#### **ORIGINAL PAPER**



# Spiritual Coping with Stress Among Emergency and Critical Care Nurses: A Cross-Sectional Study

Muhamad Adib Ibrahim<sup>1</sup> · Karmila Qarima Isa<sup>1</sup> · Hjh-Azizah Haji-Idris<sup>2</sup> · Siti-Hawa Nawi<sup>2</sup> · Yan Choo Teo<sup>1</sup> · Hanif Abdul Rahman<sup>1</sup> · Khadizah H. Abdul-Mumin<sup>1</sup>

Received: 24 April 2018 / Accepted: 28 September 2019 / Published online: 3 October 2019 © Springer Science+Business Media, LLC, part of Springer Nature 2019

#### Abstract

A cross-sectional study using Spiritual Coping Questionnaire (SCQ) to explore the spiritual stress coping among Muslim Emergency and Critical Care nurses. 113 Participants were recruited. SCQ demonstrated good validation estimates. Positive religious behavior was the main spiritual coping with job stress. Likewise, spiritual coping was highly perceived as religious. Critical care nurses reported significantly higher positive social coping. Nurses with longer work experiences were significantly better in positive spiritual coping. Spiritual coping practices are highly prevalent in healthcare settings despite still lacking integration of spiritual components in its physical infrastructure, health policy and management.

Keywords Spirituality · Muslim · Stress coping · Emergency nursing · Critical Care nursing

# Introduction

One of the lasting means of coping with stress that had been practiced in various countries worldwide is spiritual coping. Spiritual coping is inherent in nature that may durably persist in an individual if practiced continuously and consistently. Some examples of the spiritual coping with job stress among nurses include prayers and meditation, which is considered as positive (Grafton et al. 2010). A study in California identified that practicing Jin Shin Jyutsu (a selfcare spiritual coping with stress-use hand contacts on specific locations of the body to harmonise the flow of vital energy circulating through them) had statistically significant decreases the stress among nurses whom practiced it (Lamke et al. 2014). Another study conducted in North Carolina that explore the health promoting behaviours of the nursing staffs in the rural hospital found that spirituality and prayer was the most prevalent technique for stress management because

of its benefits to facilitate healthier lifestyles and enhancing wellness (Lubinska-Welch et al. 2016).

In contrast, coping with stress could also be negative. These depends on the individual's mental health such as self-esteem or optimism, and external psychosocial resources, such as social support or social identity (Schönfeld et al. 2016). Negative means of coping with stress could include having self-negative speeches, over drinking coffee or alcohol, smoking and drug abuse. Other negative stress management also include suicide thoughts, speedy driving, overeating or eating less, and isolation (Laal 2013).

## **Spiritual Coping with Stress Among Nurses**

Spiritual coping with stress is associated with developing a person's positive attitude, and devotion towards the practice or religion. As such, spiritual coping with stress such as Bible reading or prayers had been identified as successful practice in job stress management (Ramlee et al. 2016).

Some examples of positive spiritual coping with job stress are meditation such as mindfulness meditation which are widely practiced in India with the belief that it could lower the persons ego, reduce stress, lower blood pressure, strengthen awareness, and offer general well-being (Pănescu et al. 2013). Positive spiritual coping with stress practiced by Muslim nurses include reciting the Al-Quran,

Hanif Abdul Rahman Hanif.rahman@ubd.edu.bn

<sup>&</sup>lt;sup>1</sup> PAPRSB Institute of Health Sciences, Universiti Brunei Darussalam, Jalan Tungku Link, Brunei-Muara, Gadong 1410, Brunei Darussalam

<sup>&</sup>lt;sup>2</sup> Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital, Ministry of Health, Bandar Seri Begawan, Brunei Darussalam

performing prayers, and doing good deeds (Baharuddin and Ismail 2015).

Brunei is a multiracial and multicultural country. Most of the residents are Malays (66.0%). Chinese (10.1%) and other races (23.9%). The predominant religion is Islam where it integrates not only as the principal religion in the country but also as a complete way of life of the people of Brunei, mainly based on the principles of the Malay Islamic Monarchy. In terms of spiritual coping among nurses, only one study was found. The study showed that traditional Chinese exercise named Qigong, which utilizes the mind-body intervention, similar to Tai Chi and Alexander Technique, was able to reduce the amount of stress as it was believed to improve the psycho-physical health status of nursing students (Chan et al. 2013). This is reflective in the extant literature where, although stress management studies are abundant, there is still lack of studies examining spiritual coping among nurses. Therefore, there is a need in exploring the spiritual coping with stress, particularly among emergency and critical care nurses for two reasons. First, taking into consideration that spiritual coping with stress is one of the most durable means of coping with stress. Second, considering that these are among the most stressful areas in nursing.

Definition of spiritual coping is complex and difficult. In this study, the authors adapted the definition and instrument from Charzyńska (2015). Spiritual coping is an inherent trait of human being that could be positive or negative in the domains of personal, social, environmental and religious.

# Methods

#### Purpose

The aim of this study was to explore the spiritual coping with stress among the nurses in the Emergency Department (ED) and Critical Care Services (CCS) in Brunei Darussalam.

#### Design

This descriptive, cross-sectional study utilised a predesigned questionnaire—the Spiritual Coping Questionnaire (SCQ; Charzynska 2015).

# **Participants**

There are two main referral public hospitals in Brunei with a total of 184 registered nurses working in the ED and CCS. All the nurses of the ED and CCS in the two public hospitals, regardless of designation, culture and religion were eligible to participate in the study. The inclusion criteria were that the nurses: (1) have at least 1 year working experience, (2) were not recently on leave or back to work at least a week before, and (3) were not returning to work after having a long leave of 3 days or more. The exclusion criteria were: (1) healthcare workers or anyone who were not nurses, (2) nurses with less than 1 year of working experiences.

#### **Data Collection**

The Research Team held a meeting with the ward managers of the study sites. They were provided with the information about the study in terms of inclusion/exclusion criteria for recruitment of subjects. Other information included the purpose of the study, research procedure, participants' welfare (confidentiality, comfort, benefits for participating in the study), and contact information of the researchers. The information was also included in the Participant Information Sheet (PIS) which were attached with two consent forms and a questionnaire in an envelope. The ward managers distributed the package to all the eligible participants (n = 184).

The nurses were given 5 days to complete the questionnaire and return the completed questionnaire along with a piece of consent form to the ward manager in a sealed envelope. The other piece of the consent form was kept by the participants for their references. For questionnaires not returned to the ward manager within 5 days, a verbal reminder was sent to the ward manager, and the questionnaires were redistributed to the participants. Non-return of the questionnaire following the verbal reminder is considered as non-participation. A final total of 113 ED and CCS nurses from the 2 public hospitals whom understood and consented to the study participated.

#### Instrument

From the review of existing studies on spiritual coping with stress, five studies have used the SCQ by Charzynska (2015). The SCQ was a pre-designed and established questionnaire which consisted of 32 elements and a 5-point Likert scale ranging from very inaccurately to very accurately. The original version which was in the English language was translated to Malay, the national language of Brunei. The questionnaire used in our study was self-administered and contained both the English and Malay language, preference by the participants. In addition, two open ended questions were added to the questionnaire in order to obtain the nurses' knowledge and experiences of spiritual coping with stress. The Malay version of the SCQ is the first in the Asian region. Based on the reliability and validity test in application to nurses in Brunei, the Malay version of the SCQ is an added value to be used in other Malay speaking countries such as Malaysia, Singapore, Indonesia and some parts of southern Thailand.

#### **Ethical Considerations**

The Joined-Institutions Research Ethics Committee approved this study (Reference Number UBD/IHS/B3/8). The predesigned questionnaire in this study were also used with permission from the developer (Charzyńska 2015). Participation was anonymous and sufficient information was provided to ensure informed decision for participation in the study.

#### **Data Analysis**

Validation procedure was conducted to re-establish validity and reliability estimates of SCQ. Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity was first checked to determine sampling adequacy. Inter-scale correlation (correlation matrix), corrected item-total correlation (CITC), average variance extracted and Cronbach's alpha was computed to establish discriminant validity, convergent validity, composite reliability and internal consistency reliability respectively, of the numerical scales. Descriptive statistics was then examined. Frequency and percentage were reported for categorical variable. Mean and standard deviation reported for numerical variables. Additionally, independent t test and one-way analysis of variance (ANOVA) were used to compare between spiritual coping scores and sociodemographic factors. P value less than 0.05 are considered statistically significant (two-tailed). All statistical analysis was computed using IBMISPSS version 21.

# Results

A total of 113 valid questionnaires (61.4% response rate) were used as data points for analysis. Table 1 demonstrates the validity and reliability estimates for SCQ. KMO index was 0.812 and Bartlett's test was significant ( $\chi^2 = 1928.9$ ,

P < 0.001). Since KMO value is above 0.70 and Bartlett's test was statistically significant, this indicated sampling adequacy. In terms validity, after pilot study, the instrument was modified corresponding to the changes suggested by pilot participants to improve face and content validity. CITC for all numerical scales ranges from 0.5 to 0.8 indicating satisfactory to good convergent validity. However, communalities for items 1, 3, 19, 22 were below 0.3 indicating there might be correlation issues with other items. The correlation matrix showed that all scales have good discriminant validity (r value is above 0.3) except for correlation between "social (positive)" scale and "social (negative)" scale, which has loading below 0.30 indicating low correlation, that is expected since they are measuring opposite aspects of the social scale. However, they were still positively correlated despite the intended measure was supposed to be opposite. In terms of reliability, all the scales and subscales had acceptable to good estimates. Average variance extracted estimates were above satisfactory (0.6 and above). Cronbach's alpha coefficient was above 0.70 indicating good internal consistency reliability. The overall variance explained by these factors for 'Spiritual Coping' was 58.8%. The validation estimates were good or satisfactory.

Table 2 summarises the demographic data. Majority of the respondents were married (n=82; 72.6%). Of the total sample, 81 (71.7%) were female, majority were from the age group 30–39 years (n=50, 44.2%). About half of the respondents (n=58; 51.3%) were working in ED, 35 (31.0%) in SICU and 20 (17.7%) in MICU. Majority of the respondents were nurses (n=97; 85.8%). The working experience varied with 48 (42.5%) have been hospital employees for more than 15 years.

Table 3 illustrates the scores for spiritual coping scales. Overall, the scores indicated that the participants' coping strategies were mainly positively especially through religious activities such as finding relief in prayer, focus on higher power, and feel the presence of God in everyday life.

Table 1Correlation matrix,average variance extractedand Cronbach's alpha of SCQ(N = 113)

|   | 1      | 2      | 3      | 4      | 5      | 6     | 7 | AVE   | Alpha |
|---|--------|--------|--------|--------|--------|-------|---|-------|-------|
| 1 | 1      |        |        |        |        |       |   | 0.601 | 0.791 |
| 2 | 0.61** | 1      |        |        |        |       |   | 0.632 | 0.874 |
| 3 | 0.65** | 0.37** | 1      |        |        |       |   | 0.699 | 0.869 |
| 4 | 0.71** | 0.50** | 0.53** | 1      |        |       |   | 0.754 | 0.910 |
| 5 | 0.37   | 0.28   | 0.27   | 0.44   | 1      |       |   | 0.643 | 0.754 |
| 6 | 0.30*  | 0.20*  | 0.37   | 0.39   | 0.32** | 1     |   | 0.572 | 0.767 |
| 7 | 0.23*  | 0.48*  | 0.32** | 0.35** | 0.59** | 0.46* | 1 | 0.691 | 0.829 |

*I* Personal scale (positive): Items 2, 6, 27, 31, 2 Social scale (positive): Items 11, 17, 22, 26, 29, 32, 3 Environmental scale (positive): Items 1, 7, 20, 23, 28, 4 Religious scale (positive): Items 4, 5, 9, 13, 25, 30, 5 Personal scale (negative): Items 10, 19, 21, 24, 6 Social scale (negative): Items 8, 12, 14, 16, 7 Religious (negative): Items 3, 15, 18, *AVE* average variance extracted, *Alpha* Cronbach's alpha

\*Correlation significant at 0.05 (2-tailed)

\*\*Correlation significant at 0.01 (2-tailed)

Table 2 Descriptive statistics of participants

| N=113                               | n (%)     |
|-------------------------------------|-----------|
| Age (years)                         |           |
| < 20                                | 1 (0.9)   |
| 20–29                               | 21 (18.6) |
| 30–39                               | 50 (44.2) |
| 40-49                               | 32 (28.3) |
| > 50                                | 9 (8.0)   |
| Area of employment                  |           |
| Emergency Department                | 58 (51.3) |
| Surgical Intensive Care Unit        | 35 (31.0) |
| Medical Intensive Care Unit         | 20 (17.7) |
| Gender                              |           |
| Female                              | 81 (71.7) |
| Male                                | 32 (28.3) |
| Marital status                      |           |
| Married                             | 82 (72.6) |
| Single                              | 23 (20.4) |
| Divorced                            | 5 (4.4)   |
| Widowed                             | 3 (2.7)   |
| Designation                         |           |
| Staff Nurse                         | 97 (85.8) |
| Nursing Officer                     | 5 (4.4)   |
| Special Grade Assistant Staff Nurse | 5 (4.4)   |
| Senior Staff Nurse                  | 2 (1.8)   |
| Senior Assistant Nurse              | 2 (1.8)   |
| Assistant Nurse                     | 2 (1.8)   |
| Working experience (years)          |           |
| < 1                                 | 1 (0.9)   |
| 1–4                                 | 11 (9.7)  |
| 5–9                                 | 30 (26.5) |
| 10–14                               | 23 (20.4) |
| > 15                                | 48 (42.5) |

n Frequency

 Table 3
 Scores for spiritual coping scales (N = 113)

|                          | Mean | SD   | (95% CI)     |
|--------------------------|------|------|--------------|
| Personal (positive)      | 3.9  | 0.74 | (3.77, 4.05) |
| Social (positive)        | 3.9  | 0.63 | (3.74, 3.98) |
| Environmental (positive) | 3.5  | 0.90 | (3.34, 3.67) |
| Religious (positive)     | 4.3  | 0.83 | (4.13, 4.44) |
| Personal (negative)      | 1.5  | 0.61 | (1.43, 1.66) |
| Social (negative)        | 1.9  | 0.78 | (1.79, 2.08) |
| Religious (negative)     | 1.7  | 0.70 | (1.61, 1.87) |
|                          |      |      |              |

Scoring: 1=lowest, 5=highest

SD standard deviation, CI confidence interval

This was followed by personal coping strategies that were finding inner peace, finding sense in what happen, know self-better, and concentrate on inner life.

Continued by social coping such as taking care of other people, compassionate towards other people's pain, trying to be fair to others, reacting when someone was hurt, nurture attitude of love towards others, and trying to help others. This was then followed by environment coping for example taking care of the environment, seeking closeness to nature, trying to find harmony with nature, trying to notice beauty and uniqueness of nature, and trying to notice harmony in nature.

The participants were observed to have less inclination to use negative coping mechanisms whether personal [such as dreaming of ceasing to be (n=6; 5.3%), convincing themselves to be a bad person (n=5; 4.42%), convincing themselves that their life had no goal (n=4; 3.54%), convincing themselves that their life had no sense (n=3; 2.65%)], social [perceiving others as evil (n=7; 6.19%), perceiving others as egoists (n=11; 9.73%), perceiving others as hypocritical (n=4; 3.53%), seeking revenge (n=5; 4.42%)] or religious activities (such as accusing God/Higher Being for the negative events in life (n=4; 3.53%), angry that God/Higher Being left them (n=3; 2.65%), perceiving God/Higher Being punished them for their sins (n=31; 27.41%), indicating that nurses and midwives in ED and CCS generally do not use negative coping strategies as stress coping methods.

Furthermore, we can estimate (95% confidence) that the population of nurses and midwives in emergency and critical care settings would have positive religious coping as the highest stress reducing mechanism and lowest negative personal and religious coping strategies.

# Association Between Coping Scores and Sociodemographic Factors

There is significance between the mean of positive social coping score between ED (mean = 3.7, SD = 0.63) and medical intensive care unit (mean = 4.2, SD = 0.58) where MICU uses significantly higher social coping approaches (F-statistics = 4.66, P = 0.012).

There is also statistical significance between years of experience and positive personal coping, positive environmental coping and negative religious coping. Those who have been working more than 15 years were using significantly higher positive personal (P < 0.001) and environmental coping (P = 0.030), and significantly lower negative religious coping (P = 0.030).

No statistical significance was detected for age, gender, marital status and spiritual coping scores. We can postulate that Brunei Darussalam has a comprehensive Islamic education and strong social adhesion that equips nurses, without regards to age groups, gender and marital status, the fundamental spiritual methods of coping with negative events in life including stress.

# ED and CCS Nurses' Knowledge and Experiences on the Spiritual Management of Job Stress

Table 4 demonstrates the commonly quoted current hard situation faced by nurses. Workload was the main current hard situation or stressor (n=33; 29.2%) where most nurses mentioned that it was due to the busy schedule or roster. This was followed by understaffing (n=15; 13.3%) and facing the public (12; 10.6%). According to the respondents, facing the public was a hard situation as a result of the patients', families', or relatives' demanding behaviours, high expectations or uncooperativeness.

Table 5 illustrates the commonly quoted nurses' knowledge on spiritual stress coping. Majority of nurses perceived spiritual stress coping as religious (n=53; 46.9%) by stating that it is defined as being closer to God/Higher Being such as through prayers and remembering God/Higher Being. Second was personal (n=34; 30.1%) where they perceived spiritual stress coping as achieving inner peace or strength, having a positive attitude such as positive thinking, and selfcare or self-management for example caring for own health through exercise and consuming healthy foods. This was followed by the perception of spiritual stress coping as social (n=7; 6.19%) such as gaining support or advice from others such as family or friends.

Table 6 demonstrates the commonly quoted nurses' experience of spiritual stress coping. Religious approach was abundantly practiced by the nurses (n=49; 43.4%). Mostly practiced prayers and trusting in God/Higher Being on every event that occurred to cope with their job stress. Next was personal approach 34 (30.1%) followed by social approach (n=15; 13.3%). According to the respondents, personal approach includes relaxation activity such as meditation or exercise such as Yoga, while social approach includes talking to someone they trust such as family, friend, or boss.

# Discussion

The subjects scored highly in positive religious behaviour as the main coping to job stress, followed by positive personal and social behaviour and vice versa on negative spiritual

 Table 4
 Commonly quoted

 current hard situation faced by
 nurses

| N=113             | n (%)     |
|-------------------|-----------|
| Workload          | 33 (29.2) |
| Understaffing     | 15 (13.3) |
| Facing the public | 12 (10.6) |
|                   |           |

n Frequency

 Table 5
 Commonly quoted nurses' knowledge on spiritual stress coping

| Theme     | Subthemes N = 113                                    | n (%)     |
|-----------|--|-----------|
| Religious | Being closer to God/Higher Being                     | 53 (46.9) |
| Personal  | Achieve inner peace<br>Positive thinking<br>Selfcare | 34 (30.1) |
| Social    | Gain support from others                             | 7 (6.19)  |

n Frequency

coping scales. Despite the lack of integration in spiritual components in its physical infrastructure, health policy and management, spiritual coping practices are highly prevalent in healthcare settings. They perceived spiritual coping with stress as religious approach, followed by personal approach, social approach and environmental approach respectively. Majority of the ED and CCS nurse practices positive spiritual approach to coping with job stress where, Religious Positive Coping is dominant; finding relief in prayer, focus on higher power, and feel presence of God.

We can postulate that Brunei has a comprehensive Islamic education and strong social adhesion that equips everyone, without regards to age groups, gender and marital status, the fundamental spiritual methods of coping with negative events in life including stress. This is evidenced by the compulsory implementation of the Islamic Religious Knowledge curriculum in all state schools in Brunei, taught to both Muslim and non-Muslim students where the main goal is to create a moral society based on Islamic lessons and teachings (Abdul-Mumin 2018). There is also existence of strong social adhesion in Brunei that highlighted spiritual aspects of life such as that instilled in the religion and the culture of Brunei as emphasized in the Melayu Islam Beraja (Malay Islamic Monarchy), the Brunei national philosophy (Chin and Haji Mohd Daud 2015). Similarly, a study conducted in Abadan and Jahrom Medical Sciences Universities' affiliated educational hospitals also identified that majority of their participants stated religious approach to coping with their job stresses such as through prayers, reciting the Al-Quran, and seeking help and feeling support from God or Higher Being as most of their participants reported that this

 Table 6
 Commonly quoted nurses' experience of spiritual stress coping

| Theme     | Subtheme $N = 113$                | n (%)     |
|-----------|-----------------------------------|-----------|
| Religious | Pray<br>Trust in God/Higher Being | 49 (43.4) |
| Personal  | Relax<br>Exercise                 | 34 (30.1) |
| Social    | Talk to someone                   | 15 (13.3) |

n Frequency

approach has tension relieving factors with good effects among the nurses (Akbar et al. 2016).

Other than the Islamic practices, a similar study that identified religion as the major spiritual coping with job stress was conducted in Canada that highlight a significant effect between religious spiritual coping with stress such as through prayers (Wagner and Gregory 2015). In the US, stress coping of Filipino immigrant nurses identified that all the nurses whom are all Christians, and mostly Catholic practices the religious spiritual coping with job stresses that was through praying for themselves and others as they expressed the strength and solace of prayers in aiding them during difficult times (Connor 2016).

With regards to relationship between spiritual coping with stress and sociodemographic factors, this study had identified that nurses who have longer work experience were significantly better in positive coping. Similarly, a study in Iran also identified that job experience were significant factors or managing stress, where nurses with more job experience coped with stress more positively than those with less job experience (Laal 2013). This finding is also supported in a mixed-method study by Chen and Hsu (2015) that indicated experienced nurses with at least 1.5 years of job experience reported to positively cope with stress easier compared to newly graduated nurses. This is in view that nurses whom have longer work experience would have gained more knowledge and took part in professional developments.

Although six studies examining job related stressors and individual characteristics among Japanese nurses, Chinese, Twine and Ugandan nurses indicated that statistically significant differences were found between sociodemographic data such as age, gender, educational backgrounds, years of experience, family situation and type of hospital, and nurses' or midwives' stress coping strategies including spiritual coping (Wazqar et al. 2017). This was not the case in this study. There was no statistical significance detected for age, gender, marital status and spiritual coping scores in this study. The possible reason may be due to the comprehensive Islamic education and strong social adhesion in Brunei that equips everyone, without regards to age groups, gender and marital status, the fundamental spiritual methods of coping with negative events in life including stress. However, it is far from perfect as evidence by a few participants still used negative coping mechanisms, acknowledging this finding is important to emphasise that further intervention is necessary.

The findings of this study serve as a basis for further studies to identify methods to either maintain the current spiritual coping with job stress amongst the nurses in Brunei or develop further interventions in order to improve the job stress management using the spiritual coping. One common type of approach to manage stress in the hospital settings for nurses with less working experience include the social approach where it focuses on team development such as working towards goals that include occupational safety, reflective dialogue and feedback among workers, supervisor support, feedback and involvement in decision making, and implementing an ethics code for health care workers (d'Ettorre and Greco 2015). As Brunei is a strong Islamic country, the principles of Islam may be instilled in the individual and organizational level, not only at work but also in all aspects of life for facilitating developments of positive spiritual coping with stress.

It is also suggested that strategies of coping with job stress that includes the spiritual coping with stress should be included in the nursing curriculum for the students as learning this encourage future nurses to be prepare and better equip themselves to coping with future job-related stresses. Early intervention is important before it is too late so that student nurses will be able to integrate this skills into the lifestyle (Delaney et al. 2015).

Furthermore, as for referral support system, nurses experiencing stress or coping with negative spiritual approach should be encouraged to verbalise their problem to their respective ward managers for further intervention. They may be offered appropriate support, for example referral to pious and counsellors as accordance to the action plan of the Brunei Darussalam National Multisectoral Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2018 where it provides guidelines for different ministries in the country to manage the workers, such as nurses' health, which may include stress.

The strength of this study is that it is able to identify the different types of spiritual coping with stress and strategies practiced among nurses in Brunei. This study is only limited to, hence representative and may be generalize to nurses' population in the ED and CCS of the two-main referral Brunei public hospitals. Future in-depth study on the significance of spiritual coping with stress may add value to the existing data.

# Conclusion

Emergency and Critical Care nurses experienced a high stress level due to the nature of the workplace that requires high dependency nursing care. The situation in these areas are most often considered as hard situation. Spiritual coping with stress is found to be practice in the ED and CCS, specifically that rooted in religious practices. Notwithstanding, negative spiritual coping with stress were also evident that definitely denote acknowledgement for intervention in nursing stress management. However, comparability with other stress management techniques require further investigations. Spiritual coping practices are highly prevalent in healthcare settings that still lacks integration of spiritual components in its physical infrastructure, health policy and management. Therefore, more studies are required for the application of spirituality in all aspects of health practices.

**Acknowledgements** Sincere thanks to all the participants, nurse managers, and administrative staff of the Emergency Departments and Critical Care Services at the two Public Hospitals involved in this study.

#### **Compliance with Ethical Standards**

Conflicts of interest We have no conflicts of interest to declare.

# References

- Abdul-Mumin, K. H. (2018). The process of internationalization of the nursing and midwifery curriculum: A qualitative study. *Nurse Education Today*, 46, 139–145. https://doi.org/10.1016/j. nedt.2016.09.003.
- Akbar, R. E., Elahi, N., Mohammadi, E., & Khoshknab, M. F. (2016). What strategies do the nurses apply to cope with job stress? A qualitative study. *Global Journal of Health Science*, 8(6), 55–64. https://doi.org/10.5539/gjhs.v8n6p55.
- Baharuddin, E. B., & Ismail, Z. B. (2015). 7 Domains of spiritual intelligence from Islamic perspective. *Procedia: Social and Behavioral Sciences*, 211, 568–577. https://doi.org/10.1016/j. sbspro.2015.11.075.
- Chan, E. S., Koh, D., Teo, Y. C., Hj Tamin, R., Lim, A., & Fredericks, S. (2013). Biochemical and psychometric evaluation of Self-Healing Qigong as a stress reduction tool among first year nursing and midwifery students. *Complementary Therapies in Clinical Practice*, 19(4), 179–183. https://doi.org/10.1016/j.ctcp.2013.08.001.
- Charzyńska, E. (2015). Multidimensional approach toward spiritual coping: Construction and validation of the Spiritual Coping Questionnaire (SCQ). *Journal of Religion and Health*, 54(5), 1629– 1646. https://doi.org/10.1007/s10943-014-9892-5.
- Chen, S.-Y., & Hsu, H.-C. (2015). Nurses' reflections on good nurse traits: Implications for improving care quality. *Nursing Ethics*, 22(7), 790–802.
- Chin, G. V. S., & Haji Mohd Daud, K. (2015). Negotiating difference: The trope of anak derhaka and ideological endings in Bruneian writings. *The Journal of Commonwealth Literature*, 50(2), 101–114.
- Connor, J. B. (2016). Cultural influence on coping strategies of Filipino immigrant nurses. Workplace Health and Safety, 64(5), 195–201.

- d'Ettorre, G., & Greco, M. (2015). Healthcare work and organizational interventions to prevent work-related stress in Brindisi, Italy. *Safety and Health at Work*, 6(1), 35–38.
- Delaney, C., Barrere, C., Robertson, S., Zahourek, R., Diaz, D., & Lachapelle, L. (2015). Pilot testing of the NURSE stress management intervention. *Journal of Holistic Nursing*. https://doi. org/10.1177/0898010115622295.
- Grafton, E., Gillespie, B., & Henderson, S. (2010). Resilience: The power within. Oncology Nursing Forum. https://doi. org/10.1188/10.ONF.698-705.
- Laal, M. (2013). Job stress management in nurses. *Procedia: Social and Behavioral Sciences*, 84, 437–442. https://doi.org/10.1016/j. sbspro.2013.06.581.
- Lamke, D., Catlin, A., & Mason-Chadd, M. (2014). "Not Just a Theory" the relationship between Jin Shin Jyutsu® self-care training for nurses and stress, physical health, emotional health, and caring efficacy. *Journal of Holistic Nursing*, 32(4), 278–289.
- Lubinska-Welch, I., Pearson, T., Comer, L., & Metcalfe, S. E. (2016). Nurses as instruments of healing: Self-care practices of nurses in a rural hospital setting. *Journal of Holistic Nursing*, 34(3), 221–228.
- Pănescu, O., Timofte, A., Macovei, M., & Popescu, C. (2013). At the crossroads between western and eastern views on psychotherapy: An integrative approach. *Procedia: Social and Behavioral Sciences*, 78, 375–379.
- Ramlee, N., Osman, A., Salahudin, S. N., Yeng, S. K., Ling, S. C., & Safizal, M. (2016). The influence of religiosity, stress and job attitude towards organizational behavior: Evidence from public universities in Malaysia. *Procedia: Economics and Finance*, 35, 563–573.
- Schönfeld, P., Brailovskaia, J., Bieda, A., Zhang, X. C., & Margraf, J. (2016). The effects of daily stress on positive and negative mental health: Mediation through self-efficacy. *International Journal of Clinical and Health Psychology*, 16(1), 1–10.
- Wagner, J. I. J., & Gregory, D. M. (2015). Spirit at Work (SAW) fostering a healthy RN Workplace. Western Journal of Nursing Research, 37(2), 197–216.
- Wazqar, D. Y., Kerr, M., Regan, S., & Orchard, C. (2017). An integrative review of the influence of job strain and coping on nurses' work performance: Understanding the gaps in oncology nursing research. *International Journal of Nursing Sciences*. https://doi. org/10.1016/j.ijnss.2017.09.003.

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.