

Workplace Spirituality and Pro-Environmental Behavior: The Role of Employee Engagement and Environmental Awareness

Miss Ayesha Latif¹

¹ Hazara University

Received: 10 December 2017 Accepted: 31 December 2017 Published: 15 January 2018

Abstract

- A key challenge facing organizations is how to encourage employees to engage in pro-environmental behaviors. Workplace spirituality has been conceptualized as offering new insights into how individuals experience a deeper level of intrinsic work motivation and engagement. Based on a survey of 349 nurses, we found that workplace spirituality was significantly associated with nurses' pro-environmental behavior and that employee engagement indirectly affects the relationship between workplace spirituality and pro-environmental behavior. The results suggest that environmental awareness moderated the effect of workplace spirituality on pro-environmental behavior of nurses. Managers of nursing services should consider workplace spirituality and its positive influence on nurses' outcomes in order to improve their performance and, subsequently, the healthcare system.

Index terms— Workplace spirituality, employee engagement, pro-environmental behavior, environmental awareness, nurses.

1 I. Introduction

There is growing public concern about the environment and related protection issues that have occurred in recent years (Abdelzaher & Newbury, 2016; Binder & Blankenberg, 2017; Sihvonen & Partanen, 2017; Tang & Lam, 2017). Environmental issues, such as climate changes, ozone depletion, deforestation, depavation of ecosystems and loss of biodiversity, are among the matters that have attracted a lot of attention. As the role of businesses in environmental protection becomes more prominent, companies need to be more responsible toward the environment; companies should adapt their business activities to include environmental protection and appropriate management of natural resources (Wassmer, Paquin, & Sharma, 2014). In today's uncertain world, organizations support their employees to be active and thus enable the organization to progress more effectively. Organizations require personnel who are pioneers and active regardless of their position in the organizational hierarchy.

Corresponding to the awareness that employee engagement in greening organizations is crucial to organizational environmental stewardship and performance, scholars have increasingly studied proenvironmental behavior at work (Andersson et al., 2013).

The concept of pro-environmental behavior is defined as individual behavior that contributes to organizational environmental sustainability (e.g., saving office supplies, separating trash at the source, open communication and information sharing among employees regarding environmental sustainability) that is under the volitional control of employees (Kim et al., 2017). Employee's pro-environmental behavior (PEB) essentially contributes to promote sustainable development (De Groot & Steg, 2010). The participation of nurses to address environmental issues and engage in ecofriendly behaviors is considered as an effective strategy to become environmentally responsible organization and enhance environmental performance (Djellal & Gallouj, 2016; Kangasniemi, Kallio, & Pietilä, 2014).

Hospitals generate substantial environmental impacts (Blass et al., 2017). Although adopting green organizational practices is important, the role of individual employees is equally significant (Lamm et al., 2015);

3 A) WORKPLACE SPIRITUALITY AND EMPLOYEES' PROENVIRONMENTAL BEHAVIORS

implementation will be impossible without their active participation (Jenkin et al., 2011). Notwithstanding the growing attention to PEB, there is a dearth of empirical studies on the factors associated with these behaviors (Lamm et al., 2015). This study is going to explore how workplace spirituality can enhance PEBs among nurses through mediating effect of employee engagement and moderating effect of environmental awareness? One important way that organizations can improve environmental performance is by more effectively engaging their employees. Engagement has emerged as an important organizational behavior variable that contributes significantly to employee productivity and organizational performance (Saks, 2011). While a considerable number of studies have been conducted on employee engagement, much still remains to be learned about its antecedents (Rich, Lepine, & Crawford, 2010; Wollard & Shuck, 2011). This includes the need to better understand the underlying intrinsic motivation basis for employee engagement (Meyer & Gagne, 2008) and how the level of engagement is impacted by work meaningfulness (Hughes & Rog, 2008). Workplace spirituality is a construct of increasing interest to scholars who see it as providing new insights into work meaning (Rosso, Dekas, & Wrzesniewski, 2010), and employee work attitudes (Benefiel, Fry, & Geigle, 2014; Milliman, Gatling, & Bradley-Geist, 2017), including engagement (Saks, 2011).

This study seeks to build on two previous empirical workplace spirituality-engagement studies (Petchsawang & McLean, 2017), by examining three dimensions of workplace spirituality which are conceptually similar to key sources of work meaning as observed in Rosso et al.'s (2010) review of the meaning of work literature. In contrast to prior research, the current study also includes a more recently developed operationalization of engagement by Rich et al. (2010) to avoid potential confounding of this construct with the meaningful work dimension of workplace spirituality. In addition, this is the first investigation to empirically determine the joint effects of workplace spirituality and engagement on employee pro-environmental behavior. In doing so, this study seeks to provide new insights into the antecedents and outcomes of engagement (Wollard & Shuck, 2011; Yeh, 2013) as well as address the need for more empirical research on how workplace spirituality theory can influence organizational behavior variables and performance (Giacalone & Jurkiewicz, 2003). Qu et al. (2015) defined environmental awareness as the concern and the knowledge people have about anthropogenic influences on the environment and climate. Ollmuss and Agyeman (2002, p. 349) argued that "because of the non-immediacy of ecological destruction, emotional involvement requires a certain degree of environmental knowledge and awareness." Notwithstanding the evidences that the workplace spirituality can lead to PEB, according to its definition, workplace spirituality leaves employees with considerable latitude. Thus, the interaction of environmental awareness with workplace spirituality is likely to strengthen this relationship and increase employees' participation in environmentally friendly behaviors (Afsar et al., 2016).

Enabling the expression of human experience at its deepest, most spiritual level may help organizations to achieve greater environmental performance (Laszlo & Zhexembayeva, 2011).

Notwithstanding the abundance of research observing the motivational factors underlying people's participation in PEB in public and private settings (Ozaki, 2011; Steg et al., 2014), there is a gap in the literature regarding employees' engagement in PEB in the workplace (Ruepert et al., 2016; Temminck, Mearns, & Fruhen, 2015). Previous research on this subject suggests that materialistic rewards and penalties are considered the least significant mechanism in encouraging employees to engage in such behaviors (Zibarras & Ballinger, 2011). Thus, there seems to be a lack of a suitable theoretical model to foster employees' involvement in sustainable behaviors on a spiritual level, which is not necessarily motivated by a materialistic framework (Temminck et al., 2015). Since it is known that less tangible motivations are more significant drivers of individuals' PEB in comparison to tangible motivations (Vaske & Kobrin, 2001), it is plausible to focus on employees' PEB through the lens of workplace spirituality. Despite widespread discussions about the role of workplace spirituality in organizational management literature (Afsar et al., 2016), there are hardly any studies in literature that have empirically extended to this significant variable (Gatling et al., 2016). Moreover, spirituality is an under-researched phenomenon in the health-care context (Ebrahimi et al., 2016).

2 II. Theoretical Background and Hypotheses Development

Invoking spirituality at work through promoting the employees' sense of social connection, membership and transcendence motivates them intrinsically to strive for the social good out of concern for future generations (Afsar et al., 2016). Previous studies have found that spirituality is a very strong motivator for people to engage in pro-social and volunteer work (Nash & Stewart, 2002, p. 47), and the stronger the spirituality factor in individuals, the more altruistic and citizenship behavior they exhibit (Kazemipour et al., 2012). Given the non-obligatory nature of PEB, it is vital for organizations to know how to motivate employees to participate in activities that go beyond their normal work duties (Ones & Dilchert, 2012). Scholars believe that the combination of organizational and individual factors influence these behaviors (Paillé & Raineri, 2015).

3 a) Workplace spirituality and employees' proenvironmental behaviors

Research on workplace spirituality has increased significantly in the past two decades (Joelle & Coelho, 2017). As noted by Houghton et al. (2016), a commonly cited definition in the literature is by Ashmos and Duchon (2000) who defined workplace spirituality as "the recognition that employees have an inner life that nourishes

and is nourished by meaningful work that takes place in the context of community" (p. 137). Workplace spirituality shares a commonality with the emerging positive organizational scholarship field in focusing more explicitly on the humanistic aspect of work (Lavine, Bright, Powley, & Cameron, 2014) by seeking to more fully understand the human experience, including the drive for self-actualization (Joelle & Coelho, 2017), self-development, and more complete selfexpression at work (Pawar, 2009). Workplace spirituality is seen as a multifaceted construct influencing an individual's intrinsic motivation (Sharma & Hussain, 2012) and as involving one's "inner consciousness" and search for meaning (Houghton et al., 2016). A key theme of the literature on workplace spirituality is that people desire to not just be competent in their work, but also to have some other kind of personally meaningful experience at work. This type of experience can involve a variety of aspects such as a sense of transcendence, meaningful and purposeful work, a connection to others or to a higher power, the experience of one's "authentic" self, being of service to others or to humanity, and belonging to a good and ethical organization (Milliman et al., 2017).

Benefiel et al. (2014) observed that workplace spirituality is seen as providing new insights into employee work attitudes and that a full understanding of organizational reality is incomplete without considering people's spiritual nature. The employee's experience of spirituality in the workplace is called workplace spirituality (Pawar, 2009). This concept refers to an employee-friendly work setting that cultivates and supports the spirit of the employees (Pandey et al., 2009). A moralistic and spiritual perspective encourages and motivates people to protect and conserve nature (Gatling et al., 2016). Workplace spirituality "is about feeling connected with and having compassion toward others, experiencing a mindful inner consciousness in the pursuit of meaningful work and that enables transcendence" (Petchsawang & Duchon, 2009, p. 461). Workplace spirituality enhances employees' selftranscendence values (Giacalone & Jurkiewicz, 2003) and motivates them to participate in activities that care for environment.

Workplace spirituality develops the sense of unity and connectedness among employees (Gatling et al., 2016). This sense of community motivates employees to demonstrate pro-social behaviors and care for others at work and makes them go beyond their own responsibilities and perform citizenship behavior (Kazempour et al., 2012). Empirical studies have suggested that employees with a high sense of workplace spirituality are bound to exhibit OCB. Nash and Stewart (2002) state that spirituality is a strong motivator and a life-giving energy that spurs individuals to participate in volunteering for social works and acting in the social good for the welfare of others and the community. Many studies have asserted that the activation of concepts related to spirituality positively affects people's pro-social attitudes and behavior. Stead and Stead (2014) believed that sustainability has roots in spirituality. The literature also includes many references that assert the relationship between spirituality and environmentally sustainable behavior. For example, Pandey et al. (2008) explained that workplace spirituality is about finding harmony between one's self, the community and the natural environment. Csutora and Zsóka (2014) found a meaningful correlation between people's spirituality on the one hand and their environmental concerns and the sustainability of their lifestyles on the other. Furthermore, workplace spirituality nourishes the spirits of employees in diverse ways and makes them think about the wellbeing of society and the environment (Wierzbicki & Zawadzka, 2014). Since PEB is voluntary in nature and is considered as a type of organizational citizenship behavior towards the environment (Paillé & Raineri, 2015), and given the positive relationship between workplace spirituality and employee's organizational citizenship behavior towards the environment (Afsar et al., 2016), it is quite plausible to assume the following: H1: Workplace spirituality is positively associated with nurses' pro-environmental behaviors.

4 b) Workplace spirituality and employee engagement

Employee engagement has been subject to a number of definitions. The construct was first defined by Kahn (1990) as involving one's "preferred self" and 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" (p. 694). Engagement has also been viewed by Schaufeli et al. (2002) as involving an individual's full identification with his or her work, encompassing aspects such as (1) vigor (high levels of energy, enthusiasm, and resilience), (2) dedication (in-depth association with one's job involving significance, motivation, and challenge), and (3) absorption (being fully involved with one's work tasks). Engaged employees are seen as providing their full effort toward both their (1) main job tasks and responsibilities and

(2) extra-role behaviors. Engagement is seen as a distinct construct in relation to other organizational behavior variables, in part because it involves one's full self in the experience of work and it impacts the performance of actual work tasks directly, rather than just work attitudes related to performance (Saks, 2011).

Meyer and Gagne (2008) called for more research to identify and explain the underlying human intrinsic motivation needs that lead to higher levels of engagement. Similarly, other researchers contend that greater attention should be given to the study of how employee engagement is influenced by the fulfillment of an individual's inner needs and through the experience of work meaning (Jung & Yoon, 2016). Similarly, other scholars contend that the pursuit of a spiritual experience at work leads individuals to seek their full potential and experience a greater sense of intrinsic motivation (Osman-Gani, Junaidah, & Ismail, 2013) and self-fulfillment (Pawar, 2009), which lead to increased engagement. Afsar (2016) the group level -involving community or a sense of belonging to others at work, and (3) the organizational level encompassing an employee's perceived fit between his or her personal values with those of the organization's values (including social and ethical aspects).

As noted in Benefiel et al.'s (2014) literature review, two or more of these dimensions have been examined in a number of workplace spirituality studies. These three workplace spirituality dimensions are conceptually similar to Rosso et al.'s (2010) observation that key sources of work meaning include a sense of community and group (involving a sense of shared identity and opportunities to contribute value to others), and the work context (including one's attitude toward his/her job tasks and organization's mission and values). As such, the workplace spirituality dimensions of meaningful work, community, and alignment of organizational values can be seen as one way that individuals experience intrinsic work meaning and in turn increase their level of engagement. Sharma and Hussain (2012) found a positive relationship between a combined report of these three workplace spirituality dimensions and the vigor dimension of engagement as measured by the Utrecht Work Engagement Scale (UWES) instrument (Schaufeli et al., 2002). A more recent study by Petchsawang and McLean (2017) found that four dimensions of workplace spirituality (meaningful work, compassion, transcendence and mindfulness) operationalized as a single higher order construct, was positively related to employee engagement as measured by the UWES instrument. While the Petchsawang and McLean (2017) and Sharma and Hussain (2012) studies provide important insights into the relationship of workplace spirituality to engagement, we observe some limitations in them. First, as noted by Rich et al. (2010), the UWES instrument includes some survey items related to job challenge and meaningfulness that can confound engagement with work meaningfulness. This is a concern since both the Sharma and Hussain's (2012) and the Petchsawang and McLean (2017) investigations used the UWES survey in conjunction with the workplace spirituality dimension of meaningful work. Second, Sharma and Hussain's (2012) study had a relatively small sample size (60 managers) and its analysis involved only zero-order correlations. Third, the Petchsawang and McLean (2017) study involved only one dimension in common (meaningful work) with that of Sharma and Hussain (2012) and our study. We seek to build on these two investigations in two ways. One, to more fully examine the relationship of engagement to three dimensions of workplace spirituality (meaningful work, sense of community, and alignment with organizational values) which can be seen as being conceptually similar to key sources of work meaning as indicated by Rosso et al. (2010). Two, we seek to avoid the confounding of engagement with meaningful work by examining how these three workplace spirituality dimensions are positively related to Rich et al.'s (2010) operationalization of engagement which is based on Kahn's (1990) original definition of engagement (e.g. its cognitive, physical, and emotional elements).

Organizational commitment has been found to enhance employee's engagement in organizational citizenship behaviors directed towards protecting the environment (Daily et al., 2009; Mesmer-Magnus et al., 2012). Drawing on findings from a multinational corporation's case study, Biga et al. (2012) argued that employees who are more engaged are more likely to display direct pro-environmental behaviors on the job. These behaviors include working sustainably or exhibiting conserving behaviors (p. 371). Employee engagement is highly correlated with meaningful work, sense of "calling", humanism, and loyalty (Milliman, Gatling, & Kim, 2018). These antecedents are also components of the workplace spirituality. This suggests that workplace spirituality may lead to increased employee engagement. That is, those who feel their jobs as meaningful, purposeful, connecting with coworkers and other people associated with work, and find better alignment of one's core beliefs and the values of their organization may be more likely to reciprocate with increased employee engagement. Fry (2003) notes that workplace spirituality aspects cannot be overlooked by future organizations. Injerski & Skrypnik (2006) Through the sense of calling, workplace spirituality instills a sense of meaningfulness to one's work with the organization and should foster employee engagement. This relationship can be explained by the fact that jobs providing a sense of meaning make people feel they work in an environment that conveys values compatible with their own. It is widely documented that the sense of belonging to a collective is positively associated with employee engagement (Milliman, Gatling, & Kim, 2018). Since organizational attitudes have been consistently linked to OCBs (Podsakoff et al., 2000; Tepper and Taylor, 2003), it follows that employee engagement may be a potential mediator of the relation between the workplace spirituality and each facet of OCB. Past research has also revealed a substantial relation between employee engagement and OCB in a variety of different empirical studies and workplace contexts (Milliman, Gatling, & Kim, 2018). As argued earlier that PEBs are OCBs directed towards the environment, the greater the level of workplace spirituality, the higher the employee engagement, and the greater the likelihood of PEB. Thus we may hypothesize: H2: There is a positive relationship between workplace spirituality and employee engagement. H3: Employee engagement is positively related to proenvironmental behaviors. H4: Employee engagement mediates the relationship between workplace spirituality and pro-environmental behaviors.

5 c) Moderation by environmental awareness

The socio-psychological model of Stern et al. (1993), which is originally based on Schwartz's (1977) norm activation model, asserts the assumption that for individuals to exhibit altruistic behavior, it is essential that they have awareness about the results of performing or not performing a behavior in terms of social harm. Individuals' knowledge on environmental and sustainability concerns is essential (Fryxell & Lo, 2003). Environmental knowledge signifies the method of situating environmental conditions in a sustainable balance through economic and social developments (Jamison, 2003). Previous studies have determined different factors affecting pro-environmental behavior. Kaplan (1991), for instance, indicated that awareness affects an individual's decision-making significantly. Commonly, people tend to keep themselves away from the situations which they do not

know much about. Amyx et al. (1994) (2014) pointed out that people's environmental awareness could enhance their green behavior. For example, individuals with higher environmental awareness purchase goods with ecofriendly labels, consume organic fruits and participate in recycling activities. Some people, after knowing the serious impacts of chlorine fluoride on the ozone layer, do not use hair sprays anymore. Another study also proved that awareness of the outcomes of recycling programs plays a significant role in a personnel's green behavior (Tudor et al., 2008). When employees are knowledgeable and well aware of the ecological degradation environmental issues and the importance of eco-friendly practices, they are more likely to actually show green behaviors (Afsar et al., 2016). Retrospective studies have asserted the significant role of environmental awareness in individuals' PEB and green consumption (Kim & Han, 2010; Yan & Spash, 2008). Afsar et al. (2016) proved that the interaction of individuals' sense of responsibility and concern about the results of their activities (i.e., environmental awareness) with their sense of community membership and meaningfulness in life (i.e., workplace spirituality) can activate their moral obligation and result in PEB. Moreover, numerous studies have indicated that when employees are aware of environmental problems, they are more likely to exhibit eco-friendly behaviors (Crossman, 2011; Tilahy, 2004). Therefore, we hypothesize the following: H5: Environmental awareness strengthens the relationship between workplace spirituality and PEB.

6 III. Methodology a) Sample and data collection

The targeted population was composed of all registered nurses who worked at nine public and general hospitals located in different cities of Pakistan, numbering around 2960 nurses. Prior permission was granted from the hospital management to conduct this study. In total, 17 hospitals were contacted but only nine agreed to participate in this study. The number of beds ranged from 200 to 800. A total of 700 responses questionnaires were distributed among nurses, out of which 365 were returned, out of which 16 were unusable. Consequently, 349 questionnaires were used for further analysis, a response rate of 49.8%. The demographic information of the respondents indicates that the sample was 88.4% female and that 40.2% of respondents were between 30 and 39 years of age. Almost 24% of the respondents' nursing experience ranged from 1 to 5 years, and about 32% of nurses had one to three previous nursing positions before working in these hospitals.

7 b) Measures

Workplace spirituality was measured with 12 items selected from the meaningful work and alignment with the organization's values survey scales of Ashmos and Duchon (2000) and the sense of community scale from Milliman et al. (2003). Employee engagement was operationalized through 12 items selected from Rich et al. (2010). The pro-environmental behavior scale developed by Robertson and Barling (2013) was used for this study. Sample items include "I print double sided whenever possible" and "I take part in environmentally friendly programs". EA was measured by four items from Ryan et al. (2008). A sample item from the scale was the following: "The effects of pollution on public health are worse than we realize". All constructs were measured on a five-point Likert scale.

8 c) Results

Prior to testing the hypothesized structural model of this study, a measurement model was assessed using confirmatory factor analysis (CFA) involving the eight constructs (i.e. meaningful work, sense of community, alignment with organizational value, physical engagement, emotional engagement cognitive engagement, environmental awareness, and pro-environmental behavior) (Anderson & Gerbing, 1988). The initial measurement model provided a good fit to the data: $\chi^2(588) = 1584.38$, $p < .05$, $\chi^2/df = 2.69$, CFI = .924, IFI = .924, TLI = .918, RMSEA = .071. These statistics met the standards considered necessary of a good fit for the Comparative Fit Index (CFI), Tucker-Lewis index (TLI), and Incremental Fit Index (IFI) with their values of .90 or higher, Root Mean Square Error of Approximation (RMSEA) value of .08 or less, and χ^2/df value of 3 or less (Anderson & Gerbing, 1988; Byrne, 2006; Hair, Black, Babin, Anderson, & Tatham, 2006).

This study used the three first-order workplace spirituality factors to create a higher-order (i.e., second-order) workplace spirituality factor and three first-order engagement factors to create a higher-order engagement factor. This second-order factor analysis was employed to create a more parsimonious and interpretable model with fewer parameters, as recommended by Gustafsson and Balke (1993) and Jöreskog and Sörbom (1988). This approach is also consistent with previous studies on workplace spirituality (Crawford, Hubbard, Lonis Shumate, & O'Neill, 2008; Gatling, Kim, & Milliman, 2016) and engagement (Rich et al., 2010). The second-order measurement model showed a good fit: $\chi^2(467) = 1213.67$, $p < .05$, $\chi^2/df = 2.59$, CFI = .947, IFI = .947, TLI = .935, RMSEA = .067. The results of the second-order factor analysis indicate that significant positive relationships between first- and second-order factors exist in both workplace spirituality Employee Engagement Pro-Environmental Behavior Workplace Spirituality Environmental Awareness 48 and employee engagement, as evidenced by high standardized factor loadings as follows for (1) workplace spirituality: meaningful work (MW), .93; sense of community (SC), .85; and alignment with organizational values (AOV), .86 and for (2) employee engagement: physical engagement (PE), .89; emotional engagement (EE), .84; and cognitive engagement (CE), .86 ($p < .05$). These results support that these first-order factors accurately represent the underlying concepts of workplace spirituality and employee

8 C) RESULTS

engagement. That is, nurses tend to view (1) workplace spirituality as a combination of MW, SC, and AOV and (2) employee engagement as a combination of PE, EE, and CE.

The Cronbach's alphas of the four construct ranged from 0.86 to 0.91, which shows that the measures are internally consistent with the recommended criterion of 0.70. Convergent validity was evaluated by observing the Composite Reliability (CR) and Average Variance Extracted (AVE). Composite reliability values for all four constructs ranged from 0.81 to 0.88, which is greater than the minimum threshold value of 0.70 and AVE values ranged from 0.66 to 0.76, exceeding the acceptable value of 0.50. Next, discriminant validity was assessed by determining whether the square root of every AVE value belonging to each construct is much larger than any correlation among any pair of latent constructs (Fornell et al., 1981). The results showed that the square root of AVE belonging to WPS (0.76), EE (0.73), EA (0.66) and PEB (0.72) were greater than the correlation among any pair of constructs.

The means, standard deviations, and intercorrelations among research variables have been presented in Table 1. WPS correlated significantly with education ($r = .12, p < .001$), EE ($r = .28, p < .001$), EA ($r = .34, p < .01$), and PEB ($r = .44, p < .001$). Hypothesis H1 and H2 proposed that WPS will positively related to employees' PEB and EE respectively. As shown in Table 1, there is a significant positive relationship between WPS and PEB ($r = 0.44, p < .001$), and also EE ($r = .28, p < .001$), thus supporting the H1 and H2. H3 proposed that employee's EE is positively related to their PEB. The result shows that there is a significant positive relationship between EE and PEB ($r = 0.29, p < .001$), thus supporting H3. The findings regarding the indirect effect of WPS on PEB via EE is summarized in Table 2. As mentioned before, H2 proposed EE as a partial mediator of the impact of WPS on PEB. Following Baron and Kenney (1986) model, in the analysis predicting EE, age, tenure and education entered in step 1 and WPS in step 2. For predicting PEB, age entered in step 1, WPS in step 2 and EE in step 3. The results showed that when EE ($\beta = 0.21, p < .001$) was entered in the analysis, the magnitude of the WPS impact ($\beta = 0.46, p < .05$) on PEB decreased but, remained significant. Thus the findings showed that EE partially mediated the impact of WPS on PEB, supporting hypothesis 4. Table 3 shows the results of multiple moderated regression analysis to test H5, which proposed the interactive impacts of WPS and environmental awareness (EA) on PEB. Once again following Baron and Kenney (1986) model, first control variable was entered into the analysis; in the second step WPS was entered along with the EA to predict PEB. Then in step 3, the interaction terms of WPS and EA were entered. The results in Table 3 show the positive relations of WPS ($\beta = 0.43, p < .01$), EA ($\beta = 0.28, p < .001$), with PEB.

The analysis show that the joint effects of WPS $\times$ EA ($\beta = 0.12, p < .001$) on PEB is significant, suggesting that EA increase the positive impact of WPS on PEB. In addition, the researches plotted the WPS $\times$ EA interactions at two levels of EA (e.g., +1 SD, -1 SD; Bauer et al., 2005) and conducted a simple slope test to test the nature of the interaction. The result shows that EA augments the positive impact of WPS on PEB. Therefore H5 was supported. This study examined the effects of workplace spirituality on employees' PEB and the indirect effect of EE on the relationship between workplace spirituality and PEB. The results of the study indicated that workplace spirituality was positively correlated with greater engagement in PEB. The findings also supported the mediating and indirect effect of EE on the relationship between workplace spirituality and PEB. That is, nurses who reported the experience of higher spirituality at work exhibited more engagement in PEB in the hospitals. (2010). As a result, the current study contributes to the literature in establishing how multiple aspects of workplace spirituality can influence engagement through the lens of work meaning. Specifically, the employees who display greater levels of employee engagement try to protect the environment through sustainable behavior. However, the buffering role of environmental awareness in the relationship between workplace spirituality and employees' PEB should be taken into account as well.

The proposed framework is the first concerted engagement of spirituality and environmental issues in healthcare setting. This discourse can make tangible contributions to sustainability in hospitals. As spirituality is a universal phenomenon and engages every individual regardless of his or her religion or nationality, the adoption of strategies to disseminate spirituality throughout workplaces will be a game changer (Afsar et al., 2016). However, as Faro Albuquerque et al. (2014) pointed out, epistemologically emotional and spiritual discourses have been marginalized in healthcare research.

While this study, to the best of our knowledge, is the first to test and report this specific pathway, the data pattern fits well within theoretical accounts of how workplace spirituality and EE might influence employee participation in sustainable behavior at work. We suggest that spirituality in the workplace can be a catalyst for organizations to achieve the ever-growing global demand for greening organizations. Developing spirituality in the workplace enables individuals to expand their consciousness to see the world free of constraints and to enrich their human relationships (Howard, 2002). Burkhardt (1989) stated that spirituality brings meaning in life and allows one to transcend beyond the present context. A sense of transcendence is a powerful reason for employees to consider future generations, which is in line with the notion of sustainability, or the belief that humans share a common future and should consider the benefits of future generations.

Lee et al. (2014) stated that workplace spirituality can be facilitated through respect, humanism and integrity within organizations. Thus, treating nurses accordingly can provide a spiritual climate in the workplace that motivates employees to aim toward selftranscendence, to go beyond their own selves and their own tasks, to care for the environment and align themselves with the organization's values. The current study proposes a number of practical implications. A first step that managers can take to promote a sense of workplace spirituality is to

determine what aspects of work are most personally meaningful to their employees. As recommended by May, Gilson, and Harter (2004), managers can then attempt to fit employees to job roles that enable them to more fully express themselves, thereby leading to higher work meaningfulness and engagement. Such selfexpression can also be enhanced by creating opportunities for employees to provide more input on how to improve their work unit area and its greening strategies. This process of enhancing worker involvement and self-expression can also be extended to organizational level activities. For example, hospitals can communicate more clearly what organizational volunteering and greening opportunities are available and assist nurses in selecting initiatives that best match their particular interests. As suggested by Pratt and Ashforth (2003), such a process can promote a greater sense of community by creating deeper interpersonal connections among employees and between employees and their community. As the sustainable behavior of the employees at work is discretionary, workplace spirituality found to be a strong predictor tool through which the managers can indirectly provoke their employees to participate in such activities. However with regard to the impact of workplace spirituality on the employees' environmental behavior, the role of environmental awareness should not be underestimated. Providing employees with suitable environmental training is crucial to cultivate their awareness and knowledge and enhance their engagement in environmental behaviors (Bansal & Roth, 2000; Chan et al., 2014).

9 a) Limitations and future research

The findings of the present research should be interpreted in the context of its limitations. Since contextual effects and cultural differences may affect individuals' attitudes and behavior towards environmental issues (Müller et al., 2009) the findings of this study should be treated more cautiously, and future studies may replicate the proposed model in other settings. Cross-sectional nature of this study is another limitation. Workplace spirituality was operationalized in this study with three dimensions involving meaningful work, community, and alignment with organizational values that are consistent with variables found to be key sources of work meaning. Scholars should consider examining these three dimensions in conjunction with additional aspects of workplace spirituality from recent research by Petchsawang and McLean (2017) (e.g. such as transcendence among others) and Joelle and Coelho (2017) (emotional balance and inner peace) to provide additional insights into how workplace spirituality can influence employee engagement.¹

Figure 1:

Figure 2:

¹© 2018 Global Journals ()

9 A) LIMITATIONS AND FUTURE RESEARCH

1

Variables	M (SD)	?	1	2	3	4	5	6	7	8
1 Age	33.28 (4.38)		1							
2 Gender	.87 (.15)		-.02	1						
3 Tenure	6.48(3.92)		.35*	-	1					
				.11**						
4 Education	14.68(2.19)		.03	-	.04	1				
				.14***						
5 WPS	3.79(.56)	.86	-.04	.07	.14*	.12***	1			
6 EE	3.84(.47)	.89	.11	-.08	.03	.05	.28***	1		
7 EA	3.57(.31)	.91	.08*	.09*	.02	-	.34**	.17***	1	
						.03				
8 PEB	4.12(.26)	.87	.18**	.04	.13**	.19**	.44***	.29***	.32***	1

Note: WPS for workplace spirituality; EE for employee engagement; EA for environmental awareness; PEB behavior; * $p < .05$, ** $p < .01$, *** $p < .001$ (2-tailed test).

Figure 3: Table 1 :

2

Variables	EE		PEB			
	?	t	?	t	?	t
Step 1						
Age	-.04	-.15	-.06	-.32	.06	1.01
Education	.15**	3.32	.11**	3.01	.11**	2.62
Tenure	.12*	1.94	.12*	1.92	.07	1.19
Step 2						
WPS			.23***	3.78	.48**	8.99
Step 3						
EE						
F		6.97*		6.58**		6.88*
R ² at each step		.06		.08		.06
?R ²				.02		.15

[Note: Note: * $P < .05$, ** $P < .01$, *** $P < .001$ (2tailed test)]

Figure 4: Table 2 :

3

Variables			PEB				
Step 1	?	t	?	t	?	t	
Age	.05	1.27	.03	.74	.04	.82	
Education	.11*	2.46	.06	1.18	.04	.93	
Tenure	.08	1.25	.08	1.14	.07	1.13	
Step 2							
WPS			.43**	7.91	.04	4.16	
EA			.28***	4.27	.32	1.68	
Step 3							
WPS * EA					.69***	3.95	
F		7.86**		21.84*		18.29*	
R ² at each step		.07		.24		.28	
?R ²				.17		.04	

Note:* p<.05, **p<.01, ***p<.001 (2-tailed test)

Figure 5: Table 3 :

[Springer Japan] , Springer Japan .

[Chalofsky and Krishna ()] , N Chalofsky , V Krishna . 2009.

[Daily et al. ()] ‘A conceptual model for organizational citizenship behavior directed toward the environment’. B F Daily , J W Bishop , N Govindarajulu . *Business & Society* 2009. 48 (2) p. .

[Meyer and Allen ()] ‘A threecomponent conceptualization of organizational commitment’. J P Meyer , N J Allen . *Human resource management review* 1991. 1 (1) p. .

[Vandenberghe et al. ()] ‘Affective commitment to the organization, supervisor, and work group: Antecedents and outcomes’. C Vandenberghe , K Bentein , F Stinglhamber . *Journal of vocational behavior* 2004. 64 (1) p. .

[Steg et al. ()] ‘An integrated framework for encouraging pro-environmental behaviour: The role of values, situational factors and goals’. L Steg , J W Bolderdijk , K Keizer , G Perlaviciute . *Journal of Environmental Psychology* 2014. 38 p. .

[Stead and Stead ()] ‘Building spiritual capabilities to sustain sustainability-based competitive advantages’. J G Stead , W E Stead . *Journal of Management, Spirituality & Religion* 2014. 11 (2) p. .

[Abdelzaher and Newburry ()] ‘Do green policies build green reputations?’. D Abdelzaher , W Newburry . *Journal of Global Responsibility* 2016. 7 (2) p. .

[Sihvonen and Partanen ()] ‘Eco-design practices with a focus on quantitative environmental targets: An exploratory content analysis within ICT sector’. S Sihvonen , J Partanen . *Journal of cleaner production* 2017. 143 p. .

[Laszlo and Zhexembayeva ()] ‘Embedded sustainability: A strategy for market leaders’. C Laszlo , N Zhexembayeva . *The European Financial Review* 2011. 15 p. .

[Meyer and Gagne ()] ‘Employee engagement from a self-determination theory perspective’. J P Meyer , M Gagne . *Industrial and Organizational Psychology* 2008. 1 (1) p. .

[Lamm et al. ()] ‘Empowering employee sustainability: Perceived organizational support toward the environment’. E Lamm , J Tosti-Kharas , C E King . *Journal of Business Ethics* 2015. 128 (1) p. .

[Ruepert et al. ()] ‘Environmental considerations in the organizational context: A pathway to proenvironmental behaviour at work’. A Ruepert , K Keizer , L Steg , F Maricchiolo , G Carrus , A Dumitru , R G Mira , A Stancu , D Moza . *Energy Research & Social Science* 2016. 17 p. .

[Ones and Dilchert ()] ‘Environmental sustainability at work: A call to action’. D S Ones , S Dilchert . *Industrial and Organizational Psychology* 2012. 5 (4) p. .

[Osman-Gani et al. ()] ‘Establishing linkages between religiosity and spirituality on employee performance’. A M Osman-Gani , J Hashim , Y Ismail . *Employee relations* 2013. 35 (4) p. .

[Ozaki and Sevastyanova ()] ‘Going hybrid: An analysis of consumer purchase motivations’. R Ozaki , K Sevastyanova . *Energy Policy* 2011. 39 (5) p. .

[Jenkin et al. ()] ‘Green information technologies and systems: Employees’ perceptions of organizational practices’. T A Jenkin , L Mc Shane , J Webster . *Business & Society* 2011. 50 (2) p. .

[Binder and Blankenberg ()] ‘Green lifestyles and subjective well-being: More about selfimage than actual behavior’. M Binder , A K Blankenberg . *Journal of Economic Behavior & Organization* 2017. 137 p. .

[Mesmer-Magnus et al. ()] ‘humor in the workplace’. J Mesmer-Magnus , D J Glew , C Viswesvaran . *Journal of Managerial Psychology* 2012. 27 (2) p. .

[Paço ()] ‘Innovation in Public Health Care Institutions: The Case of Green Hospitals’. A Paço . *Handbook of Research on Global Competitive Advantage through Innovation and Entrepreneurship*, 2015. IGI Global. p. .

[Paillé and Raineri ()] ‘Linking perceived corporate environmental policies and employees eco-initiatives: The influence of perceived organizational support and psychological contract breach’. P Paillé , N Raineri . *Journal of Business Research* 2015. 68 (11) p. .

[Afsar et al. ()] ‘Linking spiritual leadership and employee proenvironmental behavior: The influence of workplace spirituality, intrinsic motivation, and environmental passion’. B Afsar , Y Badir , U S Kiani . *Journal of Environmental Psychology* 2016. 45 p. .

[Fry and Nisiewicz ()] *Maximizing the triple bottom line through spiritual leadership*, L Fry , M Nisiewicz . 2013. Stanford University Press.

[Csutora and Zsóka ()] ‘May spirituality lead to reduced ecological footprint? Conceptual framework and empirical analysis’. M Csutora , Á Zsóka . *Management and Sustainable Development* 2014. 10 (1) p. . (World Review of Entrepreneurship)

[Ahmed et al. ()] ‘Meaningful work and work engagement: A relationship demanding urgent attention’. U Ahmed , A H A Majid , M L M Zin . *International Journal of Academic Research in Business and Social Sciences* 2016. 6 (8) p. .

9 A) LIMITATIONS AND FUTURE RESEARCH

- [Chalofsky and Krishna ()] ‘Meaningfulness, commitment, and engagement: The intersection of a deeper level of intrinsic motivation’. N Chalofsky , V Krishna . *Advances in Developing Human Resources*, 2009. 11 p. .
- [Blass et al. ()] ‘Measuring environmental performance in hospitals: A practical approach’. A P Blass , S E G Da Costa , E P De Lima , L A Borges . *Journal of Cleaner Production* 2017. 142 p. .
- [Petchsawang and Duchon ()] ‘Measuring workplace spirituality in an Asian context’. P Petchsawang , D Duchon . *Human resource development international* 2009. 12 (4) p. .
- [Kollmuss and Agyeman ()] *Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior?* Environmental education research, A Kollmuss , J Agyeman . 2002. 8 p. .
- [Temminck et al. ()] ‘Motivating employees towards sustainable behaviour’. E Temminck , K Mearns , L Fruhen . *Business Strategy and the Environment* 2015. 24 (6) p. .
- [Bolon ()] ‘Organizational citizenship behavior among hospital employees: A multidimensional analysis involving job satisfaction and organizational commitment’. D S Bolon . *Journal of Healthcare Management* 1997. 42 (2) p. 221.
- [Vaske and Kobrin ()] ‘Place attachment and behavior’. J J Vaske , K C Kobrin . *The Journal of Environmental Education* 2001. 32 (4) p. .
- [Zibarras and Ballinger ()] *Promoting environmental behaviour in the workplace: A survey of UK organisations. Going green: The psychology of sustainability in the workplace*, L Zibarras , C Ballinger . 2011. p. .
- [Shuck and Rose ()] ‘Reframing employee engagement within the context of meaning and purpose: Implications for HRD’. B Shuck , K Rose . *Advances in Developing Human Resources*, 2013. 15 p. .
- [Ebrahimi et al. ()] ‘Relationship between Nurses’ Spiritual Well-being and Nurses’ perception of competence in providing spiritual care for patients’. H Ebrahimi , M A Jafarabadi , H N Arshetnab , S G Khanmiri . *Medical Science and Discovery* 2016. 3 (2) p. .
- [Kazemipour et al. ()] ‘Relationship between workplace spirituality and organizational citizenship behavior among nurses through mediation of employee engagement’. F Kazemipour , S Mohamad Amin , B Pourseidi . *Journal of Nursing Scholarship* 2012. 44 (3) p. .
- [De Groot and Steg ()] ‘Relationships between value orientations, self-determined motivational types and pro-environmental behavioural intentions’. J I De Groot , L Steg . *Journal of Environmental Psychology* 2010. 30 (4) p. .
- [Giacalone and Jurkiewicz ()] ‘Right from wrong: The influence of spirituality on perceptions of unethical business activities’. R A Giacalone , C L Jurkiewicz . *Journal of business Ethics* 2003. 46 (1) p. .
- [Djellal and Gallouj ()] ‘Service innovation for sustainability: paths for greening through service innovation’. F Djellal , F Gallouj . *Service Innovation*, 2016. p. .
- [Meyer et al. ()] ‘Social identities and commitments at work: Toward an integrative model’. J P Meyer , T E Becker , R Van Dick . *Journal of organizational behavior* 2006. 27 (5) p. .
- [Pandey et al. ()] ‘Spiritual climate of business organizations and its impact on customers’ experience’. A Pandey , R K Gupta , A P Arora . *Journal of business ethics* 2009. 88 (2) p. .
- [Clark et al. ()] ‘Spirituality and job satisfaction among hospice interdisciplinary team members’. L Clark , S Leedy , L Mc Donald , B Muller , C Lamb , T Mendez , S Kim , R Schonwetter . *Journal of palliative medicine* 2007. 10 (6) p. .
- [Nash and Stewart ()] *Spirituality and social care: Contributing to personal and community well-being*, M Nash , B Stewart . 2002. Jessica Kingsley Publishers.
- [Ameer and Othman ()] ‘Sustainability practices and corporate financial performance: A study based on the top global corporations’. R Ameer , R Othman . *Journal of Business Ethics* 2012. 108 (1) p. .
- [Qu et al. ()] ‘Sustainable development of eco-industrial parks in China: effects of managers’ environmental awareness on the relationships between practice and performance’. Y Qu , Y Liu , R R Nayak , M Li . *Journal of Cleaner Production* 2015. 87 p. .
- [Kim et al. ()] ‘The determinants of hospitality employees’ pro-environmental behaviors: The moderating role of generational differences’. S H Kim , M Kim , H S Han , S Holland . *International Journal of Hospitality Management* 2016. 52 p. .
- [Milliman et al. ()] ‘The effect of workplace spirituality on hospitality employee engagement, intention to stay, and service delivery’. J Milliman , A Gatling , J S Kim . *Journal of Hospitality and Tourism Management* 2018. 35 p. .
- [Wierzbicki and Zawadzka ()] ‘The Effects of the Activation of Money and Credit Card vs. that of Activation of Spirituality-Which One Prompts Pro-Social Behaviours?’. J Wierzbicki , A M Zawadzka . *Current Psychology* 2016. 35 (3) p. .

-
- 487 [Wassmer et al. ()] ‘The engagement of firms in environmental collaborations: Existing contributions and future
488 directions’. U Wassmer , R Paquin , S Sharma . *Business & Society* 2014. 53 (6) p. .
- 489 [Meaningfulness and Engagement] ‘The intersection of a deeper level of intrinsic motivation’. Commitment
490 Meaningfulness , Engagement . *Advances in Developing Human Resources*, 11 p. .
- 491 [Cartwright and Holmes ()] ‘The meaning of work: The challenge of regaining employee engagement and reducing
492 cynicism’. S Cartwright , N Holmes . *Human Resource Management Review* 2006. 16 (2) p. .
- 493 [Schaufeli et al. ()] ‘The measurement of engagement and burnout: A two sample confirmatory factor analytic
494 approach’. W B Schaufeli , M Salanova , V González-Romá , A B Bakker . *Journal of Happiness studies* 2002.
495 3 (1) p. .
- 496 [Kinjerski and Skrypnik ()] ‘The Promise of Spirit at Work Increasing Job Satisfaction and Organizational
497 Commitment and Reducing Turnover and Absenteeism in Long-Term Care’. V Kinjerski , B J Skrypnik
498 . *Journal of gerontological nursing* 2008. 34 (10) p. .
- 499 [Gatling et al. ()] ‘The relationship between workplace spirituality and hospitality supervisors’ work attitudes:
500 A self-determination theory perspective’. A Gatling , A Gatling , J Kim , J Kim , J Milliman , J Milliman .
501 *International Journal of Contemporary Hospitality Management* 2016. 28 (3) p. .
- 502 [Tang and Lam ()] ‘The role of extraversion and agreeableness traits on Gen Y’s attitudes and willingness to
503 pay for green hotels’. C M F Tang , D Lam . *International Journal of Contemporary Hospitality Management*
504 2017. 29 (1) p. .
- 505 [Gavin and Mason ()] ‘The Virtuous Organization: The Value of Happiness in the Workplace’. J H Gavin , R O
506 Mason . *Organizational Dynamics* 2004. 33 (4) p. .
- 507 [Kangasniemi et al. ()] ‘Towards environmentally responsible nursing: a critical interpretive synthesis’. M
508 Kangasniemi , H Kallio , A M Pietilä . *Journal of advanced nursing* 2014. 70 (7) p. .
- 509 [Jung and Yoon ()] ‘What does work meaning to hospitality employees? The effects of meaningful work on
510 employees’ organizational commitment: The mediating role of job engagement’. H S Jung , H H Yoon .
511 *International Journal of Hospitality Management* 2016. 53 p. .
- 512 [Chan et al. ()] ‘What drives employees’ intentions to implement green practices in hotels? The role of knowledge,
513 awareness, concern and ecological behaviour’. E S Chan , A H Hon , W Chan , F Okumus . *International*
514 *Journal of Hospitality Management* 2014. 40 p. .
- 515 [Kuvaas ()] ‘Work performance, affective commitment, and work motivation: The roles of pay administration
516 and pay level’. B Kuvaas . *Journal of Organizational Behavior* 2006. 27 (3) p. .
- 517 [Saks ()] *Workplace spirituality and employee engagement*, A M Saks . 2011. 8 p. . (Journal of management,
518 spirituality & religion)
- 519 [Rego and Pina E Cunha ()] ‘Workplace spirituality and organizational commitment: an empirical study’. A
520 Rego , M Pina E Cunha . *Journal of organizational change management* 2008. 21 (1) p. .
- 521 [Pawar ()] ‘Workplace spirituality facilitation: A comprehensive model’. B S Pawar . *Journal of business ethics*
522 2009. 90 (3) p. .
- 523 [Petchsawang and Mclean ()] ‘Workplace spirituality, mindfulness meditation, and work engagement’. P Petch-
524 sawang , G N Mclean . *Journal of Management, Spirituality & Religion* 2017. 14 (3) p. .