is the ability to perceive, control, and evaluate emotions (Goswami & Talukdar, 2013). It is one of the organizationally desirable practices that is receiving substantial research concern alongside caring behavior. Caring behavior is described as a nurturing manner of relating to other individuals to whom one feels a personal sense of obligation and accountability. There are some studies on the relationship between EI and caring behavior in healthcare organizations (Hidayati, Rifai, & Ni'mah, 2017; Johnson, 2017; Kaur, Sambasivan, & Kumar; 2013; Sunaryo, Nirwanto, & Manan, 2017; Wodwaski, 2019), Nightingale, Spiby, Sheen, and Slade's (2018). A review of EI and caring behavior in healthcare settings revealed that the studies almost exclusively concentrated on nurses and the nursing profession. The trend is evidenced in the overriding sample of studies reported in Nightingale et al.'s (2018) review. There are several review papers (i.e., Abraham & Scaria, 2017; Cleary, West, Lopez, Kornhaber, 2018; Landa & López-Zafra, 2010; Lewis, 2019; Noquez, 2019; Prezerakos, 2018; Raghubir, 2018; Smith, Profetto-McGrath, & Cummings, 2009; Thomas & Natarajan, 2017) on EI and Caring behavior. However, there are two literature review papers on EI and caring behavior in nursing (i.e., Maniago, 2017; Noquez, 2019), while there is no such review on the other healthcare professionals. This inclination appears to continue beyond the period of the reviews as the few recent and related empirical and review papers (e.g., Aladhyani, Almotairi, Almutairi, & Alotaibi, 2020; Alsufyani, Baker & Alsufyani, 2020; Puri & Mehta, 2020) also mostly focus on nurses and the nursing profession.

In healthcare facilities, most health seekers first get in contact with the security officers at the gate, records personnel who take a record of the patient for the hospital, medical doctors who prescribed the drugs, pharmacists who dispensed the prescribed medications, and the nurses for the administration of the drugs to the patient, among others. At every contact, the health seeker needs care; thus, there is a need to gauge and understand the caring behavior of every group of employees in healthcare organizations. Therefore, care for the patient is a cumulative experience that builds from contact with various groups, particularly core health professionals within the health facility. Consequently, the sample for this study comprises the five core professionals (medical doctors, nurses, medical record officers, pharmacists, and laboratory scientists) in any health care facility. Unlike the samples used in the existing studies, which are almost solely limited to the nursing profession, the inclusive sample of this study is intended to produce results that would represent the culture of caring in the organization. With the five core professions forming this study sample, the emerging results will be composite, having implications for broader categories of health care employees rather than only the nurses. The composite form of results is vital as interventions in health care facilities are typically designed either for core health professionals or non –core health professionals.

More so, in Nightingale et al.'s (2018) integrative review and Maniago's (2017) meta-analysis, the scarcity of empirical studies that linked EI to caring behavior was noted. Although not pointed out in the reviews, none of the available studies on the relationship between EI and caring behavior examined the mechanism behind the widely reported positive relationship. An intervening variable, mostly represented by the moderator and mediator, has the potential to alter the degree and direction of or explain the relationship between two or more other variables. As relations between organizational variables are not usually direct, there is often a need for third variable analysis (Mohr, 1982). The body of knowledge on how third variables impact a given relationship has a great deal of practical importance as it guides decisions on "when" and "how" to manipulate the link.

In this study, the workload is examined as a potential moderator in the relationship between EI and caring behavior in healthcare organizations. In most developing economies, there is a shortage of employees in healthcare organizations, and this has an impact on their workload (Baethge, Müller, & Rigotti, 2016). Affective event theory (Weiss & Cropanzano, 1996) explained workload potential as a moderator in the relationship. The approach proposed that workplace events cause emotional reactions in employees, which then influence attitudes and practice at the workplace. Workplace events could be hassles (e.g., co-worker inefficiency and negligence) or uplifts (e.g., co-workers' support) or both. Inferred from the theory, and applied to the present study, the workload is a hassle that could influence negative emotions on the part of the employees, and such feelings could impair caring behavior. However, while the possibility of workload moderating the relationship between EI and caring behavior is proposed in AET, there is an absence of empirical investigation on the issue. The thesis of this study is that the degree of EI in healthcare employees will be reflected in their caring behavior and that the effect of EI on caring behavior will change along with the level of workload experienced. The purpose of this study is to contribute to the existing knowledge on how EI and workload are related to

caring practice. This body of knowledge would be of practical value in achieving caring behavior in healthcare facilities.

2. THEORETICAL FRAMEWORK

2.1 Emotional intelligence

Salovey and Mayer (1990) defined emotional intelligence as the capability to observe the feelings and emotions of self and others, appreciate differences in the mood and emotions, and to use the understanding as a guide in one's thinking and behavior. Accordingly, EI has four related mental abilities dimensions of perception of emotion, emotional facilitation of thought, understanding emotions, and managing emotions (Mayer and Salovey, 1997) that are express emotions in different ways. EI, as a phenomenon, is receiving a considerable degree of empirical concern for two reasons. First, several studies of EI relate to desirable workplace attitudes and behavior. That includes organizational commitment (Kumari & Priya, 2017), job satisfaction (Uslu & Uslu, 2019), creativity (Silva & Coelho, 2019), and organizational outcomes such as the intention to leave (Uslu & Uslu, 2019) and job stress (Leon & Tănăsescu, 2018). And second, there is the understanding that EI can be positively manipulated and that it is transferable. The proposal that EI is developable and transferable is getting empirical confirmation. For instance, Motamedi, Ghobari-Bonab, Beh-pajooh, Yekta, and Afrooz (2017) reported that EI training activities resulted in a significant increase in the EI of single parented adolescents with an emotional and behavioral problem.

2.2 Caring behavior

Caring is being considerate and assisting someone with basic needs (Watson, 2005), which is unique to individuals and can be defined based upon physiological, psychological, social, and spiritual needs (Flynn, 2016). Caring is holistic in the modern health system when it addresses clients' physical, psychological, spiritual needs and health-related factors (Leathard & Cook, 2009), which are embraced, cherished and valued by health care professionals (Flynn, 2016). This is because the act of caring is a robust personal quality, a socially acceptable virtue, and a subjective measure of goodness in society (Held, 2007). Caring behavior, as evident in practice, is dependent upon variables such as staffing levels, busy work environments, and individual needs (Ball, 2012). The provision of high-quality care involves doing the right thing at the right time and improving the wellbeing outcomes with subsequent influence on families and communities (Booyens, 2008). Relationships among employees can be threatened by negative behaviors such as conflict, emotional abuse, and incivility due to increasingly complex and stress-laden work environments (Almost, Wolff, Mildon et al., 2015). Respect and excellent communication can, therefore, be fundamental to the smooth organizational running and also a pre-condition for the way people interact as members of a workplace organization (Hammett & Staeheli, 2011). Watson's (1999) caring theory, which focuses on the interpretation of perceptions of caring, is useful in gaining an understanding of what constitutes caring behaviors and, importantly, the caring relationship (Fitzpatrick & Whall, 2005). This relationship depends on the commitment to protect and enhance human dignity. The caring consciousness of employees is essential to connect with and understand the patient perspective (Flynn, 2013). The encompassing value of caring behavior calls for sufficient knowledge of its antecedents.

3. HYPOTHESIS DEVELOPMENT

3.1 Emotional intelligence and caring behavior

Emotional intelligence indicates the ability to understand and manage emotions, and it consists of several components, including self-awareness, self-regulation, motivation, empathy, and social skills (Jameson, 2019). These components have inherent characteristics that predispose people to caring behavior. For instance, aside from the capacities to recognize and understand emotions, self-aware individuals have a sense of how their actions, moods, and feelings about others take effect. Such understanding will minimize the expression of hurting behavior and foster a better understanding of when others need support, which is a foundation for caring. According to Burnard (1992), caring, the foundation of good nursing, depends on one knowing more about oneself, because one cannot help other people until one is a bit clearer about oneself. In a review of factors that relate to nurses' caring behaviors, Prompahaku, Nilmanat, and Kongsuwan (2011) reported two studies (Daodee, 1994; Intong, Sumalia, Sintara, & Tontheerapat, 2005) that found a positive relationship between self-awareness and caring behaviors. Empathy is the ability to put oneself in the place of other people so that a person can visualize and feel the experiences of other(s) from the same perspective. These qualities are likely to precede caring behavior. It puts emotionally intelligent individuals in an excellent position to exhibit

behavior that others will find more acceptable and relieving to them. Empirically, empathy has been found to positively relate to prosocial behavior (Jocelyn et al., 2012). Wilhelm and Bekkers (2010) found that empathic concern is related to many types of helping behavior (nine out of ten assessed in the study). EI individuals are self-motivating, and caring for others comes from the self rather than being influenced by extrinsic rewards. Some studies (e.g., Al-Hawary & Banat, 2017; Hee & Binti, 2016) have observed a positive relationship between both intrinsic and extrinsic motivation and nurses' job performance. EI individuals tend to have strong social skills, are active listeners; they invest in ensuring healthy social relationships and help others around them to succeed (Cherry, 2020).

Relatedly, an empirical study on the link between EI and caring behavior, is connected with findings indicating a positive relationship. For instance, Sunaryo et al. (2017) observed a positive effect of emotional and spiritual intelligence on caring behavior. They noted that EI was not as relevant as spiritual intelligence in predicting the behavior. According to Rego, Godinho, Mcqueen, and Cunha (2010), EI accounts for a significant but small unique variation in caring behaviorism. While self-encouragement dimensions predicted caring behavior most, the impact of the high empathy dimension could be negative or positive on caring behaviors depending on how other aspects are combined. Nightingale et al. (2018), in a literature review on healthcare organizations, reported that EI relates both to physical and emotional caring. It was noted by Kaur et al. (2013) that EI influenced psychological ownership, burnout, and caring behavior and that while the relationship between EI and caring behavior was mediated by psychological ownership, burnout mediated the relationship between psychological ownership and caring behavior.

Existing studies on the relationship between EI and caring behavior solely hypothesized and analyzed the latter as a composite variable (Hidayati et al., 2017; Kaur et al., 2013; Johnson, 2017). However, several related studies have revealed that EI relates positively with dimensions of caring behavior such as respectfulness, assurance, connectedness, and knowledge and skills. For instance, EI significantly correlated with altruism (Charbonnneau & Nicol, 2002), interpersonal relations and communication, and the professional development dimension of nurses' performance (Beauvais, Brandy, O'Shea, & Griffin, 2010), nursing students' clinical/procedural performance skills and their supportive clinical performance skills (Kim & Sohn, 2019; Ibrahim, Elgzar, Mohamed, & Salem, 2016). Empathy, a dimension of EI, has positive and indirect effects on job performance knowledge (Kelley, Justice, Waller, & Johnson, 2013). EI has a significant positive relationship with communication skills (Raeissi, Zandian, Mirzarahimy, Delavari, Moghadam, & Rahimi, 2020). These outcomes of EI either represent or lead to caring behavior. Therefore, we hypothesized that:

H1: EI has a positive predictive relationship with (a) caring behavior, (b) the assurance dimension of caring behavior, (c) the knowledge and skill dimension of caring behavior, (d) the respectfulness dimension of caring behavior, and (d) the connectedness dimension of caring behavior among employees in healthcare organizations.

3.2 Workload as a moderator in the relationship between EI and caring behavior

Workload generally refers to the amount of effort a worker makes to meet the demands inherent in his/her job under defined physical circumstances, concerning the work condition and the varied mechanisms existing in the job roles. It is the volume of work that is assigned to an individual that he or she has to complete in a specified time (Chen & Spector, 1992). Therefore, the workload is not an intrinsic characteristic. Instead, it comes from the relations between what is required to carry out a task, the conditions under which the job was carried out, and the ability, behaviors, and perception of the individual who carried out the task (Hart & Staveland, 1988). Workload has been discussed as having both physical and mental or psychological aspects. The physical workload is about the human task performance threshold that implies employees' health and safety.

In contrast, mental workload refers to the cognitive performance threshold in matters of information processing. Some studies exist on the workload and caring behavior relationship. For instance, Syahridhaa, Sjattar, and Hadju (2015) reported a significant correlation between workload and the readiness and willingness dimensions of caring behavior. Goh (2017) observed statistically significantly weak positive and negative relationships between patient satisfaction with nursing care scores and workload management data, respectively. Mudallal, Saleh, Al-Modallal, and Abdel-Rahman (2017) showed that work conditions have a direct influence on the quality of care.

As noted earlier in this work, the affective event theory explained how and why the workload mediates the relationship between EI and caring behavior. The approach draws attention to the effect of how what employees experienced and perceived at work influence their work attitudes and behavior, particularly those that have to do with feelings rather than cognition. Several researchers (e.g., Wegge, Van-Dick, Fisher, West, & Dawson, 2006; Grandey, Tam & Brauburge, 2002; Erol-Korkmazthe, 2010) have offered confirmation of the theory in varied settings. In particular, Grandey, Tam, and Brauburge

(2002) reported that negative affectivity is related to adverse emotional reactions at work. Negative emotional responses were associated with leaving the job and positive affectivity directly related to job satisfaction.

Similarly, an increasing workload goes with the growing demand for physical and mental effort and time. Such pressure builds two related circumstances for the individual that will impede his or her caring disposition. An individual experiencing an increase in workload has less time available to show care to the patients and is likely to experience work overload, which triggers several negative emotions that are adverse to caring behavior. As Amendolair (2012) observed, time spent with patients was a predictor of the nurses' ability to express caring behaviors. In addition to the theoretical exposition, several empirical studies have noted that workload is positively associated with several factors that impact negatively on caring behavior. Increased workload leads to job stress (Susiarty, Suparman, Suryatni, 2019), and burnout (Liu & Lo, 2018), among others, and stress and burnout negatively impact on caring behavior (Sarafis et al., 2016). Burnout mediates the relationship between spiritual intelligence, psychological ownership, and caring behavior (Kaur et al., 2013).

Similarly, workload relates negatively to several factors that positively impact on caring behavior, such as job satisfaction (Amendolair, 2012; Tentama, Rahmawati, & Muhopilah, 2019). More so, workload impacts negatively on job performance (Susiarty, Suparman, & Suryatni, 2019), and caring behavior is an essential aspect of individual performance in health care facilities. Therefore, it is hypothesized that:

H2: Workload moderates the positive predictive relationship between (a) EI and caring behavior, (b) EI and the assurance dimension of caring behavior, (c) EI and the knowledge and skill dimension of caring behavior, (d) EI and the respectfulness dimension of caring behavior, and (e) EI and the connectedness dimension of caring behavior in healthcare organizations in such a way that each relationship becomes significantly negative.

4. METHODOLOGY

4.1 Sample and Procedure

One hundred and twenty-one healthcare workers were sampled from publicly owned health organizations. The sample consists of 20 medical doctors, 33 nurses, 20 pharmacists, 22 laboratory scientists, and 26 medical record officers. The adopted participant sample size of 121 was adjudged satisfactory as it was inconsistent with Dewberry's (2004) recommendation that when the expected effect size is unknown, the sample size required for a medium effect size should be adopted. Males comprise 30%, females 70%, single 18%, and married 82%. Their mean age was 41.32 years (SD, 10.25; range, 40 years). The sample is literate, and that gives validity to the self-report measure adopted. The questionnaires were administered to the employees at their workplaces. A non-random sampling technique (convenience) was used in the distribution of the surveys. It is a convenience sample because the participants used were based on availability. The use of non-random samples is a common feature in organizational behavior studies, mostly in this research location, where sampling frames are often not available or exceptionally difficult to access.

5. MEASURES

5.1 Emotional Intelligence Measure

Hall, Haggerty, Cooper, Golden, and Dornheim's (1998) 33-item scale on EI was adapted. The tests were based on Salovey and Mayer's (1990) EI model, which has been described as a more scientifically defensible approach to emotional intelligence, particularly when compared to the Golman and Gotten models (Epstein & Sharma, 1998). Compared to some measures on EI, Hall et al.'s (1998) scale has a moderate number of items. In recent times measuring scales with too many questions have found less favor with researchers as such scales have been widely reported not to have better psychometric properties than similar measuring scales with fewer items.

5.2 Caring Behavior Measure

Wu, Larrabee, and Putman's (2006) 24-item Caring Behavior Inventory (CBI) was adapted to accommodate both nurses and other healthcare professionals that participated in this study. The scale has four dimensions that covered assurance (8 items), knowledge, and skill (5 items), respectfulness (6 items), and connectedness (5 items). Respectfulness entails courteous regard for the other; the assurance dimension entails investment in the other's need and security, connectedness covered optimistic and constant readiness on the part of the healthcare worker to help the other, and knowledge

and skill identified proficient, informed, and skillful healthcare workers. On development of the scale the authors reported Cronbach's α = .95 (patients) and α = .96 (employees); test re-test reliability of α = .88 (patient) and α = .86 (employees).

5.3 Workload measure

The Spector and Jex (1998) 5-item scale was used to measure workload. It is a subjective measure of workload as it evaluates workload as perceived by workers. Compared with the physiological tests that assess workload by assessing parameters such as heart rate and blood pressure in response to stress. The subjective measure is adjudged to be more comfortable in terms of generating data, being less intrusive, less costly, and having greater validity (Young, Zavelina, & Hooper, 2008). A five-point Likert method of the summated rating scale (5-strongly agree, 4-agree, 3-undecided, 2-disagree, 1-strongly disagree) was adopted as it generates sufficient variability in response. Creating acceptable variance among respondents through scaling gives validity to statistical outputs (Stone, 1978). For all the scales, scores were computed by averaging each participant's responses to the items.

6. DESIGN AND STATISTICAL TOOL

The study design was cross-sectional as data were collected from the sample at one point in time. This design is appropriate as the hypotheses tested were in generalized and sweeping forms (e.g., EI positively and significantly predicts caring behavior among employees in healthcare organizations). This type of presentation seeks results that have extensive coverage. Therefore, the potential for effects generalization that is associated with the survey makes it very suitable for this study. Data were collected and analyzed at the individual level. IBM-SPSS version 26 was used for data analysis.

6.1 Control variables

Gender, age, and marital status were included as control variables in data analysis. Some theories, such as Eagly and Wood's (2012) sociocultural and Bussey and Bandura's (1999) cognitive, social learning theory, have acknowledged that these demographic variables influence behavior in social settings, including work organizations.

6.2 Common method variance

Data were collected with a self-report measure that has the potential for common method variance. Therefore, some procedural rules that control for common method variance were incorporated in the design of this study. For instance, the various items that make up the EI, workload, and caring behavior scales were presented in alternating order on the research questionnaire. This arrangement prevents similar thoughts from flowing from one item to the other. In the cover letter to the survey, the participants were assured of their anonymity and confidentiality. The introductory letter also includes the statement "there is no wrong or right answer." All these aimed at reducing evaluation apprehension that would enhance honesty in response (Podsakoff, Mackenzie, & Podsakoff, 2012; Tehseen, Ramayah, & Sajilan, 2017).

7. RESULTS

7.1 Reliability and validity

Tests of reliability and validity were conducted on the scales. Internal consistency reliability was tested through Cronbach alpha. Alpha of .78 was obtained on the EI measure, α = .82 for the caring behavior measure (assurance, α = .88; knowledge and skills, α = .67; respectfulness, α = .76; connectedness, α = .78), and α = .74 for the workload measure. These statistics indicate that the scales, except for the knowledge and skills subscale, were of good reliability, as an alpha of .70 or above is considered satisfactory (Howitt & Cramer, 2011). Content validity was achieved by adopting scales from the literature (Pejic Bach, Aleksic, & Merkac-Skok, 2018). Cronbach alpha statistics also offered support for the convergent validity of the scales (Garson, 2013). The obtained Durbin-Watson test statistics ranged between 1.56 and 1.76, and this is within an acceptable level regarding autocorrelation. The obtained Variance Inflation Factors (VIFs) statistics were all below ten, and the tolerance statistics were all above 0.2; these indicate an absence of collinearity in the data (Field, 2013). Table 1 shows the means, standard deviations, and correlation coefficients on the research variables. The highest mean value was from the knowledge and skill dimension of caring behavior, while the lowest mean value was from the workload. On a 5-point Likert scale, the observed means could be considered high. Of the 25 pairs of relationships examined, only two pairs were not significant ($p > 0.05$). The degree of correlation between the predictor and criterion variables was modest, indicating the absence of

multicollinearity in the model. The analysis also revealed that the relationship between EI and caring behavior was also significant (β = .53, < .05) when gender, age, and marital status were entered as control variables. The three control variables were not significantly related to caring behavior when entered along with EI, gender (β = -.10, > .05), age (β =.02, > .05), and marital status (β =.09, > .05). This result ruled out the influence of the demographic variables on the relationship between EI and caring behavior in healthcare organizations.

Table 1: Mean, standard deviation and correlation matrix on research variables

		x̄	Sd	1	2	3	4	5	6	7
1	EmInt.	4.15	.04	1						
2	WorkL	4.03	.06	.12	1					
3	Caring	4.55	.03	.43**	.27**	1				
4	Assur	4.55	.04	.35**	.33**	.84**	1			
5	Know	4.65	.04	.39**	.19**	.77**	.60**	1		
6	Respect	4.50	.04	.43**	.30**	.82**	.71**	.51**	1	
7	Connect	4.50	.04	.46**	.11	.84**	.59**	.71**	.63**	1

*Note: ** p < .01; EmInt. = Emotional intelligence; WorkL = Workload; Caring = Caring behavior; Assur = Assurance; Know = Knowledge and skill; Respect = Respectful; Connect = Connectedness*

7.2 Hypothesis testing

The hypotheses were tested with regression (Haye, 2013). Regression generally is a parametric test; therefore, assumptions associated with its usage were taken into consideration. For instance, data collected were independent of each other. A Likert scaling format was used to achieve interval scaling. Table 2 shows a regression analysis of the hypotheses tested. The results (first row for each of the five pairs) indicated that EI positively and significantly predicted caring behavior, the assurance dimension of caring behavior, the knowledge and skill dimension of caring behavior, the respectfulness dimension of caring behavior, and the connectedness dimension of caring behavior among participating employees (β = .37, p < 0.05; β = 36, p < .05; β = .37, p < 0.05; β = 42, p < 0.05; β = 48, p < 0.05). Therefore, hypothesis 1 ("a" through "e") was supported. The interaction of EI and workload on caring behavior, the assurance dimension of caring behavior, and the respectfulness dimension of caring behavior in healthcare organizations was negative, but not significant (β = -.05, p > .05; β = -.27, p > .05; β = -.20, p > .05). The interaction of EI and workload on the knowledge and skill dimension of caring behavior, and the connectedness dimension of caring behavior among participating employees was positive, but not significant (β = -.04, p > .05; β = -.21, p > .05). Therefore hypotheses two a, b, and d were partially supported. Hypotheses 2 c and e were not supported.

Table 2: Predictive relationship between emotional intelligence (EI), workload (WL) and their interaction on caring behavior and its dimensions

	B	*SE B*	*t*	*p*
Caring behavior				
EI	.37 [.23, .52]	.07	5.03	< .001
EI x WL	-.05 [-.24, .15]	.10	-.46	> .65
Assurance				
EI	.36 [.20, .52]	.08	4.35	< .001
EI x WL	-.27 [-.49, -.06]	.11	-2.49	< .01
Knowledge and Skills				
EI	.37 [.20, .54]	.09	4.26	< .001
EI x WL	.04 [-.18, .27]	.11	.39	>.70
Respectfulness				
EI	.42 [.27, .58]	.08	5.38	< .001
EI X WL	-.20 [-.41, .01]	.10	-1.90	> .06
Connectedness				
EI	.48 [.30, .67]	.09	5.11	< .001
EI X WL	.21 [-.04, .45]	.13	1.63	> .11

8. DISCUSSION

This study examined the predictive relationship between EI and caring behavior in healthcare organizations, and the moderator effect of workload on the link. Descriptive statistics revealed a high degree of EI, workload, and caring behavior among the participants. The model that EI positively and significantly predicts caring behavior was good, and this offered support for hypothesis 1 ("a" through

"e"). This result is congruent with the extant literature (Beauvais et al., 2010; Charbonnneau & Nicol, 2002; Hidayati et al., 2017; Kaur et al., 2013; Kelley et al., 2013; Kim & Sohn, 2019). Hypothesis 2a, which tested for the moderator effect of workload on the relationship between composite EI and caring behavior, was partially supported as the interaction effect was negative but not significant. Although the result was not statistically significant, that it was "negative" points to the potential usefulness of the model and its contribution to the confirmation of affective event theory. Workload plausibly changed the positive relationship between EI and caring behavior to a negative correlation as high workload is time-consuming, energy-sapping, and frustrating. These features associated with workload have the potential to lower both employees' EI and caring behavior (Leon, & Tanasescu, 2018; Sarafis, Rousaki, Tsounis, et al. 2016; Uslu, & Uslu, 2019).

Two plausible explanations can be offered for the non-significant negative aspect of the interaction effect. First, the sample size adopted in the study has 80% power ($p < 0.05$) when the effect size is medium. The effect sizes observed for the interaction were below a small effect. This statistic indicates that the sample size adopted is implausible to see "significance" even when it does exist. As Dewberry (2004) reported, a sample size of 480 is required to detect a significant prediction when it does exist for a study of two predictors and small effect size. Second, the variance moderator accounts is typically minimal, being the variance that is left over after considering the variations of the independent variables (predictor and moderator variables) (Jex, 2002).

Hypothesis 2b on the moderator effect of workload on the relationship between EI and the assurance dimension of caring behavior was supported as the interaction effect was negative and significant. Hypothesis 2d on the moderator effect of workload on the relationship between EI and the respectfulness dimension of caring behavior was partly supported as the interaction effect was negative, but not significant. A plausible explanation for the findings on these two hypotheses is that the assurance and respectfulness dimensions of caring behavior are characteristics within the control of the individual. Therefore, the workload can moderate their relationship with EI. Hypothesis 2c on the moderator effect of workload on the relationship between EI and the knowledge and skill dimension of caring behavior and hypothesis 2e on the moderator effect of workload on the relationship between EI and the connectedness dimension of caring behavior was not supported as the interaction effects were positive. A plausible explanation for the findings on hypotheses 2c and 2e is that the knowledge and skill and the connectedness dimensions of caring behavior are traits of personality and intelligence which are not easily within the control of the individual and, therefore, it is not open to the workload to moderate their relationship with EI. It could be concluded that in healthcare organizations, EI has a desirable impact on caring behavior. The workload has the potential to change the positive relationship between EI and caring behavior to a negative correlation. Although the cognitive, social learning, and sociocultural theories implicated age, gender, and marital status as control variables, the data analysis did not offer support for this proposal as a non-significant relationship was observed between the three demographic variables and caring behavior. However, results from the study of the control variables is not surprising as it is similar to the extant literature (Harrison, 2019; Liu, Hsu, Hung, Wu, & Pai, 2019).

8.1 Theoretical contribution

The findings of this study have some implications for theory development and confirmation. First, in varied settings, empirical research on EI and caring behavior is growing with consistent findings that a positive relationship exists between the variables (Kaur et al., 2013; Nightingale et al., 2018; Rego et al., 2010; Sunaryo et al., 2017). The finding of the present study is congruent with that of the previous studies, and in doing so, it contributed to the existing body of knowledge that has value for management practices. Second, claims abound on the benefits of EI in caring behavior within healthcare organizations. There is a need for middle-range theory to put the claims in perspective. By its relatively encompassing population, the present study commenced a process that will result in the body of knowledge with potential for middle-range theorizing on EI - caring behavior relationships in healthcare organizations. Third, the sample for each of the studies on EI and caring behavior in healthcare organizations was either from nurses (e.g., Kaur et al., 2013; Nightingale et al., 2018; Rego et al., 2010), and on rare occasion from any of the other professions (e.g., Dugan, Weatherly, Girod, Barber, & Tsue, 2014). In other words, the literature lacked a study with a sample that represents a number of the various healthcare professions. The numerous existing studies offered information about the specific group studied rather than the organization. The sample for the present study included five core healthcare professions, and in the literature, this is a remarkable methodological improvement in sample composition. Fourth, guided by the related studies (Goh, 2017; Syahridhaa et al., 2015) and some aspects of affective event theory, it was proposed in this study that workload would moderate the relationship between El and caring behavior in a negative direction. As expected, the analyzed data fit the model, and by extension, offers support for both the detailed existing results and the affective event

theory. Fifth, on the proposals of sociocultural theory and cognitive social learning theory, some demographics (gender, age, and marital status) were analyzed as control variables in this study. Contrary to expectation, the demographics do not change caring behavior, so the theories were consequently disconfirmed in the tested domain.

The advancement of management sciences relies heavily on the development, confirmation, and disconfirmation of approaches (Edwards, 2010). Finally, as noted in the introduction, previous studies on EI and caring behavior in healthcare organizations were almost entirely on the direct relationship between the two variables, and such studies are grossly limited in what they can detect in any given relationship. The present study has taken the literature further by examining workload as a moderator in the EI - caring behavior link, and this a remarkable methodological contribution to the existing body of knowledge.

8.2 Practical implications

EI, as the existing literature and this study show, is of great value to caring practices. The practical effect of this observation is that the education of healthcare workers should adequately cover EI management and that human resource management practices should make available employees with appropriate levels of EI. Having employees with an adequate level of EI is feasible through recruitment, selection, and training processes. Researchers (such as Dolev & Leshem, 2016; Glar-Corbi, Pozo-Rico, Pertegal-Felices, & Sanchez, 2018) have documented the efficacy and methods of training that enhance emotional intelligence. The interaction of EI and workload changed the positive relationship between EI and caring behavior to a negative correlation. This indicates that high workload has an undesirable influence on the relationship between EI and caring behavior. This observation implies that the workload among employees in healthcare organizations should be appropriately managed to prevent it from weakening the expression of EI that is highly desirable for caring behavior among healthcare professionals.

9. CONCLUSION

EI and caring behavior are two essential characteristics that employees in healthcare organizations need for competent individual and organizational functioning. Several studies have examined how much these features exist and how they are expressed and how the two phenomena relate with each core healthcare professional, particularly nursing. The present research shared that concern and moved further to examine the moderation role of workload in EI and caring behavior relationships. This study confirmed several previous studies that identified the predictive influence of EI on caring behavior and added a finding of the moderating effect of workload on the relationship. These observations lead to the following conclusion: for caring behavior, healthcare organizations need healthcare professionals with a substantial degree of emotional intelligence, and workload for professionals in healthcare organizations should be within their physical and mental capabilities.

9.1 Limitations and suggestions for future research

This study has some flaws which point to directions for future research. The self-report measure was the only tool for data collection. Although some procedural measures to control same- source variance were implemented in the design of this study, some issues such as social desirability bias associated with self-report measures remain. Future studies should include social desirability item-scales to identify and removed respondents with that characteristic. The design of this study was cross-sectional, which does not allow the interpretation of the cause-effect relationship. Future studies should explore field experiments and longitudinal designs to enable causal explanations. The adopted sample size can only see significance if the population effect size is medium. More studies on the moderating role of workload in emotional intelligence-caring behavior relationships should use a sample size that can detect importance if it does exist even when the population effect size is small. Future research should examine other models with caring behavior and how much the models are related. Knowledge from such studies would guide the accumulation and discussion of research findings. The health seekers need care at every contact (e. g. in making payments at the accounts section) within the facility. Therefore, empirical concern for emotional intelligence and caring behavior in healthcare organizations should be extended to non-medical professionals as this would also inform how such groups are managed.

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