

Role of Social Support on Nursing Students' Perceived Stress during Clinical Training: An Intervention Study

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Abstract:

Background: Nursing students have the same stressors as other college students in addition experience a clinical component, which is highly stressful. Social support networks can help the students during problem or stress. **Aim of the study:** Evaluate the role of social support on nursing students' perceived stress during clinical training: an intervention study. **Design:** A quasi-experimental pretest-and-posttest design was used to determine the role of social support on nursing students' perceived stress during clinical training in Technical Health Institute in Zagazig city. **Setting:** the current study was conducted at Technical Health Institute at El Ahrar, Zagazig, Sharkia Governorate. **Sample:** A simple random sample of the second-year nursing students from the academic year 2020 - 2021, enrolled in the general nursing department in the first semester. The total number of nursing students were 292; the required sample size was 100 nursing student divided equally randomly into two groups study & control. **Tools:** two tools were used to collect data for the study. The first tool was Demographic data questionnaire and Student Nurses Stress Index. The second tool Duke-UNC Functional Social Support Questionnaire. **Results:** There was statistically significant difference between the control group and the study group at post intervention program regards personal, academic, clinical & Inference worries stress levels, with decreasing levels at post intervention program, $p < 0.05$. There was significant increase in social support score in the study group at post intervention program ($p = 0.0001$). Moreover, the results revealed post- intervention significant negative correlation between stress score and social support score $p < 0.05$. **Conclusion:** the study intervention program was effective in reducing stress and improve social support usage among the studied nursing students. **Recommendations:** Applying the study intervention program for more improvements to decrease the risk of stress and improve social support among nursing students in the nursing educational institutions.

Keywords: Nursing students, Social support, and Stress.

Introduction:

Stress is defined as any circumstances that threaten or are perceived to threaten one's well-being and thereby tax one's coping abilities (Jurado et al., 2019). In addition, Stress has been identified as a 20 century disease and has been viewed as a complex and dynamic transaction between individuals and their environments. In this interaction, demands, limitations and opportunities related to work may be perceived as threatening to surpass the individual's resources and skills. Stress is any physical or psychological stimulus that disturbs the adaptive state and provoked a coping response (Gomathi&Jasmindebora, 2017).It is also defined as an alteration in the homeostasis of a person due to various factors that may affect the physical, mental, emotional, and behavioral aspects of a person (Albaqawi et al., 2018; Albaqawi et al., 2022).

Stress in nursing begins at the grassroots wherein a student juggles the rigorous academic curriculum with clinical learning and personal obligations (He et al., 2018). Nursing students have the same stressors as other college students, such as mid-term and final examinations, research papers and other assignments. In addition; nursing students experience a clinical component, which is highly stressful (Al-Gamal et al., 2018; Dev Bhurtun et al., 2021).

One of the most crucial points of the education of nursing students is that the classes are conducted within a clinical environment, where the application of theoretical knowledge in practice is of key importance. The curriculum in a nursing school is aimed at preparing the graduates for working as independent practitioners and for applying the most up-to date knowledge and skills in practice. The purpose of the education process is also to develop critical thinking, clinical decision making and teamwork skills in students. This process should allow the students to integrate into the clinical environment and develop their professional identity (Bodys-Cupak et al., 2022)

Prolonged suffering from high-level stress is known to have caused anxiety and depression. That ultimately affects the quality of life as a result of deterioration of physical and psychological well-being associated with stress. Such deterioration of well-being may continue to intensify as students completing their education as well as transiting from education institution into workforce. Chronic suffering of stress and associated physical and physiological symptoms could turn into a major public health issue. A number of suicide incidents associated with nursing students from vocational education and training institutions as a result of stress were reported last year (Deng et al., 2022).

Social support networks can help the students during problem or stress. Social support is consistently associated with positive outcomes for students, in terms of wellbeing and academic achievement (McLean et al., 2022). Social support is comprised of social ties and verbal and nonverbal communicative exchanges that help people to feel cared for, to manage uncertainty, and to experience a sense of personal control and connection to others (Donovan & Greenwell, 2021). As well as, Social support is broadly defined as the perception that one is cared for by others and has a reliable social network that can be turned to in times of need (Lu Zhou et al., 2022). In addition to, Social support can be characterized as support that boosts an individual's psychological drive and provides an emotional, physiological, and cognitive contribution, and that comes from family, friends, and institutions (Yuhuan et al. 2022).

Furthermore, social support can be measured in terms of structural support or functional support. Structural support (also called social integration) refers to the extent to which a recipient is connected within a social network, like the number of social ties or how integrated a person is within his or her social network. Family relationships, friends, and membership in clubs and organizations contribute to social integration. Functional support looks at the specific functions that members in this social network can provide, such as the emotional, instrumental, informational, and companionship support listed above (Li & Wang, 2021).

Social support has a protective effect on mental health in stressful conditions and is a powerful predictor of overall health and well-being that can directly alter psychological processes such as evaluation, mood, and emotion. In stressful times, social support helps people reduce psychological distress (e.g., anxiety or depression). Social support can simultaneously function as a problem-focused e.g. receiving tangible information that helps resolve an issue and emotion-focused coping strategy e.g. used to regulate emotional responses that arise from the stressful event. Also, mentioned that, Social support has been found to promote psychological adjustment in conditions with chronic high stress like HIV, rheumatoid arthritis, cancer, stroke and coronary artery disease. Social support has been associated with various acute and chronic pain variables (Yuhuan et al., 2022; Johnsen et al., 2018)

Significance of the study:

Work-related stress among nurses is a global problem. The study done in the USA revealed that 93% of the nurses had high levels of stress (Tsegaw et al., 2022). In Egypt, Nearly half of the studied nursing students at Banha University had moderate level of total perceived stress (AbdElazeem et al, 2023). Nursing is a very challenging profession, which requires very stringent training since initial years of nursing education. Throughout the training period, students are exposed to various stressful situations. Inability to cope up with varied stressors may lead to psychological distress and impede students' pursuits of nursing career (Nebhinani et al., 2020).

Broadly speaking, social support is comprised of social ties and verbal and nonverbal communicative exchanges that help nursing students to feel cared for, to manage uncertainty, and to experience a sense of personal control and connection to others (Donovan, 2021).

Several researchers, such as (Bisson, 2017, Schimelpfening, 2020, Pascoe et al., 2020) have studied stress from a performance perspective and reported that stress negatively affect the academic performance of students. Therefore, our study was conducted to evaluate the role of social support on nursing students' perceived stress during clinical training: An intervention study.

Aim of the study:

The aim of the study was to evaluate the role of social support on nursing students' perceived stress during clinical training: an intervention study.

It will be achieved through the following objectives:

- 1- To assess nursing students' perceived stress during clinical training.
- 2- To assess nursing students social support.
- 3- To develop and implement the intervention program on nursing students' perceived stress and social support during clinical training.
- 4- To evaluate the role of the intervention program on reducing nursing students' perceived stress and improving their social support.

Research hypothesis:

After implementation of the intervention program nursing students' perceived stress during clinical training will be reduced and their social support will be improved.

Subjects and methods:

Research design:

A quasi-experimental pretest-and-posttest design was used to determine the role of social support on nursing students' perceived stress during clinical training in Technical Health Institute in Zagazig city.

Study setting:

This study was conducted at Technical Health Institute at El Ahrar, Zagazig, Sharkia Governorate,

Study subjects:

A simple random sample of the second-year nursing students from the academic year 2020 - 2021, enrolled in the general nursing department in the first semester. The total number of nursing students were 292; the required sample size was 100 nursing student divided equally randomly into two groups study & control.

Tools for data collection:

Tool I: It consists of two parts; part I: demographic and health status characteristics of nursing students; part II: Student Nurses Stress Index (SNSI). This scale was adopted from **Jones and Johnston, (1997)** to assess nursing students' perceived work stress.

Scoring System for Student Nurses Stress Index (SNSI):

The Scale items were rated on 5-point Likert scale with response options of: Not stressful is given (1), Weakly stressful is given (2), Moderate stressful is given (3), Strongly stressful is given (4) Extremely stressful is given (5) for each nurse student then total score was calculated and converted into percent score by dividing nurse students' total score by the maximum possible score. These scores were measured as follows:

Not stressful < 20 %

Weekly stress 20%-40 %

Moderate stress >40%-60%

Strongly stress >60-80%

Extremely stress >80%

Tool II: Duke - UNC Functional Social Support Questionnaire, (Ducke SSQ): this scale was adopted from **Broad head, et al., (1988)** to assess social support.

The scoring system for Duke - UNC Functional Social Support Questionnaire, (Ducke SSQ)

The scale items were rated on 4-point Likert scale with response options of: I usually didn't do this at all (1),

I usually did this a little bit (2),

I usually did this a medium amount (3),

I usually did this a lot (4), for each nurse student then total score was calculated and converted into percent score by dividing nurse students' total score by the maximum possible score. These cores were measured as follows:

I usually didn't do this at all <25 %

I usually did this a little bit 25%- <50%

I usually did this a medium amount 50%- <75%

I usually did this a lot $\geq 75\%$

Intervention program: Based on the assessment phase and detected the nursing students who entered the program, the study was executed through assessment, planning, implementation and evaluation phases. The researcher designed an intervention program including theoretical part covering basic knowledge about definition and types of stress, and social support and practical part teaching how to deal with stress. The intervention program was implemented in 7 sessions and its effectiveness was evaluated at the end of the implementation phase using the same tool of the assessment phase.

Validity &Reliability:

Validity was ascertained by three experts from psychiatric Nursing , Community Health Nursing and Nursing Administration staff who reviewed the tools content for clarity, relevance, comprehensiveness and understandable. All recommended modification were applied..

Reliability Reliability of tools was assessed through estimating test-retest Reliability and measuring their internal consistency. Test-retest Reliability was done by the researcher through administrating the same tools to the same subjects under similar conditions on two or more occasions. Internal consistency of the tools was assessed by calculating Cronbach alpha coefficients. Their reliability proved to be high; Stress Cronbach alpha coefficientsscore was 0.89 and Social support score was 0.75.

Field work:

The study was executed through successive phases of assessment, planning, Implementation and evaluation.

Assessment phase (pre-intervention data collection):

Upon finalization of the tool and securing necessary official permissions, the researcher started to recruit the sample of participants according to the eligibility criteria. First introduced herself, explained the purpose of the study briefly to the participants and invited them to participate. Every participant was met individually and awritten consent for participation was obtained. The

researcher read and explained the tool items to the participant and then handed him/her the form to fill-in the answers. The time consumed for answering all questions and scales from 30 to 35 minutes. This phase lasted 1 month from beginning of January 2021 to beginning of February 2021.

Planning phase

Biased on the result obtained from the assessment phase, and in view of related literature, the researcher designed the sessions of the intervention program. The objectives and the content were according to the nursing students' needs. This, the identified needs, requirements and deficiencies were translated into aim and objectives of the sessions, which were included in a booklet. This booklet consisted of two main parts. The first part composed of four sessions included knowledge and practice about stress. The second part composed of three sessions included knowledge about social support. Teaching methods included demonstrations, individual and group discussion, as well as role-play. Reinforcement was applied frequently during the sessions. The program content was as follow:

Implementation phase

The program was implemented in the form of small group sessions. Twelve sessions, each session lasted about 20 to 30 minutes. For 12 weeks once /week, those sessions were provided for the studied nursing students. Each session had its own title and objective according to its content. The length of each session was different according to studied nursing students' assimilation of content as well as time availability and content of each session. However, to ensure exposure of all studied nursing students to the same learning experience, all studied nursing students received the same content using the same teaching methods, media, discussion, and the same booklet. This phase lasted for 3 months from the beginning of February 2021 to the end of April 2021.

The introductory session was used to present the aim and general objectives of the program and set rules for leading the sessions. Then, each session started by a summary about what was given through the previous session and the objectives of the new one, taking into consideration the use of simple language to suit the level of understanding of the nursing students. Motivation and reinforcement techniques as praise and recognition during the sessions were used to enhance active participation and foster learning. The sessions were aided by using picture, posters, as well the program booklet.

Evaluation phase: The evaluation of the effectiveness of the intervention program was done after its implementation by a post-test that was carried out after one month of completion of the program this was done using the same data collection tools of the pre-test.

Pilot study:

A pilot study was carried out on 10 nursing students from the study setting (ten percent of the calculated sample for main study). The purpose was to test the feasibility, and clarity of the tools and to help know the time needed for filling in the data collection forms. From the pilot study results, the average time to fill-in the tool was 20 to 30 minutes. The participants involved in the pilot study were included in the main study sample since no modifications was needed in the data collection form.

Administrative and Ethical consideration:

The study proposal was approved by the Ethics Committee at the Technical Health Institute. Participants were informed about the purpose of the study and voluntary participation and confidentiality were ensured. They were informed about their right to refuse to participate or withdraw from the study at any time without giving a reason. Measures were taken to ensure privacy.

Statistical analysis:

All data were collected, tabulated and statistically analyzed using IBM Corp. Released 2015. IBM SPSS Statistics for Windows, Version 23.0. Armonk, NY: IBM Corp... Quantitative data were expressed as the mean \pm SD & median (range), and qualitative data were expressed as number & (percentage). Paired t test was used to compare between paired of normally distributed variables. Percent of categorical variables were compared using, Chi square test or Fisher Exact test when appropriate. Pearson' correlation coefficient was calculated to assess relationship between various study variables, (+) sign indicate direct correlation & (-) sign indicate inverse correlation, also values near to 1 indicate strong correlation & values near 0 indicate weak correlation. All tests were two sided. P-value < 0.05 was considered statistically significant, p-value \geq 0.05 was considered statistically insignificant. % of improvement = (after value – before value) / before value) * 100

Results:

Table 1: shows Demographic characteristics of nursing students in the study and control groups Concerning Father Occupation, lower than half of the studied groups (48.0%) whose, Fathers had private work and Worker. The same table demonstrates that, lower than half of nursing students in the study group (46.0%) whose Mother education were secondary education, while three- fifth of the nursing students in the control group (60.0%) whose Mother education were secondary education. Regards, Mother's Work; 76.0% of the study group & 84.0% of the control group were house wives.

Table (2): shows health status and habits of nursing students in the study and control groups, this table reveals that, (86.0%) of nursing students in the study group and (94.0%) of control group hadn't Chronic Disease. The majority of the nursing students in the study group (82.0%)

and control group (86.0%) had normal General Health Perception. The same table demonstrates that, lower than three fourth of the nursing students in the study group (72.0%) and control group (74.0%) hadn't Physical Activity. Concerning Hoppy, more than two thirds of the nursing students in the study group (70.0%) and control group (68.0%) hadn't Hoppy

Table (3):shows that, Frequency distribution of personal, academic, clinical& Inference worries stress levels at post intervention program in the control and study groups, this table detected that, after the implementation of the program more than half of the nursing students (54.0%) in the control group had moderate level of stress meanwhile two thirds of nursing students (66.0) in the study group had weak level of stress with the statistically significant difference at post intervention program ($p=0.0001$).

Table 4: shows Frequency distribution of social support level at post intervention program in the control and study groups, this table demonstrates that, after the implementation of the program (42.0%) of the nursing students in the

control group had usually social support level while, it was 66.0%of nursing students in the study group had always social support level with the statistically significant difference at post intervention program ($p=0.0001$). It's clear from the table that there is significant increase in social support score in the study group at post intervention program, $p<0.05$.

Table (5):It's clear from the table that, there is significant negative correlation between stress score and social support score $p<0.05$.

Discussion:

Nursing students experience stress when curricular demands exceed their resources to deal with these demands(**Chaabane et al., 2021**). Social support networks can also help the students during problem or stress. Social support is consistently associated with positive outcomes for students, in terms of wellbeing and academic achievement (**McLean et al., 2022**).

The current study results showed that lower than half of nursing students in the study group whose Mother education were secondary education, while three- fifth of the nursing students in the control group whose Mother education were secondary education and lower than half of the studied groups whose, father had private work and worker while more than three quarters of participants whose mother were house wives. This result was consistent with **Ramadan &Ahmed, (2015)** conducted a study and found that less than half of nursing students' mother educational level and occupation were secondary education and had no work and one third of study group fathers were secondary education while one third of control group were university level and lower than half of both groups were working.

In the same line, **Kumar & Nancy (2012)** conducted a study in one of the private nursing college situated in **Punjab and affiliated to Baba Farid University of Health Sciences, Faridkot**, found that only more than one fourth of students' father and less than one fourth of students' mother had their education up to graduation and one third of fathers were farmers and three fourths of mothers were house wives. This result was incongruent with **Alavijeh et al., (2017)** conducted a study in **Ahvaz, Iran**, detected that the majority of fathers of students were employed and the majority of parents' educational level was high school with fathers and mothers. Also, this result disagreed with the study conducted by **Eltrass et al., (2022)** proved that more than half of the students' mothers and fathers were highly educated. Meanwhile, more than two thirds of the students' fathers were employees.

Regarding chronic disease, the present study revealed that the majority of nursing students in the study group and most of control group hadn't Chronic Disease. This might be due to the admission requirements of nursing education. These results agreed with the study conducted by **Komser&Özakgöl, (2023)** found that 90.1% of students did not have chronic disease. Similarly, **Suheyli et al., (2023)** conducted a study at a **university in Turkey**, stated that 92.7% did not have a chronic disease. As well as, **Eltrass et al., (2022)** found that the majority of studied participants had no history of chronic diseases. On contrary, **Kassem&Abdou, (2015)** reported that one fourth of studied participants had chronic health problems.

Concerning general health perception, the findings of the present study stated that the majority of the nursing students in the study group and control group had normal General Health Perception. These results was consistent with **Rahman et al., (2019)** conducted a study in **Lahore School of Nursing, The University of Lahore** stated that 90% of participants have positive perception regarding health. On contrary, **OECD, (2017)**, conducted a study found that since older people report poor health more often than younger people, countries with a larger proportion of aged persons will also have a lower proportion of people reporting to be in good health.

Regarding stress level of studied nursing students at different study periods. The implementation of the current study intervention led to significant reduction in nursing students' perceived stress level, which confirms the set hypothesis. The success of the present study intervention was due to helping nursing students to express their stress feelings, use coping processes and seek social support, which results in decreasing their stress and improving their usage of coping processes and social support.

According to current study findings, there is statistically significant relation between social support level and happy in the study group at pre intervention program. This result was consistent with **Komser&Özakgöl, (2023)** found that The "social support scores of the students participating in the activity/dealing with hobby were found to be higher than the scores of those

who did not participate in the activity/no dealing with hobby. The foregoing present study also demonstrated a highly statistically significant negative correlation between stress score and social support score at post intervention program. These result findings could attribute these findings to, the booklet which had an excellent source of information and references to the students which helped to increase their knowledge and improve their coping or might be explained as in a profession that is labeled as stressful one, the nursing students can not completely eliminate stress in their education/ training process, but can control how much it affects. Stress can be managed through effective social support.

This finding was consistent with a study done by **Kassem&Abdou, (2015)** reported that there was a negative significant correlation between students' stress and perceived faculty support. Moreover, **Ahmed et al., (2021)** reported that there was a highly statistical correlation between coping patterns and clinical stressors. Also, **Yin Ching et al., (2020)** in their study mentioned that there was a highly statistical correlation between coping and stressors. Similarly, **Maghsoodi&Salehinejad, (2020)**, in a study carried out in **Irian** reported that social support has more influence on problem-focused than emotion-focused methodology, in other words, problem-oriented tolerance has the most positive and direct relationship with social support. Also, **McLean et al., (2022)** revealed that there was a negative correlation observed between students reported levels of social support and experience of stress.

Conclusion:

The study results conducted to the conclusion that, more than half of nursing students in the study and control groups had moderate total stress level. More than two fifths of nursing students in the study and control groups usually had Social support. The implementation of the study intervention program was effective in reducing stress and increase social support score in study group post intervention program. There was statistically significant negative correlation between stress score and social support score

Recommendations:

- 1- Applying the study intervention program for more improvements to decrease the risk of stress and improve social support among nursing students in the nursing educational institutions.
- 2- Attending ongoing educational program about how to reduce nurse students' stressors
- 3- Make use of family support and release stress-reduced emotions. Family support is helpful for students faced with stress, no matter how they are adaptable to the stress..
- 4- Further research should be done to investigate the relation between stress and the actual using of coping process & social support of nursing students.

Table (1):Demographic characteristics of nursing students in the study and control groups
(n= 100)

Variables	Studied groups				χ^2	p-value
	Study group		Control group			
	n.50		n.50			
	No.	%	No.	%		
Gender						
Males	5	10.0	4	8.0	0.12	0.73
Females	45	90.0	46	92.0		
Age per years						
19.00	39	78.0	32	64.0	2.38	0.12
20.00	11	22.0	18	36.0		
Residence						
Rural	37	74.0	32	64.0	1.17	0.28
Urban	13	26.0	18	36.0		
No. of siblings:						
≤2	22	44.0	21	42.0	.04	0.84
>2	28	56.0	29	58.0		
Birth order:						
First	22	44.0	22	44.0		0.58
Middle	25	50.0	27	54.0		
Last	3	6.0	1	2.0		
Father education						
Illiterate	4	8.0	2	4.0		
read and write	14	28.0	9	18.0	3.71	0.29

secondary education	23	46.0	23	46.0		
University	9	18.0	16	32.0		
Father occupation						
Worker	17	34.0	24	48.0	4.22	0.12
private work	24	48.0	23	46.0		
Professional	9	18.0	3	6.0		
Mother education						
Illiterate	10	20.0	4	8.0	6.05	0.11
read and write	10	20.0	5	10.0		
secondary education	23	46.0	30	60.0		
University	7	14.0	11	22.0		
Mother work						
house wives	38	76.0	42	84.0	1.000	0.32
Worker	12	24.0	8	16.0		

Table (2):Health status and habits of nursing students in the study and control groups (n= 100)

Variables	Studied groups				χ^2	p-value
	Study group n.50		Control group n.50			
	No.	%	No.	%		
Chronic Disease						
Yes	7	14.0	3	6.0	1.78	0.18
No	43	86.0	47	94.0		
Disability						

No	50	100.0	50	100.0	-	-
Perception of general health						
Excellent	2	4.0	2	4.0		
Normal	41	82.0	43	86.0	.38	0.83
Weak	7	14.0	5	10.0		
Physical activity						
Yes	14	28.0	13	26.0	.05	0.82
No	36	72.0	37	74.0		
Physical activity(If yes)	14	100.0	13	100.0	0	1
Number/week	1.2±2.8		1 ±1.7		U 0.03	0.98
Hobby						
Yes	15	30.0	16	32.0	0.09	0.79
No	35	70.0	34	68.0		
Hobby(If yes)						
Reading	15	100.00	15	87.5	f	0.99
Drawing	0		1	12.5		
number/week	1.4±2.1		1.1±2		u 0.06	0.95

Table (3):Frequency distribution of personal, academic, clinical& Inference worries stress levels at post intervention program in the control and study groups.

	<i>Post intervention phase</i>	<i>%</i>	<i>t</i>	<i>p</i>
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	Control group n.50		Study group n.50		improve ment		
	No.	%	No.	%			
personal stress level							
no stress	7	14.0	29	58.0			
weak stress	15	30.0	18	36.0			
moderate stress	18	36.0	2	4.0			
strongly stress	9	18.0	1	2.0			
Extremely stress	1	2.0	0	0			
Mean ±SD	18.62±5.2		12.34±3.8				
Median(range)	18.5(11-30)		11(7-29)		33.7	6.9	0.0001
academic stress level							
No stress	1	2.0	12	24.0			
Weak stress	8	16.0	29	38.0			
moderate stress	19	38.0	6	12.0			
strongly stress	17	34.0	3	6.0			
Extremely stress	5	10.0	0	0.0			
Mean ±SD	26.04±5.8		17.7±4.4				
Median(range)	26.5(11-35)		17(12-31)		32.03	8.05	0.0001
clinical stress level							
No stress	9	18.0	34	68.0			
Weak stress	20	40.0	11	22.0			
moderate stress	19	38.0	4	8.0			
strongly stress	2	4.0	1	2.0			
Extremely stress	0	0.0	0		26.5	5.2	0.0001

Mean \pm SD	9.8 \pm 2.5		7.2 \pm 2.4				
Median(range)	10(4-17)		7(4-14)				
Inference worries level							
weak stress	0	0.0	28	56.0			
moderate stress	16	32.0	17	34.0			
strongly stress	20	40.0	5	10.0			
Extremely stress	14	28.0	0	0			
Mean \pm SD	9.02 \pm 3.1		7.2 \pm 2.4				
Median(range)	9.5(3-15)		7(4-14)		20.2	7.04	0.0001
Total stress level							
Weak stress	0	0.0	33	66.0			
moderate stress	27	54.0	17	34.0			
strongly stress	23	46.0	0	0.			
Mean \pm SD	67.2 \pm 14.6		42.9 \pm 13.8				
Median(range)	61(30-100)		40(28 -84)		36.2	7.15	0.0001

Table (4):Frequency distribution of social support level at post intervention program in the control and study groups.

	Post intervention phase				% of improvement	p-value
	Control group n.50		Study group n.50			
	No.	%	No.	%		
Social support level						
Always	14	28.0	33	66.0		

Usually	21	42.0	17	34.0			
Little	15	30.0	0	0.0			
Mean \pm SD	23.3 \pm 6.6		33.1 \pm 4.9		42.1	7.6	0.0001
median(range)	23(14-31)		32.5(20-38)				

Table (5):Correlation matrix between stress score and social support score at post intervention program (n.50):

Variables	Stress score	
	r	p
Stress score	1	
Social support score	-.367**	0.009

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