Job Stressors, Coping and Resilience among Nurses in Gaza Strip

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Abstract

Aim: This study aims to find type of work stressors, used coping strategies, and resilience factors and relationship between stressors and coping strategies as mediating factors and resilience as outcome among Palestinian nurses working in Gaza Strip.

Method: This study builds on existing evidence by considering exposure to work-related stressors, as well as on factors associated with later coping and resilience. The sample consisted of 275 randomly selected nurses from representative health services in Gaza, who completed the Nurse Stress Scale, The Connor-Davidson resilience scale, and Brief-COPE.

Results: The most commonly reported job stressors were attending death of a patient, physician not being present when a patient dies, criticism by a supervisor, and fear of making a mistake while treating their patients. The mean score of nurses work stressors was 88.7. Nurses commonly used religious coping such as feeling comfort in religious beliefs, thinking what next steps they have to take, having strategy about what to do about situation what to do, and learn to live with situation as coping strategies with stress. While, use drugs to feel better and to get through was the least commonly used coping strategies. Nurses said that overcome the stressors and had resilience by believing that things happen for a reason, God is helping, and they were pride of their achievements. The results showed that fear of making a mistake in treating a patient was negatively predicting total coping strategies. While stressor such as a physician ordering what appears to be inappropriate treatment for a patient was positively predicted coping strategies. The results indicated that stressor such as physician not being present when a patient dies and too many non-nursing tasks required, such as clerical work was predicting resilience negatively. While stressors such as criticism by a physician and having not enough time to complete all of their nursing tasks were positively predicted resilience among nurse.

Conclusions and recommendations: The results of this study highlight the need to empower the role of the nurse educators, managers and administrators to find ways to make nursing workplace more pleasant and less stressful, especially to the nurses in their initial years of work. The findings of the study will assist human resource managers of the current study setting to determine coping strategies that might help in reducing amount of stress experienced by nurses in their day to day challenging and demanding nursing roles.

Keywords: Coping; Job stress; Gaza nurses; Resilience

Introduction

Within the modern workplace, nurses are exposing to a wide range of potential workplace stressors that requires high levels of professional skills, teamwork and provision of continuous care for patients. Nurses are being put under increasing pressure as they attempt to cope with heavier workloads, longer working hours, organizational restructure, intrinsic job insecurity and technological development. Stress is a contributing factor to organizational inefficiency, high staff turnover, absenteeism because of sickness, decreased quality and quantity of care, increased costs of health care, and decreased job satisfaction [1,2]. Similarly in a study of aimed to find type of job stressors among West Bank Palestinian nurses working in hospitals showed that they said that stressors due to psychosocial problems was the most common stressor (73.8%) followed by stressors due to personality problems (63.33%) [3]. Moreover in study of work-related stress in Croatian university hospital midwives, 76.7% of midwives believed that their job was stressful, and considered that insufficient work resources caused the most stress [4]. In another study Hayes et al. [5] examined the relationships among nurse and work characteristics, job satisfaction, stress, burnout and the work environment of haemodialysis nurses. The study showed that Nurses reported an acceptable level of job satisfaction and perceived their work environment positively, high levels of burnout were found. Older age nurses had worked in haemodialysis the longest had higher satisfaction levels, experienced less stress and lower levels of burnout than younger age nurses. Furthermore, in study exploring the mediating effect of occupational burnout among nurses in paediatric intensive care units from seven teaching hospitals in southern Taiwan, indicated that after controlling for individual demographic variables, the correlations of work stress with occupational burnout, as well as work stress and occupational burnout with depression level were all positive [6].

Coping strategies

According to researcher working the field of coping, they defined coping strategies as the people using cognitive and behavioral efforts to manage the stressors [7]. Coping strategies can either be directed

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at tackling the problem (‘problem-focused coping’) or at managing emotions associated with the stressor (‘emotion-focused coping’) [7,8].

In this field, a study was conducted to find the types and characteristics of trauma among nurses in the workplace in detail, and to make comparison of coping strategies employed by nurses who recovered from traumatic stress and those of nurses with had persistent traumatic stress. The results showed that trauma predominantly consisted of direct exposure to violent language or non-supportive behavior by physicians, followed by witnessing and learning of experiences. The results suggested that positive action, positive thinking, cognitive avoidance, uncontrolled thinking and talking lead to persistence of traumatic stress [9]. Also, in another similar study the impact of occupational stress and coping strategies among emergency department (ED) nurses of China, demonstrated that 46.9% of ED nurses were in the high pressure level of occupational stresses. The study indicated that most of the nurses will be willing to adopt positive coping strategies to deal with stress reaction, especially in nurses with more working experience and professional skills [10].

**Resilience**

The concept of resilience origins can be traced to the discipline of psychology with work beginning in the 1970s [11]. Others such as described resilience as the “capacity to recover from extremes of trauma, deprivation, threat, or stress”. Gillespie et al. [12] use similar terms in their description of the concept but further describe resilience as “an ongoing process of struggling with hardship and not giving up”. Many social researchers began focusing on why some people not only stay healthy, but also do well in the face of adversity and risk. This perception is called resilience, and has become an important concept in research and mental health theory over the past decades [13]. Some people are naturally resilient, as their personality may contribute to the prediction of resilience, others may have to work at it. Others stated that resilience is a complex construct, which is often defined in different ways by researchers in terms of it being a dynamic developmental process, disposition or capacity and a sustained positive outcome. Resilience helps individuals who are living in difficult conditions or who experience abuse, neglect, loss and other adversities, function with low levels of distress and high levels of confidence and hope, which is adequate for effective social and personal functioning, in the working environment, especially a call centre, employees tend to be more dependent on their own ability to manage the challenges they face, and less dependent on external support [14-16]. Moreover in study of resilience and challenges among staff of gulf coast nursing homes sheltering frail evacuees following Hurricane Katrina, showed that staff emphasized providing emotional reassurance to evacuees as well as physical care. Many described caring for evacuees as a blessing, saying the experience helped them bond with residents, evacuees, and other staff. Challenges included communicating with evacuees ‘families, preventing dehydration, lack of personal hygiene supplies, staff exhaustion, and emotional needs of residents, evacuees, and staff [17]. Furthermore, Carvalho et al. [18] showed that individuals with higher levels of resilience appear to be less emotionally exhausted than individuals with lower levels of resilience. Matos et al. [19] examined the relationship between resilience and job satisfaction in psychiatric nurses working in inpatient units in a large, urban medical Centre. Research reported a high level of resilience and high job satisfaction. The job satisfaction subscale of professional status had the highest mean rating among these nurses, and the physician–nurse interaction subscale had the lowest mean score. Implications for future practice and research are addressed. Already resilience can present to be on other hand of stressors and risks. Furthermore, Zander et al. [20] study the coping and resilience factors in pediatric oncology nurses it is well established that pediatric oncology is perceived as a setting that is personally and professionally demanding. From the themes identified within the reviewed studies, it is clear that the applicability of resilience in pediatric oncology nursing has not been thoroughly investigated. The literature suggests that the presence of resilience among pediatric oncology nurses is possible. What is not known is whether there is a link between this resilience and ability to cope with the stressors of pediatric oncology. The purposes of this study were to identify types and severity of job stressors among Palestinian nurses, 2) to identify coping strategies used by nurses 3) to find resilience factors used by nurses, and 4) to examine the relationship between work stressors, coping strategies and resilience among nurses working in Gaza Strip.

**Methods**

**Setting and sample**

The nursing profession in Gaza has significantly increased in recent years, to almost 6,000 practitioners (or ratio of 1 per 5,000 population), of whom two thirds are under the age of 37 years. There are comparatively more male, public sector and UN-employed, but less Non-Governmental -employed nurses in the Gaza Strip than in the West Bank, patterns which reflect the respective populations and services [21].

According to hospital type 10% of nursing practitioners were selected from each hospital or other type of health setting in the Gaza Strip to provide a representative sample of the workforce. These were selected from the Ministry of Health (215, 78.2%), Military Medical Services (14, 5.1%), the United Nations for Relief and Work of Palestinian Refugees (UNRWA) (28, 10.2%), and from the private sector (18, 6.5%). A total sample of 275 nurses was interviewed, males were 148, (53.8%) and females were 127 (46.2%).

**Measures**

**Socio- demographic questionnaire**

The researcher prepared this questionnaire, which included; name, gender, marital status, work location, length of time working, and work characteristics.

**Nursing stress scale (NSS)**

Nursing stressors were measured using the Nursing Stress Scale (NSS). This scale consists of 34 items on a rating scale from 1 to 4, where 1 indicates never stressful and 4 indicates very frequently stressful. From 1-4, (1) = not stressful/, (2) = moderate stressful, (3)= extremely stressful and (4) = very extremely stressful. The Cronbach’s Alpha coefficient for the scale in the study of Gray-Toft and Anderson (1981) was 0.89. In the Abu AlRub study, the Cronbach’s Alpha coefficient for the whole scale was also 0.89. In this study the Cronbach’s Alpha coefficient for the whole scale was 0.91 [2,22].

**The Connor–Davidson resilience scale**

The Connor–Davidson Resilience Scale [23] consists of 25 statements (e.g., ‘I am able to adapt when changes occur’). Each is rated by respondents on the extent of agreement over the past month (0 = ‘not at all’ to 4 = ‘true nearly all of the time’). This scale has been used in various samples showing high reliability, convergent and discriminant validity in the general population. Internal consistency for the total score. The internal consistency of the scale was calculated using Chronbach’s alpha, and was high (α = 0.88). In this study the Cronbachs Alpha coefficient for the whole scale was 0.90. In this sample was also high (Cronbach’s α = 0.88).
Brief-COPE

The Brief COPE is a 28-item measure of strategies used by individuals to cope with problems and stress. The items measure 14 coping approaches that responders use, answered on a four-point Likert-type scale ranging from ‘not at all’ to ‘very much’. The Greek version of the Brief-COPE was developed using the method of front and back translation by two bilingual psychologists. Differences in translation were resolved through consultation. In this study the Cronbach’s Alpha coefficient for the whole scale was 0.85 [24].

Study procedure

For ethical issue, the study was presented to the approval committee in the Gaza Strip (Local Helsinki Ethical Committee) and was approved. Another letter of approval was granted from Human Resource Administration in MOH. Also the directors of the hospitals approved the study. An official letter obtained from each director of hospital from MOH and other directors of hospitals and clinics outside the Ministry of Health to facilitate data collection procedures. Each of participants was give written consent form to sign to participate in the study after explaining the study purpose and objectives. Data collection was carried out by the first author with help of colleagues working in the collecting site (MOH, UNRWA or private section). Data collection was done in May 2013.

Data analysis

Data entry and analysis were carried out using a statistical software SPSS version 20 (SPSS Inc. Chicago Ill, US). Frequency and percent were used to express quantitative data of types of job stressors, coping, and resilience. For continuous variables, means and standard deviations were reported. The associations between different continuous variables such as stressors, coping, and resilience were tested by Pearson correlation coefficient. Multiple linear regression analysis was conducted to control individual demographics (i.e., age, years of work experience, marital status, education level and monthly income) and examine the relationship among work stress, coping, and resilience. A 95% confidence interval is selected and a p-value smaller than 0.05 is considered significant.

Results

Socio demographic characteristic for study samples

The sample consisted of 275 nurses, 148 were males (53.8%) and 127 were females (46.2%). Age ranged from 20-60 years, mean age was 33.15 (SD=9.35). According marital status, 210 of nurses were married (76.4%); 59 were single (21.5%), 2 were widowed (0.7%) and 3 were separated (0.4%). According to level of education 130 had Baccalaureate degree (47.3%), 103 had two years diploma (37.5%), 31 had three years diploma (11.3%) and 11 had postgraduate education (4%). According to place of working 215 of nurses working at government (78.2%), 28 work at United Nations for Refugee Relief and Work Agency (UNRWA) (10.2%), 18 work at private sector (6.5%) and 14 work at Medical military services (5.1%). The number and percent of nurses according to professional, 121 of them were staff nurse 44, 111 were practical nurses (40.4%), 31 were head of departments (11.3%) and 12 were supervisors. (4.4%) (Table 1).

Table 1: Socio-demographic results of the study sample (N=275).

| Gender | No. | %   |
|--------|-----|-----|
| Male   | 148 | 53.8|
| Single | 59  | 21.5|

| Age: mean 33.15 y (SD=9.35) | No. | %   |
|-----------------------------|-----|-----|
| 20–25 y                     | 71  | 25.8|
| 26–30 y                     | 86  | 31.3|
| 31 and above y              | 118 | 42.9|

| Marital status | No. | %   |
|----------------|-----|-----|
| Married        | 210 | 76.4|
| Widowed        | 2   | 0.7 |
| Separate       | 3   | 1.1 |
| Divorced       | 1   | 0.4 |

| Nursing experience | No. | %   |
|--------------------|-----|-----|
| 1-5 y              | 117 | 42.5|
| 5-10 y             | 58  | 21.1|
| 10-15 y            | 38  | 13.8|
| 15-20 y            | 22  | 8.0 |
| More than 20 y     | 40  | 14.5|

| Education | No. | %   |
|-----------|-----|-----|
| Diploma   | 103 | 37.5|
| BSN       | 31  | 11.3|
| Bachelor’s degree | 130 | 47.3|
| Master’s degree   | 11  | 4   |

| Place of work | No. | %   |
|---------------|-----|-----|
| Governmental  | 215 | 78.2|
| UNRWA         | 28  | 10.2|
| Private       | 18  | 6.5 |
| Military Medical services | 14 | 5.1 |

| Position | No. | %   |
|----------|-----|-----|
| Practical Nurse (diploma) | 111 | 40.4|
| Nurse (RN, BA)      | 121 | 44  |
| Head nurse          | 31  | 11.3|
| Supervisor           | 12  | 4.4 |

Mean and standard deviations of job related stress

The mean score of participant job stress was 88.7 (SD=17.73), possible scores range from 40–136 points. Regarding the subscales of job related scale, mean death and dying sub scale was 18.61 (SD= 4.21), conflict with physicians mean was 13.27 (SD= 3.34), inadequate preparation mean was 7.85 (SD= 2.11), lack of support mean was 7.19 (SD= 2.25), conflict with other nurses mean was 13.68 (SD= 3.17), workload mean was 13.99 (SD= 3.58), and uncertainty concerning treatment of the patients was 14.11 (SD= 3.39).

Frequency of coping strategies

Nurses commonly said that they most of the time/ always used the following coping ways to overcome the job stress: find comfort in religious beliefs (80.6%), think about what steps to take (78%), come up with strategy about what to do about situation what to do (72.5%), and learn to live with situation (70.3%). While the least common coping way was use drugs to feel better (7.3%) and use drugs to get through (7%) (Table 3).

Mean and standard deviations of coping strategies

Our results showed that mean total coping was 66.48 (SD=8.78). As...
shown in Table 3, the highest coping strategies used were planning 6.01 (SD=1.47), religion 5.99. (SD=1.88), and self-blame 5.76 (SD=1.46). While the least used coping strategies were: substance use 2.47 (SD=1.10) and humor 3.69 (SD=1.36) (Table 4).

Resilience factors in Palestinian nurses

Nurses commonly said that they often true/true nearly all the time used the following items for resilience: things happen for a reason (81.3%), God is helping us (68.7%), and I take pride in my achievements (58%). While the least used items were: Under pressure, focus and think clearly (40.1%) and I can deal with whatever comes (38.9%).

Mean and standard deviations of resilience factor

Total resilience mean was 72.68 (SD=12.79), personal competence high standards, and tenacity 22.59 (SD=4.39), trust in one's instincts, tolerance of negative affect and strengthening effects 17.31 (SD=4.49), positive acceptance of change, and secure relationships 14.41(SD=2.64), control 8.36 (SD=1.86), spiritual 7.26 (SD=1.12) (Table 5).

Relationships among work stress, coping and resilience levels

A multiple linear regression analysis was conducted to find the relationship between individual demographic variables that simultaneously influence job stress (i.e., age, sex, years of work experience, marital status, education level) and then explored the relationships between job stress, coping and resilience. The result

| No. | Item | No effect/ Mild | Moderate | Severe/very severe |
|-----|------|-----------------|----------|--------------------|
| 1   | Performing procedures that patients experience as painful | 27.1       | 23.1   | 49.8 |
| 2   | Feeling helpless in the case of a patient who fails to improve | 11.7      | 20.1   | 68.3 |
| 3   | Listening or talking to a patient about his/her fails to improve | 33.5     | 36.9   | 29.6 |
| 4   | The death of a patient | 11.6       | 10.2   | 78.2 |
| 5   | The death of a patient with whom you developed a close relationship | 32.8     | 27.6   | 39.7 |
| 6   | Physician not being present when a patient dies | 8.8        | 15.3   | 75.9 |
| 7   | Watching a patient suffer | 15.7      | 18.2   | 66.2 |
| 8   | Criticism by a physician | 28.8      | 20.4   | 50.9 |
| 9   | Conflict with a physician | 19.3      | 23.6   | 57.1 |
| 10  | Fear of making a mistake in treating a patient | 6.9       | 19.3   | 73.8 |
| 11  | Disagreement concerning the treatment of a patient | 33.1      | 27.3   | 39.7 |
| 12  | Making a decision concerning a patient when the physician is unavailable | 17.5     | 16.7   | 65.6 |
| 13  | Being asked a question by a patient for which I do not have a satisfactory answer | 13.1      | 32     | 54.9 |
| 14  | Feeling inadequately prepared to help with the emotional needs of a patient | 10.9     | 18.2   | 70.9 |
| 15  | Feeling inadequately prepared to help with the emotional needs of a patient's family | 21.9     | 36.6   | 41.4 |
| 16  | Lack of an opportunity to talk openly with other unit personnel about problems on the unit | 31       | 26.5   | 42.6 |
| 17  | Lack of an opportunity to share experiences and feelings with other personnel on the unit feelings toward patients | 21.2     | 35.4   | 43.4 |
| 18  | Lack of an opportunity to express to other personnel on the unit my negative feelings toward patients | 17.1     | 31.6   | 50.5 |

Table 2: Type of job stressors reported by nurse (nurse stress scale).
showed no relationship between demographic variables such as age, sex, years of work and job stress (Table 6).

Relationship between job stressors and coping strategies

In order to find the relationship between job stressors and coping strategies, a series of multiple linear regression analysis was conducted in which the total coping was the dependent variable and each of the 34 stressors were entered as independent variables. The results indicated that fear of making a mistake in treating a patient and coping strategies were negatively correlated ($\beta= -0.15$, $p<0.001$). A physician ordering what appears to be inappropriate treatment for a patient and coping strategies were positively correlated ($\beta=0.14$, $p<0.02$) (Table 7).

Relationship between job stressors and resilience

Another series of multiple linear regression analysis was conducted in which the total resilience was the dependent variable and each of the 34 stressors was entered as independent variables. The results indicated that physician not being present when a patient dies ($\beta=-0.21$, $p<0.001$) and too many non-nursing tasks required, such as clerical work and resilience were and was negatively predicting resilience ($\beta=-0.16$, $p<0.01$). While, criticism by a physician ($\beta=0.21$, $p<0.001$) and having not enough time to complete all of nursing tasks were positively predicted resilience ($\beta=0.24$, $p<0.01$) (Table 8).

### Job stress

| Job stress                  | N  | Min. | Max. | Mean | SD |
|-----------------------------|----|------|------|------|----|
| Total job stress            | 275| 40   | 136  | 88.7 | 17.73 |
| Death and dying             | 275| 7    | 28   | 18.61| 4.21 |
| Conflict with physicians    | 275| 5    | 20   | 13.27| 3.34 |
| Inadequate preparation      | 275| 3    | 12   | 7.85 | 2.1 |
| Lack of support             | 275| 3    | 12   | 7.19 | 2.25 |
| Conflict with other nurses  | 275| 5    | 20   | 13.68| 3.17 |
| Work load                   | 275| 6    | 24   | 13.99| 3.58 |
| Uncertainty concerning treatment | 275| 5    | 20   | 14.11| 3.39 |

**Table 3**: Mean and standard deviations of job related stress.

### Coping strategies

| Coping strategies                  | N  | Min. | Max. | Mean | SD |
|------------------------------------|----|------|------|------|----|
| Total coping                       | 275| 38   | 94   | 66.48| 8.78 |
| Self-distraction                    | 275| 0    | 8    | 4.66 | 1.31 |
| Active coping                       | 275| 0    | 8    | 4.85 | 1.21 |
| Denial                             | 275| 0    | 8    | 3.99 | 1.37 |
| Substance use                      | 275| 0    | 8    | 2.47 | 1.1 |
| Use of emotional support           | 275| 0    | 8    | 4.83 | 1.55 |
| Use of instrumental support        | 275| 0    | 8    | 5.51 | 1.48 |
| Behavioural disengagement          | 275| 0    | 8    | 4.4  | 1.42 |
| Venting                            | 275| 0    | 8    | 4.74 | 1.24 |
| Positive reframing                 | 275| 0    | 8    | 4.55 | 1.52 |
| Planning                           | 275| 0    | 8    | 6.01 | 1.47 |
| Humour                             | 275| 0    | 8    | 3.69 | 1.36 |
| Acceptance                         | 275| 0    | 8    | 4.54 | 1.42 |
| Self-blame                         | 275| 0    | 8    | 5.76 | 1.46 |
| Religion                           | 272| 0    | 24   | 5.99 | 1.88 |

**Table 4**: Mean and standard deviations of coping strategies used by nurses.

### Resilience factors

| Resilience factors                  | N  | Min. | Max. | Mean | SD |
|-------------------------------------|----|------|------|------|----|
| 1. Total Resilience                 | 256| 15   | 104  | 72.68| 12.79 |
| 2. Personal competence              | 263| 6    | 32   | 22.59| 4.39 |
| 3. Trust in one's instincts         | 267| 3    | 28   | 17.31| 4.49 |
| 4. Positive acceptance              | 270| 2    | 20   | 14.41| 2.64 |
| 5. Control                          | 270| 0    | 12   | 8.36 | 1.86 |
| 6. Spiritual                        | 272| 2    | 8    | 7.26 | 1.12 |

**Table 5**: Mean and standard deviations of resilience factors in Palestinian nurses.

### Job stress

| Demographic variables | $B$  | SE  | Beta | $t$   | P-value |
|-----------------------|------|-----|------|-------|---------|
| (Constant)            | 122.6| 15.2|      |       |         |
| Age                   | 0.67 | 0.46| 0.21 | 1.45  | 0.15    |
| Sex                   | 5.97 | 4.16| 0.10 | 1.43  | 0.15    |
| Marital status        | -1.00| 4.36| -0.02| -0.23 | 0.82    |
| Nursing experience    | -0.48| 2.15| -0.02| -0.23 | 0.82    |
| Education             | -1.13| 2.95| -0.04| -0.38 | 0.70    |
| Place of work         | -2.16| 2.37| -0.06| -0.91 | 0.36    |
| Years of experience   | -2.82| 3.49| -0.14| -0.81 | 0.42    |
| Job place             | 0.78 | 3.88| 0.02 | 0.20  | 0.84    |

**Table 6**: Multiple regression coefficients of influence about job stress to demographic variables.
Discussion

This study was conducted to find the type of job stressors, coping strategies used to overcome such stressors, and resilience as outcome in relationship to other sociodemographic variables, coping and resilience. The study showed that 78.2% of Palestinian nurse said that the death of a patient was very severe/severely stressful, 75.9% physician not being present when a patient dies, 75.9% criticism by a supervisor, 73.8% fear of making a mistake in treating a patient, 72.5% inadequate information from a physician regarding the medical condition of a patient, 70.9% feeling inadequately prepared to help with the emotional needs of a patient. Others found that nurses had a number of sources of stress in their jobs, such as long work days, time pressure, sleep deprivation, high expectations from others and a low tolerance for error [25,26]. Our study findings were consistent with study of Jannati et al. [27] of Iranian nurses which showed that nurses mainly suffer from having less-skilled colleagues and personal lack of skill, relationship with colleagues, medical team, superiors, patients’ families and other departments, hardships of nursing, multiplicity of problems, working in shifts, workload, being responsive, social status of the profession, caregiving), facilities, physical conditions of workplace and welfare of the nurses and the kind of ward and job security, high responsibility and irrelevant duties. Pisanti et al. [28] in a study of Italian (N = 699) and Dutch (N = 873) nurses, showed that Italian nurses perceived their job characteristics, organizational conditions, and well-being as more unfavorable than their Dutch colleagues. Furthermore, our study was consistent with study of Acker [29], of mental health workers in New York State, reported that 56% of the workers experienced moderate to high levels of emotional exhaustion, and 73% experienced moderate to high levels of role stress. Similarly and consistently with this study results, Meyer et al. [30] in study of novice pediatric nurses at the start of the nurse residency program (baseline) and 3 months after to assess pre-existing and current stress exposure. During the first 3 months of bedside experience, 89.2% were exposed to a stressful event. Of these nurses, 65.8% experienced an event directly happening to them, 60.6% witnessed a stressful event, and 66.7% learned about a stressful event happening to someone close to them. During this time, a large percentage of nurses witnessed a number of particularly stressful life events such as a life-threatening illness or injury (34.5%), severe human suffering (26.7%), and unexpected death (13.4%). Our results showed that nurses commonly said that they most of the time/always used the following coping strategies to overcome the jobs stress: find comfort in religious beliefs, think about what steps to take, come up with strategy about what to do about situation what to do, and learn to live with situation. While the least common coping way was use drugs to feel better and use drugs to get through. Jathanna et al. [31] examined stress among nurses working in different units and their coping abilities in a super specialty hospital in Kerala. They found that majority (47 per cent) of the respondents rated spiritual coping as the major coping strategy they adapted to overcome stress. Forty per cent they have adapted positive appraisal for coping with the situation. As per the analysis least coping method adapted is substance use (3 per cent) and avoidance (5 per cent). The primary coping mode included praying or meditating and looking for something good in the situation. Many had resorted to healthier modes of coping like resorting to humour, seeking social support, positive appraisal and abstaining from using substances/drugs. Adriaenssens et al. [32] in a study examined the frequency of exposure to and the nature of traumatic events in Emergency Nurses, the percentage of nurses that report symptoms of PTSD, anxiety, depression, somatic complaints and fatigue at a sub-clinical level, and the contribution of traumatic events, coping and social support to PTSD symptoms, psychological distress, somatic complaints, fatigue and sleep disturbances in 248 Emergency Nurses, from 15 Flemish (Belgian) general hospitals. Emergency Nurses were found to be confronted frequently with work related traumatic events. Death or serious injury of a child/adolescent was perceived as the most traumatizing event. Emotional coping was related to an increase in all outcomes; avoidant coping was related to more somatic complaints; problem focused coping was related to a decrease in psychological distress and perceived fatigue. Social support from colleagues and supervisor (head nurse) was found to have a protective effect on the occurrence of PTSD symptoms. Our study findings were consistent with previous study of university students in the Gaza Strip which showed that the most frequent coping strategies were find comfort in religious beliefs, think about what steps to take, and learn to live with situation.

Resilience

Nurses commonly said that they often true/truly nearly all the time used the following items for resilience: things happen for a reason, God is helping us, and I take pride in my achievements. While the least used items were: Under pressure, focus and think clearly and I can deal with whatever comes.

According to a study involving palliative care nurses, qualities of resiliency include: strong commitment to the profession, having

### Table 7: Multiple regression coefficients of influence about job stress to coping.

| Model                                      | Non-standardized coefficients | Standardized coefficients | t     | P-value |
|--------------------------------------------|-------------------------------|---------------------------|-------|---------|
| (Constant)                                 |                               |                           |       |         |
| 66.84                                      | 2.01                          |                           | 33.32 | 0.001   |
| Fear of making a mistake in treating a patient | -1.26                        | -0.16                     | -2.46 | 0.01    |
| A physician ordering what appears to be inappropriate treatment for a patient | 1.16                          | 0.14                      | 2.27  | 0.02    |

### Table 8: Multiple regression coefficients of influence about job stress to resilience.

| Model                                      | Unstandardized Coefficients | Standardized Coefficients | t     | p-value |
|--------------------------------------------|-------------------------------|---------------------------|-------|---------|
| (Constant)                                 |                               |                           |       |         |
| 66.285                                     | 2.597                         |                           | 25.51 | 0       |
| Criticism by a physician                   | 2.312                         | 0.205                     | 3.10  | 0.002   |
| Physician not being present when a patient dies | -2.200                       | -0.64                     | -3.43 | 0.001   |
| Not enough time to complete all of my nursing tasks | 3.287                        | 0.248                     | 3.58  | 0.001   |
| Too many non-nursing tasks required, such as clerical work | -1.697                      | -0.189                    | -2.55 | 0.011   |
past personal experiences involving caregiving, the goal “to make a difference,” an awareness of mortality, an awareness of spirituality, the need to be in control, high job satisfaction, positive coping strategies, and an awareness of personal and professional boundaries [33]. Jackson et al. [34] found that nurses who participated in personal activities, rather than concentrating solely on their profession, were better able to foster physical, emotional, and spiritual development, and achieve work life balance. This applied especially to those with highly demanding careers, such as nursing in a study by Cameron and Brownie [35], resilience was examined in a group of long-term care nurses. It was found that clinical expertise, a sense of purpose in holistic care, a positive attitude, and a strong work-life balance are important determinants in resilience in that specific group of nurses. Zander et al. [20] examined stress, coping, and resilience among nurses working in pediatric oncology. Work in this area includes stressors such as grief, loss, ethical decision making, maintaining professional boundaries, and complex treatment regimens, in addition to the common stressors experienced by nurses. The study named 3 main themes relating to coping and resilience in pediatric oncology nursing. The themes were: coping factors (social, team, and organizational support, personal views, attitudes and circumstances, personal experience, and stressors), the coping process (transformational personal growth in dealing with stress), and overcoming negative circumstances (the process of learning to deal with stressors and apply them to their day-to-day work). Others in study of twenty-three female sex workers in Hong Kong reported negative feelings in response to financial burden, clients’ demands, threats to physical health, and stigma. Some female sex workers showed their resilience by being able to rationalize their role, believe their ability to make a change in life, and stay optimistic [36]. That study of 20 first-line nurse managers Korean working in six university hospitals showed resilience to be a process of ongoing development, whereby participants drew on personal and institutional resources and maintained increasingly objective views on dealing with issues and conflicts. The meaning of resilience as perceived by first-line nurse managers included “positive thinking”, “flexibility”, “assuming responsibility”, and “separating work and life. Such findings were consistent with study of Palestinians in the Gaza Strip which showed that Palestinians used religious factors in facing the stress and trauma. 98% said God help, 85.1% said they are proud of their achievements, and 71.55% said they had strong sense of purpose [37,38].

Conclusions and Recommendations

Retaining a healthy, better coping and resilient nursing in Gaza Strip is an essential need for healthcare system in Palestine. The death of a patient, physician not being present when a patient dies, criticism by a supervisor, and fear of making a mistake in treating a patient was very stressful. The results of this study highlight the need to empower the role of the nurse educators, managers and administrators to find ways to make nursing workplace more pleasant and less stressful, especially to the nurses in their initial years of work. The findings of the study will assist human resource managers of the current study setting to determine coping strategies that might help in reducing amount of stress experienced by nurses in their day to day challenging and demanding nursing roles.

More research on how to improve coping and resilience in nurses is needed. A great starting place would be to interview nurses who have remained in nursing for several years to gather information on the personal journeys of these nurses and how resilience has played a factor in longevity. This would lead researchers to examine strategies for resilience building in nurses.

References

1. Abu- Al rub RF (2004) Job stress, job performance, and social support among hospital nurses. Nurs Scholarsh 36: 73-78.
2. Abu- Al rub RF, Omari FH, Abu Al Rub AF (2009) The moderating effect of the social support on the stress-satisfaction relationship among Jordanian hospital nurses. J Nurs Manag 17: 870–878.
3. Jodah Y (2003) Job stress sources among Palestinian nurses working in Northern West Bank District Hospitals. Unpublished thesis submitted to An-Najah National University.
4. Knezevic B, Milosevic M, Golubic R, Belosevic L, Russo A, et al. (2011) Work-related stress and work ability among Croatian university hospital midwives. Midwifery 27: 146-153.
5. Hayes B, Douglas C, Bonner A (2015) Work environment, job satisfaction, stress and burnout among haemodialysis nurses. J Nurs Manag 23: 588–598.
6. Lin T, Lin H, Cheng S, Wu L, Ou-Yang M (2016) Work stress, occupational burnout and depression levels: a clinical study of paediatric intensive care unit nurses in Taiwan. J Clin Nurs 25: 1120–1130.
7. Lazarus RS, Folkman S (1984) Stress, appraisal, and coping.
8. Folkman S, Lazarus RS (1980) An analysis of coping in a middle-aged community sample. J Health Soc Behav 2: 219–239.
9. Niijima E, Okamura H, Kohama A, Nagao M (2008) A survey of nurses who experienced trauma in the workplace: Influence of coping strategies on traumatic stress. Stress and Health 25: 3-9.
10. Lu D, Sun N, Hong S, Fan Y, Kong F, et al. (2015) Occupational stress and coping strategies among emergency department nurses of China. Arch Psychiatr Nurs 29: 208-212.
11. Garmezy N, Masten AS, Tellegen A (1984) The study of stress and competence in children: a building block for developmental psychopathology. Child Dev 55: 97–111.
12. Gillespie BM, Chaboyer W, Wallis M (2007) Development of a theoretically derived model of resilience through concept analysis. Contemporary Nurse 25: 124–135.
13. Walsh (2003) Family resilience: A framework for clinical practice. Family Process Journal 42: 1-18.
14. Griffith D (2007) A new year’s resolution for your emotional health. Journal of American Psychological Association 22: 216-222.
15. Campbell-Silis L, Cohen SL, Stein MB (2006) Relationship of resilience to personality, coping and psychiatric symptoms in young adults. J Behav Res The 44: 585-99.
16. Kruger L, Prinsloo H (2008) The appraisal and enhancement of resilience modalities. South African Journal of Education 28: 241–259.
17. Laditka SB, Laditka JN, Cornman CB, Davis CB, Richter JV (2009) Resilience and challenges among staff of gulf coast nursing homes sheltering frail evacuees following Hurricane Katrina, 2005: implications for planning and training. Prehosp Disaster Med 24: 54-62.
18. Carvalho MVA, Calvo FB, Martin HL, Campos RF, Castillo CI (2006) Resilience and the burnout-engagement model in formal caregivers of the elderly. J Employ Couns 18: 791-796.
19. Matos PS, Neusohotz LA, Griffin MTQ, Fitzpatrick JJ (2010) An exploratory study of resilience and job satisfaction among psychiatric nurses working in inpatient units. Int J Ment Health Nurs 19: 307–312.
20. Zander M, Hutton A, King L (2010) Coping and resilience factors in pediatric oncology nurses. J Pediatr Oncol Nurs 27: 94-108.
21. Ministry of Health (2009) Annual Report. Palestinian Authority, Gaza.
22. Gray-Toft P, Anderson JG (1981) Nursing stress and complex treatment regimens, in addition to the common stressors experienced by nurses. The study named 3 main themes relating to coping and resilience in pediatric oncology nursing. The themes were: coping factors (social, team, and organizational support, personal views, attitudes and circumstances, personal experience, and stressors), the coping process (transformational personal growth in dealing with stress), and overcoming negative circumstances (the process of learning to deal with stressors and apply them to their day-to-day work). Others in study of twenty-three female sex workers in Hong Kong reported negative feelings in response to financial burden, clients’ demands, threats to physical health, and stigma. Some female sex workers showed their resilience by being able to rationalize their role, believe their ability to make a change in life, and stay optimistic [36]. That study of 20 first-line nurse managers Korean working in six university hospitals showed resilience to be a process of ongoing development, whereby participants drew on personal and institutional resources and maintained increasingly objective views on dealing with issues and conflicts. The meaning of resilience as perceived by first-line nurse managers included “positive thinking”, “flexibility”, “assuming responsibility”, and “separating work and life. Such findings were consistent with study of Palestinians in the Gaza Strip which showed that Palestinians used religious factors in facing the stress and trauma. 98% said God help, 85.1% said they are proud of their achievements, and 71.55% said they had strong sense of purpose [37,38].

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public health nurses. J Nurs Res 10: 253–260.

26. Rutledge T, Stucky E, Dollarhide A, Shively M, Jain S, et al. (2009) A real-time assessment of work stress in physicians and nurses. Health Psychol 28: 194–200.

27. Jannati Y, Mohammadi R, Seyedfate N (2011) Iranian clinical nurses’ coping strategies for job stress. J Occup Health 53: 123–129.

28. Pisanti R, van der Doef M, Maes S, Lazzari D, Bertini M (2011) Job characteristics, organizational conditions, and distress/well-being among Italian and Dutch nurses: A cross-national comparison. Int J Nurs Stud 48: 829–837.

29. Acker GM (2012) Burnout among mental health care providers. J Soc Work 12: 475–490.

30. Meyer RA, Li A, Klaristenfeld J, Gold JI (2015) Pediatric novice nurses: Examining compassion fatigue as a mediator between stress exposure and compassion satisfaction, burnout, and job satisfaction. J Pediatr Nurs 30: 174–183.

31. Jathanna R Latha KS, Prabhu S (2012) Occupational stress and coping among nurses in a super specialty hospital. J Health Manag 14: 467–479.

32. Adriaenssens J, de Gucht V, Maes S (2012) The impact of traumatic events on emergency room nurses: Findings from a questionnaire survey. Int J Nurs Stud 49: 1411–1422.

33. Ablett JR, Jones RSP (2007) Resilience and well-being in palliative care staff: A qualitative study of hospice nurses’ experience of work. Psycho-Oncology 16: 733-740.

34. Jackson D, Firtko A, Edenborough M (2007) Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: A literature review. J Adv Nurs 60: 1-9.

35. Cameron F, Brownie S (2010) Enhancing resilience in registered aged care nurses. Australian Journal of Ageing 29: 66-71.

36. Yuen W, Wong W, Holroyd E, Tang K (2014) Resilience in work-related stress among female sex workers in Hong Kong. Qual Health Res 24: 1232–1241.

37. Al Arjani S, Thabet AA, Vostanis P (2008) Coping strategies of traumatized children lost their father in the current conflict. Arab Psynet Journal 5: 226-232.

38. Etsuko NE, Hitoshi OH, Akitsugu KA, Last MN (2008) Survey of nurses who experienced trauma in the workplace: Influence of coping strategies on traumatic stress. Stress and Health 25: 3-9.