Determining the Influence of Life Change Events on the Mental Health Nurses; A Case of Saudi Arabia

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Abstract

Background and Objectives: Few researches are found concerning the relationship of life-altering events and psychological health among mental health nurses in Saudi Arabia. Thereby, the study examines the influence of life-altering events on Saudi mental health of nurses.

Methods: A descriptive correlational research design was used where mental health nurses from three different hospitals were recruited using a random sampling method. Data was collected using Qandil's Arabic Modified Life Events Questionnaire. Pearson correlation evaluated the relationship between variables.

Results: Major change in eating habits was responsible for expressing both depression and stress. Inclusion of new members, leaving loved ones due to several causes, spouses' death, and substantial changes in the family members' health status are all significantly related to depression. Change occurred in the parents' marital status due to divorce or death also became the cause of depression. This is also same when person felt burden in taking care of the sick family member. Going on vacations and short trips, change in the meetings of family and social activities may help in relieving depression.

Conclusion: The findings show that big personal achievements lead to negative relationship with depression. Stress-related factors are also a personal problem, which must be intervened with the enhancement of the working conditions.

Keywords: anxiety, depression, life change events, mental health nurses, Saudi Arabia, stress

1. Introduction

It is the nature of human beings to avoid anxiety and depression as it induces negativity among them. Despite all the major advancements, anxiety and depression cannot be eradicated from the lives of individuals, which affects the mental health of the overall society (Taghinejad, 2014). There is so much pressure and 26 increasing stressors of anxiety, stress and depression which upset many areas of life. Many people become stressful on daily basis, and continued stress result in threatening mental and physical health. The nature of a job is also responsible for stress, in an environment where there is a need of human communication and contacts, the stress level in such jobs are most prevalent such as the profession of nursing works on the basis of human relation and communication (Khodadadi, 2016). The nursing profession affects both psychological and physical well-being of an individual. Empirical data supported that conditions such as long working hours and shift duties play a major part in effecting mental and physical health (Tsai & Liu, 2012).

Earlier findings also indicated that the concerns of mental health proved to be intermediate among the nurses of India and Pakistan and lowest in the nurses of Philippine/Indonesia (Zaghloul, Saquib, AlMazrou, & Saquib, 2019). According to the study of Grenglass and Burke (2016), mental health of these nurses seemed to be unstable which would cause frustration and inability to perform well in their job. Life changing events are stressful and they vary according to their nature and severity which include death of a beloved person, money loss, social prestige loss, changing residence, marriage, etc. Life changing events result in depression, anxiety, and stress that can influence nurses and change their life in every aspect. According to the study of Maharaj, Lees, and Lal (2019), it is essential for the system of future health to examine depression, anxiety, and stress levels among nurses and should recognize

its forecasters. A debate continues to emerge concerning the substance use disorder and mental health, given the increased burden on health and unmet needs in the developing and developed countries.

Research priorities, context-driven guiding principles, intersectoral as well as integrative approaches are recommended that would help in advancing the knowledge of mental health needs at the same time there should be promotion of health equity agenda. Impact of scientific enquiry, reach and quality must be extended (Baingana et al., 2015). The previous studies associated depression, anxiety and stress with job satisfaction among the nurses (AbuRuz, 2014; Poursadeghiyan, 2016) and less studies have been conducted regarding mental health conditions of nurses in relation with life changing events.

Scarcity of research is found concerning the relationship of the life altering events and psychological health among nurses of mental health in Saudi Arabia. Hence, this study intends to examine the impact of the changing events on mental health of nurse. This research is likely to contribute in literature base and more understanding will be achieved which would result in decreasing the psychological reactions which are experienced by these nurses. Further, this research will also help nurse researchers, organizations of nursing and mental health care, and decision makers as they would be able to understand the causes behind all of these problems and could make policies and strategic plans accordingly.

2. Literature Review

The life changing event acts as an indicator towards psychological reactions which include depression, anxiety and stress. Life events or some circumstances arouse normal or psychological reactions. Such reactions prove to be dangerous at times as they can enhance the person's vulnerability to disease. Life changing events (LCEs) can be responsible in changing the status and perceptions towards the dimensions of well-being of an individual. In the context of this study, the life changing events (LCEs) are the ones which have the influence on the psychological status of the Saudi mental health nurses in terms of depression, anxiety and stress (DAS).

As stated by AbuRuz (2014), there is a general perception that health care providers are negatively affected by the stress. As the profession of nursing is changing over the years which causes stress in nurses to increase. This stress is the result of internal and external sources. Job satisfaction is decreased by the stress in nurses which result in negative consequences. Findings revealed that situations like workload and death of patients and their families were the cause of stress in Jordanian nurses. Job satisfaction was significantly and negatively related to stress in Jordanian as well as Saudi Arabian nurses. Marie et al. (2016) advocate to enhance the healthcare quality and availability for ensuring mental health care. The study showed that Palestine's healthcare sector needs to devise a policy for meeting the service needs of the patients and professionals.

It is emphasized that raising awareness of mental health is essential, along with its integration with other areas of healthcare. Al-Zayyat and Al-Gamal (2014) showed that increasing stress was experienced by nursing students in clinical practice, particularly in the domain of psychiatric/mental health nursing (PMHN). This study used a descriptive, longitudinal design. The results indicated that the highest reported stressor types were patients' care, stress linked to teachers and nursing staff, from assignment and workload at both times. Problem-solving was the most used coping strategy at the time of data collection. Alenezi (2017) showed the most common problem among the professionals of mental health is burnout, mainly for nurses' that are part of mental health services. It showed that burnout prevention program brought significant reduction and proved to be effective after the one month of its intervention.

Ghazwin et al. (2016) studied that Iranian nurses were dissatisfied or extremely dissatisfied with their lives. According to the study of Vasconcelos et al. (2016), the complexities of mental related problems need to be understood by the occupational nurses, and they should be offered adequate mental health care. All these factors are responsible for increasing the mental health risk of nursing professionals as managers neglect the protective measures and care towards them, at both public and private hospitals. As stated by Sokratous (2013), numerous symptoms of depression prevail among Cypriot university students. It showed that a strong relationship exists with stressful life events and university students, underlining the integration of the psychological empowerment strategies to assist institutional counseling services towards students. Almalki's (2012) study, in the Jazan region, on nurses in the primary health care institutes showed that majority were not satisfied with their work life.

Subih (2011) explored stress among the nurses of Jordan. Findings revealed that stress is significantly higher as compared to reported levels in the literature. Those nurses had the highest stress among participants who were in the training hospitals. Significant stress level was reported in pediatric nurses. Those nurses which were working in the training hospitals secured higher scores which are statistically insignificant. High rates of anxiety and depression have been encountered among medical students as compared to others. According to Ibrahim et al.

(2013), the main predictors were academic problem and major life events.

3. Methodology

3.1 Research Design

This study used a descriptive correlational research design which helped in determining the relation between LCEs and DAS. The study was conducted in three major health hospitals of Saudi Arabia. Each hospital was represented by Hospital A, B, and C to keep their privacy intact. A represented Al Amal Complex for Mental Health in Riyadh, while B represented Al Amal Complex for Mental Health in Al Madinah Al Monawarah. Lastly, C refers to Mental Health Hospital in Al Taif.

3.2 Sampling

The minimum sample size required was based on the G Power Analysis calculation given 95% confidence interval, 5% confidence level, and 1100 population size. Initially, 825 questionnaires were 113 distributed, but 500 questionnaires were completely received. Therefore, 500 was considered as the final sample for this study. Nurses who have working experience of more than one year, hold Saudi nationality, and registered in Commission of Health Specialties were included in the study.

3.3 Procedure

The questionnaires were distributed among the nurses of Saudi mental health and the answered questionnaires were returned in sealed envelopes for analysis. The questionnaire comprised of three parts. Part 1 included demographic detail such as gender, age, marital status, and work experience. Part 2 was Qandil's (2012) Arabic Modified Life Events Questionnaire (LEQ) which consisted of experienced events for the last year. This LEQ had 79 items, three open-ended questions for adding more stressful events of recent life. The questionnaire reliability has been established in the previous studies which depicts it's range from 0.78 to 0.87 (Qandil, 2012). This instrument lied in the public domain and was not copyrighted. The items consisted of situations which were 124 arising from family, occupational, personal, and financial events.

The Jordanian nurses may not experience all the events as described in the questionnaire. These life events were categorized into two, events that present the universal human experience, such as births, marriages, and diseases, whereas, events that change due to social as well as cultural environments (Dohrenwend et al., 1978). Inclusion of all the events is advised to determine the stressful life events when these are relevant, appropriate as well as sufficient to instill a change in the usual activities. Given this, the two characterizations were included. These used LEQ questionnaires based on a 7-point Likert scale ranging from -3 showing significant negative effect to +3, showing a significant positive effect, where no effect is shown by zero.

Part 3 was the Arabic version of Depression, Anxiety, and stress scale (DASS 21), including 21 items that signify depression, anxiety, and stress. Each area consisted of seven items. The items were based on four responses ranging from 0 (Did not apply to me) to 3 (applied most of the time to me). The validity of the DASS 21 is established in the study of Tran, Tran, and Fisher (2013), depicting the Cronbach alpha value ranging from 0.70 to 0.88, showing high internal consistency.

3.4 Ethical Consideration

Approval was obtained from Deanship of Graduate Studies in the university of King Saud, Institutional Review Board (IRB) and research and study administration in health ministry in Kingdom of Saudi Arabia before distributing the questionnaires. The identity of respondents was kept confidential and the participation in survey was voluntary. An informed consent was also provided to the participants.

3.5 Statistical Analysis

The data was analyzed using IBM SPSS software (SPSS Inc., Chicago, Ill., USA) Version 20.0. It was analyzed descriptively and frequencies, percentages, and mean were calculated to examine the responses relating to profile, life-changing events, and psychological status. The relation between variables was observed using Pearson's correlation. For reporting the results of statistical significance, the p-value of less than 0.05 was used.

4. Results

According to Table 1, majority of the participants were male (55.6%) whereas females were 44.4%. In regard to age, 63.6% belonged to the age group between 26 to 34 years, 22.2% were 35 to 44 years old, 3.8% participants were above 45 years, 10.4% participants were less than 25 years of age. In terms of marital status, 63.2% were married, 29.8% were single, whereas divorced and widow were 7%. Further, 32.6% possessed working experience of 6 to 10 years, 27% had experience of 11 to 14 years, less than or equal to 5 years had participation of 26.4% and

14% participants had more than 14 years of working experience.

Table 1. Study Participants Characteristics (n= 500)

Characteristics		f (%)
Age groups (in years)		
	<25	52(10.4)
	26-29	164(32.8)
	30-34	154(30.8)
	35-39	78(15.6)
	40-44	33(6.6)
	>45	19(3.8)
Gender		
	Male	278(55.6)
	Female	222(44.4)
Marital Status		
	Single	149(29.8)
	Married	316(63.2)
	Divorced & Widow	35(7.0)
Experience (in years)		
	<5	132(26.4)
	6-10	163(32.6)
	11-14	135(27.0)
	More than 14	70(14.0)

In Table 2, the life time's scores were divided into categories namely, no effect, bad effect, and good effect. To distribute the categories of all the events of life time, they were compared in terms of levels of depression, anxiety and stress for study subjects so that association between these two variables could be observed. According to the results, major change in eating habits were responsible in expressing both depression and stress. In giving response to an overwhelming emotional condition, people eat more or less. Health-related life events have no relationship with anxiety levels.

Table 2. Relationship of health-related life events to depression, anxiety, and stress

Variables	Pearson P-value	Remarks
Depression		
Experienced severe disease or exposure to physical injury	-0.07 (0.15)	Not significant
Major change in eating habits	-.145** (0.00)	Significant
Major change in sleeping pattern	-0.05 (0.24)	Not significant
Significant changes occurred in recreational activities or its time specified	-0.05 (0.26)	Not significant
Went through a severe dental treatment	-0.09 (0.06)	Not significant
Gave Birth (current or previous)	-0.06 (0.20	Not significant
Miscarriage or abortion	0.02 (0.68)	Not significant
Difficulty getting pregnant	0.01 (0.76)	Not significant

Anxiety

Experienced severe disease or exposure to physical injury	-0.03 (0.44)	Not significant
Major change in eating habits	-0.08 (0.08)	Not significant
Major change in sleeping pattern	-0.03 (0.47)	Not significant
Significant changes occurred in recreational activities or its time specified	0.00 (0.19)	Not significant
Went through a severe dental treatment	-0.06 (0.97)	Not significant
Gave Birth (current or previous)	-0.03 (0.44)	Not significant
Miscarriage or abortion	0.01 (0.84)	Not significant
Difficulty getting pregnant	-0.03 (0.47)	Not significant

Stress

Experienced severe disease or exposure to physical injury	0.01 (0.91)	Not significant
Major change in eating habits	-.102* (0.02)	Significant
Major change in sleeping pattern	-0.07 (0.10)	Not significant
Significant changes occurred in recreational activities or its time specified	-0.04 (0.40)	Not significant
Went through a severe dental treatment	0.00 (0.94)	Not significant
Gave Birth (current or previous)	-0.08 (0.10)	Not significant
Miscarriage or abortion	0.01 (0.89)	Not significant
Difficulty getting pregnant	-0.02 (0.60)	Not significant

Table 3 shows the association between depression and life events involving family members, relatives and friends. Inclusion of new members, leaving loved ones due to several causes, spouses' death, and substantial changes in family members' health status are all significantly related with depression. Change occur in the parents' marital status due to divorce or death also became the cause of depression. This is also the same when person was burdened for looking after the ill family member. A significant relationship exists between anxiety and life events like inclusion of a family member, substantial changes in loved ones' health status or behavior, death of a spouse, change occur in the parents' marital status, and increased burdens because of taking care of sick members of family. Stress has a significant relationship with life changing events which include major change taking place in the health status of loved ones, spouses' death, and burdened because of looking after the ill family member.

Table 3. Relationship of life events involving family members, friends, and relatives to depression, anxiety, and stress

Variables	Pearson P-value	Remarks
Depression		
A new member entry into the family (due to birth, or shift of a relative to stay with a family etc.)	-.152** (0.001)	Significant
Move or leave of a member of the family (as a result of marriage, university studying, or other causes.	-.091* (0.042)	Significant
Substantial modification in the family member health, friends or relative's status as well as behavior (because of disease, accidental drug abuse, or behavioral difficulties and more.	-.183** (0.000)	Significant
Death of spouse	-.109* (0.015)	Significant
Death of a child	-0.065 (0.149)	Not Significant
Death of family member or close friend	-0.068 (0.129)	Not Significant
Parents marital status change (divorced or widowed)	-.092* (0.040)	Significant
Burdened as a result of looking after the ill family member	-.121** (0.007)	Significant

Anxiety

A new member entry into the family (due to birth, or shift of a relative to stay with a family etc.)	-.169** (0.000)	Significant
Move or leave of a member of the family (as a result of marriage, university studying, or other causes.	-0.069 (0.124)	Not Significant
Substantial modification in the family member health, friends or relative's status as well as behavior (because of disease, accidental drug abuse, or behavioral difficulties and more.	-.114* (0.011)	Significant
Death of spouse	-.099* (0.027)	Significant
Death of a child	-0.068 (0.130)	Not Significant
Family member or close friends' death	-0.027 (0.548)	Not Significant
Parents marital status change (divorced or widowed)	-.092* (0.041)	Significant
Burdened as a result of looking after the ill family member	-.102* (0.022)	Significant

Stress

A new member entry into the family (due to birth, or shift of a relative to stay with a family etc.)	-0.083 (0.065)	Not Significant
Move or leave of a member of the family (as a result of marriage, university studying, or other causes.	-0.052 (0.244)	Not Significant
Substantial modification in the family member health, friends or relative's status as well as behavior (because of disease, accidental drug abuse, or behavioral difficulties and more.	-.111* (0.013)	Significant
Death of spouse	-.096* (0.032)	Significant
Death of a child	-0.076 (0.089)	Not Significant
Family member or close friends' death	-0.080 (0.072)	Not Significant
Parents marital status change (divorced or widowed)	-0. 076 (0.089)	Not Significant
Burdened as a result of looking after the ill family member	-.148** (0.001)	Significant

Table 4 indicates that big accomplishments are negatively related with depression. Individual celebrates these life events. Taking important decisions and changes in personal habits also have significant association with depression. Going on vacations and short trips, change in the meetings of family and social activities may help in relieving depression. Levels of stress and anxiety both can be reduced by these life events.

Table 4. Relationship of life events pertaining to personal and social matters to depression, anxiety, and stress

Variables	Pearson P-Value	Remarks
Depression		
Big personal accomplishment (academic, professional, financial, family and more)	-.295** (0.000)	Significant
Deciding a significant decision concerning the future	-.309** (0.000)	Significant
Personal habits change concerning clothing hobbies, lifestyle, …etc.)	-.236** (0.000)	Significant
Change in your religious beliefs	-0.012 (0.796)	Not Significant
Change in your political beliefs	-0.038 (0.402)	Not Significant
Loss or damage in your personal properties	-0.064 (0.150)	Not Significant
Took a vacation	-.269** (0.000)	Significant
Took a trip other than a vacation	-.223** (0.000)	Significant
Change in family meetings (family get together)	-.155** (0.000)	Significant

Social activities change (for instance club cinema, or visits)	-.166** (0.000)	Significant
Have new friends	-.274** (0.000)	Significant
Terminate relations with a friend	-0.006 (0.896)	Not Significant
Anxiety		
Big personal accomplishment (academic, professional, financial, family and more)	-.254** (0.000)	Significant
Deciding a significant decision concerning the future	-.237** (0.000)	Significant
Personal habits change concerning clothing hobbies, lifestyle, …etc.)	-.135** (0.003)	Significant
Change in your religious beliefs	0.034 (0.452)	Not Significant
Change in your political beliefs	-0.009 (0.833)	Not Significant
Loss or damage in your personal properties	0.040 (0.377)	Not Significant
Took a vacation	-.263** (0.000)	Significant
Took a trip other than a vacation	-.225** (0.000)	Significant
Change in family meetings (family get together)	-.120** (0.007)	Significant
Social activities change (for instance club cinema, or visits)	-.127** (0.004)	Significant
Have new friends	-.252** (0.000)	Significant
Terminate relations with a friend	-0.021 (0.633)	Not Significant
Stress		
Big personal accomplishment (academic, professional, financial, family and more)	-.199** (0.000)	Significant
Deciding a significant decision concerning the future	-.215** (0.000)	Significant
Personal habits change concerning clothing hobbies, lifestyle, …etc.)	-.145** (0.001)	Significant
Change in your religious beliefs	0.030 (0.497)	Not Significant
Change in your political beliefs	0.026 (0.565)	Not Significant
Loss or damage in your personal properties	-0.087 (0.052)	Not Significant
Took a vacation	-.177** (0.000)	Significant
Took a trip other than a vacation	-.129** (0.004)	Significant
Change in family meetings (family get together)	-.144** (0.001)	Significant
Social activities change (for instance club cinema, or visits)	-.192** (0.000)	Significant
Have new friends	-.155** (0.000)	Significant
Terminate relations with a friend	-0.067 (0.137)	Not Significant

The big changes in financial resources have negative relation with depression, anxiety, and stress. The same is the case with appliances' and home equipment's purchases and also mortgage loan or major purchases. But only stress is insignificantly related with the life changing event in terms of mortgage, loan or major purchases.

Table 5. Relationship of financial-related life events to depression, anxiety, and stress

Variables	Pearson P-Value	Remarks
Depression		
Big change in financial resources (increase or decrease in your income).	-.224** (0.00)	Significant
Made a moderate purchase, such as TV, car, freezer, etc.	-.190** (0.00)	Significant
Made a substantial purchase or mortgage for instance business property and home, etc.	-.118** (0.01)	Significant
Anxiety		
Big change in financial resources (increase or decrease in your income).	-.202** (0.00)	Significant
Made a moderate purchase, such as TV, car, freezer, etc.	-.164** (0.00)	Significant
Made a substantial purchase or mortgage for instance business property and home, etc.	-.096* (0.03)	Significant
Stress		
Big change in financial resources (increase or decrease in your income).	-.179** (0.00)	Significant
Made a moderate purchase, such as TV, car, freezer, etc.	-.092* (0.04)	Significant
Made a substantial purchase or mortgage for instance business property and home, etc.	-0.03 (0.52)	Not significant

5. Discussion

The study has determined the impact of life changing events (anxiety, depression, and stress) on nurses' mental health. One of the primary outcomes of the study include that stress and depression significantly made changes in eating habits of mental health nurses. This finding implies that nurses either eat more or less due to an overwhelming emotional situation. Furthermore, bad eating habits are likely to influence mental health nurses and can lead to stress and depression. This finding has been supported by Almajwal (2016) who found that stress and changes in eating patterns are associated by modifications in the physiologic responses of the body whereas the mesolimbic dopaminergic system and other brain regions are affected by chronic stress involved in motivation or stress. Overall, these effects may synergistically lead to food preference, seeking and desiring of hyper-palatable foods, and reward sensitivity. Likewise, Li et al. (2017) have claimed an association between depression and dietary patterns. A decreased risk of depression is related with a healthy dietary pattern. The study has added insights in the role of dietary patterns to prevent and manage the depression. The job nature of nurses is demanding and; therefore, eating patterns might be compromised, specifically for the Saudi mental health nurses. The working conditions and situations brought by workload influence the inadequate food intake based on regularity components.

The results of the study also show a substantial relationship between life events and depression with respect to relatives, family members, and friends. This finding implies that depression may lead to include new members, make changes in the health status of family members, the death of one's spouse, and leaving children and significant loved ones. This finding is supported by Nia (2016) who found that death of someone closed to the nurses can be a stress-giving factor. One of the highest rank factors to occupational stress is the death of parents or even friends. Similarly, Zaki, El-sayed and Ibrahim (2016) have argued that Saudi nurses dealing with illnesses and death is one of the predictors that can lead to stress. Depression can be caused due to the changes in marital status of parents either due to death or divorce. This is similar to circumstances where increased burden is experienced to take care of sick family members. These life events are associated to increased levels of stress and anxiety. A major change among Saudi mental health nurses can be brought by losing source of strength and support like a child, loved ones or spouse, which predispose them to anxiety, stress, and depression.

The findings of this study have shown that big personal achievements lead to negative relationship with depression. Stress-related factors are also a personal problem, which must be intervened with the enhancement of the working conditions. According to Johnson et al. (2018), the relationship of highly stressful events and mental wellbeing have been reported, which requires stress reducing interventions. The mental health nurses are working with patients with mental illnesses, where social relationship is 218 distinctive and limited. Stress and depression are strong predictors among psychiatric nurses. According to Elsayed, Hasan, and Musleh (2018), the stress is particularly high among psychiatric nurses who work in locked units and thus, perceive nursing job difficult.

The finding implies that major changes in financial resources are adversely associated to stress, anxiety, and depression. Precisely, all aspects in life events were observed as stimulus to stress, anxiety, and depression among

Saudi mental health nurses. These results added knowledge among administrators and policymakers. The findings will serve as a foundation to identify promotion of psychological wellbeing and support strategies among Saudi nurses' working in mental health facilities.

6. Conclusion

The study has found a major prevalence of depression, anxiety, and stress as life changing events on Saudi mental health nurses. Family member or close friends' death is considered as one of the most stressful life events. However, taking a vacation was considered as one of the extremely positive effects on mental health nurses. Improvements in the clinical environment are suggested as this can promote safety and lowers sources of stress predicted by the working environment. Social and emotional support should be considered using recreational activities and follow-ups. This study is seen as beneficial for the nurse administrators to initiate depression-anxiety-stress reduction techniques as these were proven prevalent among Saudi nurses in this study. The study also implies that nurse administrators should always be aware about the rules, regulations, and rights of nurses that enhances their health status.

Competing Interests Statement

The authors declare that there are no competing or potential conflicts of interest.

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