Compassion fatigue and burnout in Iranian nurses: The role of perceived social support

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ABSTRACT

Background: Nurses are at risk for symptoms of compassion fatigue (CF) and burnout (BO). Social support plays an important role in predicting CF and BO. This study was performed to determine the prevalence of the symptoms of CF and BO and the role of perceived social support in predicting these symptoms in Iranian nurses.
Materials and Methods: Using a correlational descriptive survey research design, we selected 173 participants among the nurses working in public hospitals of Malayer, Iran. Professional Quality of Life (CF and BO subscales) and Multidimensional Scale of Perceived Social Support (MSPSS) were used for collecting the data.
Results: The obtained results indicated that the prevalence of CF and BO symptoms was 45.3% and 15.03%, respectively, in Iranian nurses. Social support (significant other, family, and friends) was negatively correlated to BO ($P < 0.01$). Also, there was a negative correlation between social support from family and CF ($P < 0.01$). According to hierarchical multiple regressions, social support from family was the significant predictor to CF ($P < 0.005$) and BO ($P < 0.001$) in nurses.
Conclusions: Based on the obtained results, some nurses (especially emergency nurses) are at risk for CF and BO and social support negatively correlated to CF and BO in Iranian nurses. It is necessary to develop support systems for nurses who are at risk for CF and BO.

Key words: Burnout, compassion fatigue, Iran, nursing, social support

INTRODUCTION

In the caring profession, nurses form the largest group whose principal mission is taking care of people in the human health experience. Nurses provide services to patients in hospitals, nursing homes, long-term care facilities, as well as to clients using supportive and preventative programs and related community services.[1] Nurses provide presence, comfort, help, and support for people confronted with loneliness, pain, incapacity, disease, and even death. In fact, nursing is a stressful job.[2] Health care individuals such as emergency responders and nurses are the first responders during times of disaster. These types of responders and anyone who works with victims or trauma survivors are at the risk of developing stress and other variables that are related to stress such as compassion fatigue (CF) and burnout (BO).

CF is "a state of tension and preoccupation with the individual or cumulative trauma of clients as manifested in one or more ways, such as re-experiencing the traumatic event, avoiding reminders of traumatic events, persistent arousal, combined with the added effects of cumulative stress/BO."[3] The symptoms of CF are feelings of powerlessness, depression and affective numbness, sleep disturbances and nightmares, autonomic arousal, memory gaps, dissociation, rumination, and intrusive thoughts and images.[4] Joinson (1992) who coined the term "CF" found that nurses were at a greater risk for CF, and it could be harmful to the emotional and physical well-being of the nurse.[5] CF is experienced by nurses working with children with chronic conditions and their families.[6]

BO is "a state of physical, emotional, and mental exhaustion caused by long-term involvement in emotionally demanding situations."[3] Kahill (1988) divided the symptoms of BO into the following ones: physical symptoms (fatigue, somatic complaints, and sleeping problems), emotional symptoms (guilt, anxiety, and feelings of helplessness), behavioral symptoms (substance abuse, aggression, and callousness), work-related symptoms (absenteeism, habitual lateness, decline in performance, and resignation), and interpersonal problems (impaired communication and relating with clients and colleagues, or dehumanizing or intellectualizing clients).[3]

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A review of the existing literature showed that the staff in community-based mental health services with psychological distress reported both higher BO and CF scores and lower levels of compassion satisfaction (CS).[7] Employee Assistance Program (EPA) professionals are at moderate risk for CF, low risk for BO, and have high potential for CS.[8] Nurses who work in the heart and vascular intermediate and intensive care unit (ICU) had average to high scores of CS and low to average levels of BO.[9] Literature shows that 86% of emergency nurses have moderate to high levels of CF and approximately 82% BO.[10] Researches show that 15% of the hospital and home care nurses had scores indicating risk of the CF, and the CF scores were significantly different between nurses who worked in 8-h shifts and those who worked in 12-h shifts.[11] Also, high level of BO was identified in 46.5% of the physicians working in ICU.[12] Other studies indicated that approximately 50% of Colorado county child protection staff suffered from CF, the risk of BO was considerably lower, and more than 70% of staff expressed a high potential for CS.[13] Some researchers reported the prevalence of BO in Iranian nurses and midwives. For example, 21.9% of nurses of Tabriz in 2010 suffered from professional BO[14] and the high levels of emotional exhaustion and depersonalization were 9.3% and 14.5%, respectively, in the midwives of Isfahan in 2011[15] and 33.2% and 31.3% in nurses working in clinical and educational sections, respectively, of Arak University of Medical Sciences in 2008.[16] Another research indicated that 25% of female nurses of Yazd in 2012 had high occupational BO.[17] But no research on the prevalence of CF was conducted on Iranian nurses.

Social support has been defined as the actual or perceived availability of helpful behaviors by others.[18] Higher levels of support from co-workers were correlated to lower levels of emotional exhaustion in nurses, and higher stressor scores were related to higher levels of depersonalization for staff reporting high levels of social support, but not for those reporting low levels of support.[19] Social supportive behaviors are correlated to commitment for work and units' decision-making style in nurses.[20] Perceived organizational support is related to nurses' health and job satisfaction.[21] Social support (supervisory support and family support) was negatively related to BO and secondary traumatic stress (STS).[22] Career, social support, and STS had a significant effect on BO and accounted for 24% of it in firefighters.[23] According to Halbesleben and Buckley (2004), people who experience more social support report lower BO scores.[24] There was a statistically significant relationship between social support and BO of Iranian nurses (Shiraz) in 2010.[25] Other studies in Iran showed that familial and head nurse support was negatively correlated to emotional exhaustion and that spousal support was negatively associated with emotional exhaustion and depersonalization in nurses of psychiatric hospitals affiliated to medical universities of Tehran.[26]

The purpose of the present study was to examine the prevalence of the symptoms of CF and BO and the role of social support in predicting these symptoms in Iranian nurses. Nursing is one of the stressful jobs and is related to helping patients. So, research about the prevalence of the CF and BO and variables related to health of nurses plays an important role in improving the mental health of nurses in Iran. Information about the relationship among social support, CF, and BO can help researchers, psychologists, counselors and organizations to provide the social support for improving the health of nurses.

MATERIALS AND METHODS

A correlational descriptive survey was used to investigate the prevalence of CF and BO and the relationships among social support, CF, and BO. In the present study, social support was considered as a predictive variable and the CF and BO as criterion variables. The duration of the research was 3 months starting from the beginning of 2013.

The population of the current study consisted of all nurses who worked in hospitals of Malayer, Iran. According to Krejcie and Morgan's (1970) table [27], the sample size representative of the nurses in this research is 164. First, 200 nurses were selected by availability sampling method among nurses of Malayer hospitals: Mehr (48%), Imam Hussein (27%), and Gharazi (25%). Finally, 27 nurses were excluded from the sample. They did not fill out the scales completely. The final sample consisted of 173 (61.3% male and 38.7% female) nurses. Fifty-four and three-tenths percent of nurses were emergency nurses. Among them, 83% were married and 17% were single. Nineteen percent had associate degree, 71% were BA, and 10% had MA degree. Their mean age was 31.77 years (SD = 6.38) and the mean for job experience was 10.06 years (SD = 4.55). The participants signed the informed consent sheets, and filled out the scales in nursing room; they spent approximately 25–35 min filling out the scales.

In the current study, three instruments were used for collecting the data:

Socio-demographic variables
The demographic information sheet was used to obtain information regarding age, gender, job experience, marital status, education level, and occupational status.

Professional quality of life (ProQOL) (CF and BO subscales)

This scale was developed by Figley (1996) and revised by Stamm (2005).[28] The ProQOL includes three 10-item subscales: CS, BO, and CF. The ProQOL involves selecting response choices on a 0 (never) to 5 (very often) Likert scale. Higher scores represent greater severity of CS, BO, and CF. The scores which may indicate danger are CF greater than 17, BO greater than 27, or CS less than 33.[28] The alpha reliabilities for CS, BO, and CF were 0.87, 0.72, and 0.80, respectively.[29] CF and BO subscales were used in the current study and the alpha reliabilities for CF and BO were 0.76 and 0.88, respectively.

Multidimensional scale of perceived social support (MSPSS)

The MSPSS is a measurement for perceived social support (emotional, instrumental, informational, and appraisal) from three sources of individuals' social lives: family, friends, and significant others. This scale, developed by Zimet *et al.* in 1988, contains 12 items.[30] The MSPSS makes use of a 7-point Likert-type scale for its measurements, with ratings from "1 = very strongly disagree" to "7 = very strongly agree." The range of possible scores is 12–84, with higher scores (or mean scores) representing higher levels of perceived social support. The MSPSS produces three scores. The Cronbach's coefficient alpha values in Zimet *et al.* were 0.91, 0.87, and 0.85 for significant other, family, and friends subscales, respectively.[30] also, Cronbach's alpha values of 0.88 was found for the family, 0.90 for the friends, and 0.61 for the significant other subscales.[31] The Cronbach's alpha value for the scale in the present study was 0.88, and 0.91, 0.83, and 0.86 for the significant other, family, and friends subscales, respectively.

Statistical analysis

All analyses were performed using SPSS, version 20. In a multiple linear regression analysis, the social support was specified as the predictive variable and CF and BO as the criterion variables. The Pearson correlation coefficient and hierarchical multiple regressions model were used for data analysis. *P* values of 0.05 or less were interpreted as statistically significant. All usual ethical considerations for biomedical researches have been considered and applied to this work.

RESULTS

Table 1 shows that 45.7% and 15.03% of nurses were at risk for CF and BO, respectively. Also, 54.3% of emergency and 35.4% of non-emergency nurses suffered from CF, and 19.2% of emergency and 11.4% of non-emergency nurses were at risk for BO.

Table 2 indicates that there was an inverse correlation between social support and BO, but no meaningful correlation between social support and CF. Also, social support from significant other was negatively correlated to BO, social support from family negatively correlated to CF and BO, and there was an inverse correlation between social support from friends and BO.

A number of hierarchical multiple regressions were used to test the role of social support in predicting the participants' scores of CF and BO. According to adjusted R^2 in regression model, the model accounts for 0.3% of variance in CF, and social support from family (B = –0.302, $P < 0.005$) was a significant predictor of CF in nurses [Table 3].

According to adjusted R^2 in the regression model, the model accounts for 0.10% of the explained variance in BO, and social support from family (B = –0.408, $P < 0.001$) was a significant predictor of BO in nurses [Table 4].

Table 1: Prevalence of CF and BO in nurses (emergency and non-emergency)

Group	CF scores				BO scores			
	Higher than 17		Lower than 17		Higher than 27		Lower than 27	
	n	%	n	%	n	%	n	%
Emergency nurses	51	54.3	43	45.7	18	19.2	76	80.8
Non-emergency nurses	28	35.4	51	64.6	9	11.4	70	88.6
All nurses	79	45.7	94	54.3	26	15.03	147	84.97

Table 2: Mean and standard deviation of variables and correlation of social support with CF and BO

Variables	Mean (SD)	Criterion variables			
		CF	*P*	BO	*P*
Social support	69.21 (11.96)	−0.133	0.08	−0.236	0.002
From significant other	23.72 (4.62)	−0.039	0.61	−0.147	0.05
From family	24.13 (4.67)	−0.179	0.02	−0.308	0.001
From friends	21.35 (5.29)	−0.119	0.12	−0.151	0.048
CF	17.95 (10.22)				
BO	19.79 (7.22)				

Table 3: Predicting the CF by social support

Source	Mult. R	ΔR²	F	DF	*P*	B
Social support from significant other	0.039	−0.04	0.261	1,172	0.61	−0.039
Social support from family	0.217	0.036	4.183	2,172	0.005	−0.302
Social support from friends	0.220	0.032	2.858	3,172	0.62	−0.044

Table 4: Predicting the BO by social support

Source	Mult. R	ΔR²	F	DF	P	B
Social support from significant other	0.147	0.021	3.751	1,172	0.054	−0.147
Social support from family	0.334	0.105	9.939	2,172	0.001	−0.408
Social support from friends	0.327	0.105	6.590	3,172	0.925	−0.008

DISCUSSION

The present study has established the prevalence of CF and BO in the sample of hospital nurses. The obtained data indicated that the symptoms of CF and BO were found in 45.3% and 15.03% of Malayer nurses, respectively. Also, the symptoms of CF and BO were 54.3 and 19.2, respectively, in emergency nurses and 35.4 and 11.4, respectively, in non-emergency nurses. Previous studies have indicated that the staff in community-based mental health services,[7] nurses who work in the heart and vascular intermediate and ICU,[9] emergency nurses,[10] hospital and home care nurses,[11] physicians working in ICU,[12] and child protection staff[12] have symptoms of CF and BO.

Nurses are especially vulnerable to stress and related problems because they can become too empathic due to the degree and duration of contact with their patients, their emotional investments, and frequent exposure to loss.[32] Despite their vulnerability to the effects of the stressors in caring for patients, nurses must keep their physical and psychological health in order to accomplish their responsibilities to patients, families, and their organization. Therefore, they may show symptoms of CF and BO.

To justify high prevalence of the CF and BO symptoms in emergency nurses, it may be said that nurses who work with victims or survivors could be at risk for developing CF and BO. Because according to Figley,[3] CF is a state of tension and a feeling of preoccupation with traumatized patients, and this preoccupation can be evidenced by re-experiencing the traumatic events, avoiding reminders of the event, and persistent anxiety associated with the patient that leads to the reduction of one's capacity or interest in bearing the suffering of others in emergency nurses. In other words, emergency nurses caring for injured and dying patients are continuously exposed to the trauma of patient, and repeated exposure to traumatized patients can potentially affect them. Hence, preoccupation with patients can lead to the emotional and behavioral responses, such as CF and BO symptoms, in emergency nurses.

Some studies in Iran had concluded that 21.9% Tabriz nurses[14] and 25% of female nurses of Yazd[17] suffered

from professional BO. But in our research, 15.03% of nurses suffered from BO. To justify the high prevalence of professional BO in previous studies and low prevalence of BO in our research, it may be said that such a contradiction is probably due to two reasons. First, the instrument used in previous studies and the one in our study are different. In the previous study in Iran, Maslach Burnout Inventory (MBI) was used, whereas in the present study, BO subscale of ProQOL has been used. It can be concluded that the methods of scoring of MBI and BO subscale of ProQOL are different. Second, the contradiction may also be attributable to the place of research. The previous studies were conducted in provincial centers (Tabriz and Yazd) and our research was carried out in a town (Malayer). It is expected that the different cultures of provincial centers and towns lead to the difference in prevalence of BO in nurses. The reason was probably that the workplace stressors such as workload, dealing with death and dying patients, and inadequate preparation in nurses of provincial centers were higher than those in towns.

According to the correlation results, social support from significant other, family, and friends was negatively correlated to BO, while social support from family was negatively correlated to CF. According to hierarchical multiple regression models, social support from family was a significant predictor of CF and BO in Iranian nurses. This finding is consistent with the previous studies. In the previous studies, social support (supervisory support and family support) was negatively correlated to BO[22] and it was the important predictor of BO in firefighters.[23] Also, lower BO scores were reported in people who experienced more social support.[24] Besides, this result is consistent with previous studies in Iran which indicated that social support was negatively correlated to BO,[25] and support of head nurse, familial and spousal support were negatively associated with emotional exhaustion in nurses.[26]

Social support is a key variable in determining a person's response to exposure to traumatic situations.[33] Therefore, social support is a variable that plays an important role in reducing the symptoms of CF and BO in nurses. Based on theoretical models, social support might influence health both directly and indirectly. According to Fiske (1998), the direct effect of social support on health can be examined at various levels such as social and physiological ones. In the direct effect, social support is a basic human need for affiliation.[21] Argyle (1992) stated that social support positively affected the immune system in direct effect.[21] Beehr and O'Hara (1987) reported that indirect effect is related to the stress literature.[21] According to indirect effect, social support is conceptualized as a conditioning

variable that influences the relationship between stressors and health.[21] Accordingly, it can be said that social support indirectly reduces the negative effects of stressors and helps to maintain the health of nurses who are exposed to stressful situations such as helping patients who scrimmage with death. Thus, social support can indirectly reduce the CF and BO in nurses.

One of the important results of the present study is that the social support from family was found to be a significant predictor of CF and BO symptoms in nurses. In the previous findings, social support from family was correlated to buffer to stress,[34] adjustment,[35] positive affect,[36] physical health,[37] and well-being.[38] Therefore, it may be said that family members have an important role in the psychological problems of nurses who work in hospitals. Because family members offer emotional support like esteem, trust, concern, and listening, and these effects can play an important role in reducing the symptoms of CF and BO in nurses.

One of the limitations of the current study was the sample that was limited to the hospitals of Malayer. This suggests that the results should be interpreted with caution and further research with different samples is required in order to generalize the results beyond a sample of nurses in Malayer. The important limitation was using the self-reported scales for measuring the variables, especially for the prevalence of the symptoms of CF and BO. Due to the shortage of time and workload of nurses, diagnostic interview was not used to assess the symptoms of CF and BO. Therefore, using the diagnostic interview to assess the symptoms of CF and BO is important in future studies. This suggests that the results should be interpreted with caution.

Conclusion

In conclusion, the obtained results support the prevalence of the symptoms of CF and BO, and the meaningful correlation between social support and symptoms of CF and BO in Iranian (Malayer) nurses. According to the results, it can be suggested that attention to CF and BO symptoms in Iranian nurses and to the variables that are related to problems is very important for researchers, psychologists and counselors, and medicine organizations. Furthermore, it is necessary to develop support system programs for Iranian nurses who are at risk for CF and BO.

Acknowledgments

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