Effect of nursing intervention on stress and psychological wellbeing among university nursing students


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Abstract: Stress is a popular problem that affects nursing undergraduates and has a negative impact on their physical, social and psychological wellbeing. Aim of the study was to evaluate the effect of nursing intervention on stress and psychological wellbeing among university nursing students. A quasi experimental research design two group (study and control group pre/posttest) was used to achieve the aim of the study. The study was carried out at Faculty of Nursing, Menoufia University. A purposive sample of (n=100 students) selected from first year nursing students at the Faculty of nursing who have scores of 64 or less to 106 on psychological wellbeing scale and have scores of 34 - 66 on student nurse stress index. Three tools were used for data collection (1): A structured interview questionnaire which includes socio-demographic characteristics of nursing students. (2): Student nurse stress index. (3): Psychological wellbeing scale. The collected data were analyzed by using SPSS (Statistical Package for Social Sciences) version 20. Student's t-test, one way ANOVA (F-test) and paired T-test were used for parametric data. Pearson's Correlation analysis was used to show strength and direction of association between two quantitative variables. Results: There was a statistically significant reduction on the level of stress and improvement on psychological wellbeing level in study group after implementing nursing intervention than control group. Conclusion: The nursing intervention has a positive effect on reducing stress level and improving psychological wellbeing level among nursing students. Recommendation: Generalize the application of nursing intervention program to all nursing students to reduce their stress and improve their psychological wellbeing.

Keywords: Nursing intervention, stress, psychological wellbeing, university nursing students.

1. INTRODUCTION

"Nursing students experience higher levels of academic stress than those of other disciplines as they have to adapt to various clinical settings for practice" [1]. "Academic stress leads to psychological distress and has detrimental effects on well-being"[2]. "Psychological well-being is a phenomenon that is important for university students in order to successfully adapt to university life" [3]."It contributes to a student successfully adapting to their new environment, decreases their chances of dropping out, and is paramount to students overcoming the stress consequential of attending university"[4].

"The importance of studying the stressors in nursing students lies in the major effects on cognitive performance and health, i.e., the development of mental disorders such as depression, anxiety, eating disorder, sleep disorder and substance abuse. Also experience of stress can result in students experiencing ineffective communication, inefficient at work and decreasing the quality of health-care services" [5].

"Psychiatric nursing intervention will be helpful not only for the nursing student but also for other nursing staff in clinical area, nursing professionals and will be helpful for any individual who feels somewhere deviation of normal psychology. Nurse educators should develop stress management programs and psychological care to university nursing students to
help them reduce their stress levels and cope in healthy ways. This study will add knowledge and practice to the nursing field in exploring the psychiatric nurse role on managing nursing students stress and psychological wellbeing” [6].

2. SIGNIFICANCE OF THE STUDY

"Prevalence of academic stress is very high in health students, especially in nursing and medical students” [7], [8] reported that "60 percent and 62 percent of total nursing student from governmental college and private nursing respectively were stressed". Also, [9] have found that "stress prevalence among medical students has reached up to 63%, with 25% considered to be of severe type". "High stress interferes with students’ ability to think critically, self-reflect, and provide quality care". Moreover, [10] found that "more than 50% of students who reported increased stress levels with their choice of nursing as a career were suffering from feeling of frustration, discouragement and inadequacy”.

An Egyptian study by [11], which studied "Stress among Mansoura (Egypt) baccalaureate nursing students". Their results revealed that "40.2% of nursing students reported high stress and academic pressures were the most frequent stressors". So, addressing stress to limit negative effects is an important aspect to improve learning, skills performance, and feelings of well-being.

Theoretical and Operational Definitions:

1- Psychological wellbeing: is defined theoretically as the capacities of all of us to feel, think, and act in ways that enhance our ability to enjoy life and deal with the challenges we face. It is a positive sense of emotional and spiritual wellbeing that respects the importance of culture, equity, social justice, interconnections, and personal dignity”[12]. In this study, it is operationally defined as the level of students’ autonomy, environmental mastery, personal growth, self-acceptance, purpose in life and positive relations with others that will be measured according to Al-Jammal (2013)

2- Stress: is defined theoretically as the feeling experienced when a person perceives that the demands of a situation exceed the resources the individual is able to use”[13]. In the present study, it is operationally defined as the level of students’ academic load, Clinical concerns, Personal problems and Interface worries that measured according to Jones & Johnston (1999)

3- Nursing intervention: is defined theoretically as “A single nursing action, treatment, procedure, activity, or service designed to achieve an outcome of a nursing or medical diagnosis for which the nurse is accountable”[14]. In the present study it is operationally defined as the psycho-educational program which was developed by the researcher based on scientific review of literature and under supervisors’ guidance and was given for the students in the form of sessions focusing on assertiveness, time management,.....etc also involves the application of stress management techniques such as relaxation.

3. SUBJECTS AND METHODS

3.1 Aim of the Study:

The aim of this study is to evaluate the effect of nursing intervention on stress and psychological wellbeing among university nursing students.

3.2. Research Hypothesis:

- The students who will participate in the nursing intervention (study group) will have higher mean scores of psychological wellbeing after implementation of the nursing intervention than students who don't receive the intervention.
- The students who will share in the nursing intervention (study group) will have lower mean scores of stress after implementation of the nursing intervention than students who don't receive the intervention (control group).

3.3 Research design:

A quasi experimental design, two groups (intervention and control group pre/ posttest) was used to achieve the aim of the study
3.4. Setting:
This study was conducted at Faculty of Nursing, Menoufia University.

3.5. Subjects:
A purposive sample of (n=100 students) selected from first year nursing students at the Faculty of nursing who have scores of 64 or less to 106 on psychological wellbeing scale and have scores of 34 - 66 on student nurse stress index. The researcher divide (100 students) randomly into two groups, study group (50 students) who receive the nursing intervention and control group (50 students) who did not receive the nursing intervention.

3.5.1. Inclusion Criteria:
- First year university nursing students
- Both sexes
- Agree to participate on the study

3.5.2. Exclusion criteria:
- Any history of chronic physical illness as Diabetes mellitus and any history of psychiatric illness as depression because these illnesses may lead to high stress and low psychological wellbeing that interfere with results.
- Students who disagree to participate in the study.

3.6. Instruments of the Study:
Data were collected using the following three tools:

Tool (1): Semi-structured interviewing questionnaire:
It includes socio-demographic characteristics including: student's age, marital status, family number, and income.

Tool (2): Student nurse stress index:
This scale was developed by Jones & Johnston (1999) to measure the sources and levels of stress in nursing students. It was translated into Arabic by (Eldeeb and Eldosoky, 2016), then tested for content validity by the researcher. It consists of 22-items. Responses were rated on a 3-point Likert scale from 1-Not stressful to 3-Extremely stressful.

Scoring system:
Score less than (34) mean low stress
Score from (34 to 45) mean mild stress
Score from (46 to 56) mean moderate stress
Score from (57 to 66) mean high stress

Tool (3): Psychological wellbeing scale:
This scale was originally developed by Rosemary Abbott (2006) to assess Psychological wellbeing. It was translated into Arabic and validated by Al- Jammal (2013). It consists of 42 items covering six dimensions (Autonomy, Environmental mastery, Self-acceptance, Personal growth, Purpose in life, Positive relations with others). Responses were rated on a 3-point Likert scale labeled from 'disagree ' to 'agree strongly'. High values indicate high psychological well-being.

Scoring system:
Score less than (64) mean low psychological wellbeing
Score from (64 to 85) mean mild psychological wellbeing
Score from (86 to106) mean moderate psychological wellbeing
Score from (107 to 126) mean high psychological wellbeing
It consists of six subscales:

1. Autonomy: 1, 2, 3, 4, 5, 6, 7
2. Environmental mastery: 8, 9, 10, 11, 12, 13, 14
3. Personal growth: 15, 16, 17, 18, 19, 20, 21
4. Positive relation with others: 22, 23, 24, 25, 26, 27, 28
5. Purpose in life: 29, 30, 31, 32, 33, 34, 35
6. Self-acceptance: 36, 37, 38, 39, 40, 41, 42

- Note:
  Q5, Q6, Q7, Q12, Q13, Q14, Q18, Q19, Q20, Q21, Q26, Q27, Q28, Q31, Q32, Q33, Q34, Q35, Q40, Q41, and Q42 should be reverse-scored. Reverse-scored items are worded in the opposite direction of what the scale is measuring. The formula for reverse scoring an item is: 
  
  \[ \frac{(\text{Number of scale points}) + 1}{} - \text{Respondent’s answer} \]

  For example, Q7 is a 3-point scale. If a respondent answered 3 on Q7, you would re-code their answer as: \((3 + 1) - 3 = 1\).

3.6.1 Reliability of the Tools

Reliability was applied by the researcher for testing the internal consistency of the tool, by administration of the same tools to the same subjects under similar conditions on one or more occasions. Answers from repeated testing were compared (Test-re-test reliability). Tools proved to be reliable at 0.83 for tool two and 0.90 for tool three.

3.6.2. Validity of the Tools

They were tested for content validity by jury of five experts in the field of psychiatric Health Nursing and community nursing specialty to ascertain relevance and completeness. The tools proved to be valid.

3.7. Procedure:

An official approval was obtained from the dean of faculty of nursing and the head of the department of first-year nursing students. Ethical Consideration: The students give fully informed verbal consent to participate. The questionnaire used in the study was administered by the researcher. The patients were briefed about the study, encouraged to participate and motivated to express their feeling. It was emphasized that all data collected was strictly confidential and the data would be used for scientific purposes only and the students have full right to withdraw from the study at any time. A Pilot study was carried out on 10 students before starting data collection; this was done to estimate the time required for filling out the sheet and also to check the clarity of the tools. The sample of the pilot study was excluded from the study. Data collection for the study was carried out in the period from February 2019 to April 2019. The researcher gathered the data throughout the morning at two days/week from 10 AM to 12 AM. The subjects were divided into 4 groups; each of them consisted of 12-13 students. Implementation of the study passed into three phases pre assessment phase, implementation phase and post assessment phase.

3.7.1. Pre assessment phase (Measure 1):

A comfortable, non-public place was used to be chosen for the interview. Orientation was done about the researcher’s name, purpose, significance, content of the study. Students were asked to fill the pre-assessment student nurse stress index and psychological wellbeing scale.

3.7.2. Implementation Phase:

The study hypothesized that the students who will participate in the nursing intervention (intervention group) will have higher mean scores of psychological wellbeing and lower mean scores of stress after implementing the nursing intervention than students who don't receive the intervention (control group). Intervention group met for twelve consecutive weekly sessions that lasted approximately one hour. The researcher led the intervention group and informs them that they will attend 12 nursing intervention sessions within three month (one days/week). This was achieved through several teaching methods such as lecture, discussions, brain storming, and demonstration, re demonstration,
giving examples and modeling. Data show, video, pictures and booklet were used as media to facilitate explanation and to be a reference for students. At the end of each session; summary, feedback and further clarifications were done for vague items. Also, the researcher gave the students homework.

The sessions for nursing intervention were:

Session 1: The researcher welcomes students, introduces herself, explains the nature and purpose of the study and taking oral informed consent

Session 2: Focused on identifying the meaning, causes, symptoms and effect of stress on their health – identify concept of psychological wellbeing.

Session 3: Targeted on explaining and applying the steps of deep breathing exercise.

Session 4: Highlighted on explaining and applying the steps of progressive muscle relaxation.

Session 5: Concentrated on recognizing the concept of time management; explaining steps of time management, apply time management schedule

Session 6: Focused on identifying the meaning of assertiveness, explaining how to distinguish between three behaviors "assertion, aggression and negative or non-assertive", identifying benefits of assertive behavior, recognizing characteristics of assertive people, identifying signs of lack assertiveness, explaining examples for lack of assertiveness.

Session 7: Concentrated on practicing assertive skills

Session 8: Focused on Identifying and recognizing ways to achieve self-development and enhancement

Session 9: Focused on identifying concept of self-esteem, recognize ways to improve self esteem

Session 10: Identify concept of decision making and steps problem solving

Session 11: Targeted on Applying steps problem solving

Session 12: Evaluating the effect of nursing intervention on stress and psychological wellbeing

A short descriptions about some strategies employed in this study are discussed below.

(i) Progressive Muscle Relaxation (PMR)

"Progressive muscle relaxation is an exercise that relaxes your mind and body by progressively tensing and relaxing muscle groups throughout your entire body. You will tense each muscle group vigorously, but without straining, and then suddenly release the tension and feel the muscle relax. You will tense each muscle for about 5 seconds. If you have any pain or discomfort at any of the targeted muscle groups feel free to omit that step. "[15].

(ii) Deep Breathing Exercises

"Students are taught by the researcher, manual or audio how to inhale and exhale deeper and slower. They need to practice several times a day, for a few minutes to see immediate benefits". Method: -" (1) Sit comfortably with your back straight. Put one hand on your chest and the other on your stomach. (2) Breathe in through your nose. The hand on your stomach rise. The hand on your chest should move very little. (3) Exhale through your mouth, pushing out as much air as you can while contracting your abdominal muscles. The hand on your stomach should move in as you exhale, but your other hand should move very little. (4) Continue to breathe in through your nose and out through your mouth. Try to inhale enough so that your lower abdomen rises and falls. Count slowly as you exhale"[16].

(iii) Time management

"Time management plays a vital role in improving student’s academic performance. Every student should have time management ability which includes setting goals and priorities, using time management mechanism. The basic problems or constraints related to time management are similar, spending hours on social networking sites, no proper schedule, organization, guidance, targets, missions, objectives or vision and social engagement" [17].

3.7.3. Post Assessment Phase (Measure2):

Evaluation was done using student nurse stress index and psychological wellbeing scale.
3.8. Data Processing and Analysis:

Results were statistically analyzed by SPSS version 20. Student’s t-test, one way ANOVA (F test) and paired t test were used for parametric data. Chi-Squared ($\chi^2$) was used for qualitative variables. Pearson’s Correlation analysis was used to show strength and direction of association between two quantitative variables. P value <0.05 is considered significant.

Statistical analysis:

Results were statistically analyzed by SPSS version 20. Student’s t-test, one way ANOVA (F test) and paired t test were used for parametric data. Chi-Squared ($\chi^2$) was used for qualitative variables. Pearson’s Correlation analysis was used to show strength and direction of association between two quantitative variables. P value <0.05 is considered significant.

4. RESULTS

Table (1) Reveals that the mean age of the studied subjects is (18.2±0.42), mean family number is (5.69±1.01), the majority of the studied subjects are single (98%), most of them are females (82%) and more than half of them have enough income (57%).

Figure (1) reveals that there is highly statistically significant reduction in stress subscales mean score from (49.3±4.71) to (32.4±4.27) among study group after nursing intervention than before intervention where p value (p = 0.001).

Table (2) reveals that there is no statistically significant relation between stress and all socio-demographic characteristics of the study group before and after nursing intervention except gender there is statistically significant relation before nursing intervention where p value (p= 0.030).

Figure (2) shows that there is statistical significant improvement in the level of psychological wellbeing of study group after intervention than control group.

Table (3) reveals that there is no statistically significant relation between psychological wellbeing and socio-demographic characteristics of the study group pre and post intervention except for gender there is statistically significant relation between psychological wellbeing and gender post intervention where p value (p = 0.04).

Figure (3) reveals that there is highly statistical significant elevation of psychological wellbeing sub scales mean score from (79.8±6.84) to (110.2±5.19) among study group after nursing intervention than before nursing intervention where p value (p = 0.001).

Table (4) shows that there is highly statistically significant negative correlation between total stress level and psychological wellbeing of study group post nursing intervention than before intervention where p value changed from (p = 0.023) pre intervention to (p= 0.001) post intervention among the study group. This indicating the effect of the program in reducing stress and improving the psychological wellbeing of the students.

Table (1): Socio demographic characteristics of the studied subjects (N =100):

<table>
<thead>
<tr>
<th>Socio demographic characters</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
</tr>
<tr>
<td>Age / years</td>
<td>Mean ±SD</td>
</tr>
<tr>
<td>Range</td>
<td></td>
</tr>
<tr>
<td>Family number</td>
<td>Mean ±SD</td>
</tr>
<tr>
<td>Range</td>
<td></td>
</tr>
<tr>
<td>Marital state</td>
<td>Married</td>
</tr>
<tr>
<td>Single</td>
<td>98</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
<td>82</td>
</tr>
<tr>
<td>Income</td>
<td>Enough</td>
</tr>
<tr>
<td>Not enough</td>
<td>43</td>
</tr>
</tbody>
</table>
Figure (1): Comparison between mean score of stress pre and post intervention among study group

Table (2): Relationship between stress and socio demographic characteristics of the study group pre and post nursing intervention (N = 50):

<table>
<thead>
<tr>
<th>Socio demographic characteristics</th>
<th>Total stress pre-intervention</th>
<th>Test of sig.</th>
<th>Total stress post-intervention</th>
<th>Test of sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mild (N=9)</td>
<td>Moderate (N=40)</td>
<td>Severe (N=1)</td>
<td>P value</td>
</tr>
<tr>
<td>Age / years</td>
<td>Mean ±SD</td>
<td>Range</td>
<td>Mean ±SD</td>
<td>Range</td>
</tr>
<tr>
<td></td>
<td>18.0±0.00</td>
<td>18-18</td>
<td>18.2±0.42</td>
<td>18-19</td>
</tr>
<tr>
<td>Family number</td>
<td>Mean ±SD</td>
<td>Range</td>
<td>Mean ±SD</td>
<td>Range</td>
</tr>
<tr>
<td></td>
<td>5.66±0.70</td>
<td>5-7</td>
<td>5.55±0.95</td>
<td>4-7</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Marital state</td>
<td>Married</td>
<td>11.1</td>
<td>88.9</td>
<td>0.00</td>
</tr>
<tr>
<td>Income</td>
<td>Enough</td>
<td>33.3</td>
<td>66.7</td>
<td>23.5</td>
</tr>
</tbody>
</table>

K: Kruskal Wallis test   S: significant
Figure (2): Level of psychological wellbeing among study subjects pre and post nursing intervention (N =50 for each group):

Table (3): Relationship between psychological wellbeing and socio demographic characteristics among study group pre and post intervention (N =50):

<table>
<thead>
<tr>
<th>Socio demographic characteristics</th>
<th>Total psychological well being</th>
<th>Test of sig. P value</th>
<th>Total psychological well being</th>
<th>Test of sig. P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mild (N=37)</td>
<td>Moderate (N=13)</td>
<td></td>
<td>Moderate (N=10)</td>
</tr>
<tr>
<td>Age / years</td>
<td>Mean ±SD Range</td>
<td>t-test</td>
<td></td>
<td>U</td>
</tr>
<tr>
<td></td>
<td>18.1±0.37 18-19</td>
<td>0.544 0.589 (NS)</td>
<td></td>
<td>0.855 0.914 (NS)</td>
</tr>
<tr>
<td>Family number</td>
<td>Mean ±SD Range</td>
<td>t-test</td>
<td></td>
<td>U</td>
</tr>
<tr>
<td></td>
<td>5.67±0.94 5-7</td>
<td>1.54 0.130 (NS)</td>
<td></td>
<td>1.25 0.209 (NS)</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>FE 0.005 0.944 (NS)</td>
<td></td>
<td>FE 5.35 0.041 (S)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 31</td>
<td>16.2 83.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>84.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital state</td>
<td>Married</td>
<td>FE 0.359 0.549 (NS)</td>
<td></td>
<td>FE 0.255 1.00 (NS)</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 36</td>
<td>2.70 97.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>Enough</td>
<td>FE 1.64 0.200 (NS)</td>
<td></td>
<td>FE 1.28 0.308 (NS)</td>
</tr>
<tr>
<td></td>
<td>Not enough</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 19</td>
<td>48.6 51.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 9</td>
<td>69.2 30.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

U: Mann-Whitney test  FE:Fisher exact test  NS: Non significant  S: significant
Figure (3): Comparison between mean score of Psychological wellbeing pre and post intervention among the study group

Table (4): Pearson correlation between stress and psychological wellbeing among study group pre and post intervention:

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Total stress level</th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>R</td>
<td>P value</td>
</tr>
<tr>
<td>Psychological well being</td>
<td></td>
<td>-0.322</td>
<td>0.023 (S)</td>
</tr>
</tbody>
</table>

HS: High significant  S: significant

5. DISCUSSION

Stress has become part of students’ academic life due to the various internal and external expectations placed upon their shoulders. Adolescents are particularly vulnerable to the problems associated with academic stress as transitions occur at an individual and social level. Transition to university is stressful and successful adjustment is important for well-being. The university transition also requiring adaptation to a new social and academic environment. There are Numerous research have been published regarding stress, sources of stress and impact of stress on nursing students however, little research exists regarding how to manages their stress and improve their psychological well-being. It therefore, becomes imperative to derive adequate and efficient intervention strategies in order to manage stress they face and improve their psychological well-being. Therefore, the purpose of this study was to evaluate the effect of nursing intervention on stress and psychological wellbeing among university nursing students [18].
The present study revealed that most of the studied subjects were females; this reveals that nursing has a high proportion of females or due to high percentage of females in first year than males. This was consistent with [4]. Who conducted a research about "The Relationship between Psychological Wellbeing and Successfully Transitioning to University" who reflected that more than half of the students included in his study were females. The present study revealed that the mean age of the study group and control group of the students were (18.2±0.38) and (18.2±0.44) years old respectively; this could be due to the suitable age for entering university in Egypt were at nearly this age.

In addition, the current study showed that the majority of the study subjects were single, and more than half of them have enough income. This may be due most of the families prefer their sibling continuing study before marriage. This was in the same line with [19], who conducted a research about "Relationship between Facebook Use and Psychological Well-being for Baccalaureate Nursing Students at Benha University" who found that more than two thirds of study subjects had enough income and more than half of them were single.

Concerning the comparison of the mean score of Stress among studied subjects (study and control group) before and after nursing intervention, the present study reflected that there was highly statistically significant reductions in stress mean score level of study group than control group after nursing intervention than before nursing intervention. This indicated that the intervention sessions was within the interest and the needs of the students so it had a positive effect in increasing students' ability to react and deal with stressful situations and improve their ability to solve problem and to manage their time more effectively. This finding was supported by study done by [20], who conducted a research about "Effect of Yogic Exercises on Life Stress and Blood Glucose Levels in Nursing Students". He showed that the Life Stress Score significantly differed between the study and control groups, where the Life Stress subscale scores were decreased significantly in the study group after the yoga exercises. Also, study done by [21] about "The effectiveness of stress management training program on depression, anxiety and stress of the nursing students" They reported that mean scores of stress in the study group after the intervention showed a significant difference, but this was not significant in the control group.

As regards to relation between stress and socio demographic characteristics, the present study revealed that there was statistically significant relation between gender and total stress level before nursing intervention where p value (p=0.030). This may be due to that male and female have different reactions to stress; females are more likely to report physical and emotional symptoms of stress than males. This result was in the same line with [22], who conducted a research about "Stress and Coping Strategies among Nursing Students". They found that gender was statistically significant with stress level. Also, the current study showed that there was no statistically significant relation between stress and (age, family number, marital status and income) of study group before and after nursing intervention. This result was congruent with [23] who conducted a research about "Perceived stress among Macao nursing students in the clinical learning environment". They found that there was no statistically significant relation between stress and all socio-demographic characteristics of the study group.

Regarding Level of psychological wellbeing among study subjects pre and post nursing intervention, the current study showed that there was statistically significant improvement in the level of psychological wellbeing of study group than control group after intervention. This indicated that nursing intervention sessions had a positive effect on reducing the stress perceived by students, improved students optimism and sense of self efficacy. This finding was in the same line with [22]; they found that there was a statistically significant improvement in the level of psychosocial well-being for study group who completed the cognitive behavioral intervention program. No corresponding changes were identified in the control group.

Concerning relationship between psychological wellbeing and socio demographic characteristics among study group pre and post intervention, the current study revealed that there was statistically significant relation between psychological wellbeing and gender after intervention. This may be due to ability of female to express negative emotion than male. Where male tend to suppress expression of emotion; this result was inconsistent with [24] who conducted a research about "Examining the Differences of Gender on Psychological Well-being"; their results showed that there were no significant differences in terms of gender and all the dimensions of psychological well-being (autonomy, environmental mastery, positive relations with others, self-acceptance, personal growth, and purpose in life).
Also, the present study revealed that there was no statistically significant relation between psychological wellbeing and socio-demographic characteristics (age, family number, marital status and income) of the study subject before and after intervention; this result was in the same line with [25]; they found that intervention and control group participants did not differ significantly on any demographics.

Concerning correlation between psychological wellbeing and stress before and after nursing intervention program the present study revealed that there was a highly statistically significant negative correlation between total stress level and psychological wellbeing of study group post nursing intervention than before intervention where p value changed from (p = 0.023) pre intervention to (p= 0.001) post intervention among the study group. This indicating the effectiveness of the program session in reducing stress and improving the psychological wellbeing of the students this was supported with [26] who conducted a research about “The link between stress, well-being, and psychological flexibility during an Acceptance and Commitment Therapy self-help intervention”. They found that there was statistically significant negative correlation between total stress level and psychological wellbeing of study group before and after intervention. Also, [27] who conducted a research about “Stress and Psychological Well-being: An Explanatory Study of the Iranian Female Adolescents”. They found that a highly statistically significant negative correlation exists between stress and psychological well-being

6. CONCLUSION

There was a negative significant correlation between level of stress and psychological wellbeing. There was statistical significant difference between gender and both of stress levels and psychological wellbeing. The nursing intervention has a positive effect on reducing stress level and improving psychological wellbeing among nursing students.

7. RECOMMENDATION

Based on the findings of the present study, it could be recommended that:

1. Monitoring the student's mood, encourage the students to participate in pleasant activities, develop self-control and improve psychological wellbeing.
2. Stress management and assertiveness training program should be given to the first year students to relieve their psychological problems and enhance their coping patterns.
3. Guidance and counseling unit should be part of the faculty management system so that students can come there to discuss issues affecting them.
4. Provide Psycho educational program for increasing public awareness about stress, its multiple consequences and management.
5. Replicate of the study using a larger sample in different settings to generalize the results.

REFERENCES


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