Effect of Peer Education Method on Knowledge and Practice of Selected First Aid Measures among Port Said Faculty Nursing Students

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ABSTRACT

Background: Peer education is one of the most popular health promotion methods now employed by nursing students. It assists on enhancing the knowledge, skill development as well as self-esteem for positive behavior of nursing students. Peer education is useful in first aid training and successful at lowering fatalities and illnesses. **Aim:** to evaluate effect of peer education method on knowledge and practice of selected first aid measures among Port Said faculty nursing students. **Subjects and Method: Design:** A quasi-experimental design was employed. ***Setting:*** Port Said faculty of nursing in Port Said University. **Subjects:** The study subjects comprised a sample of 87nursing students. **Tools:** *Tool I:* A structured questionnaire sheet consisting of three parts; Part I: Demographic characteristics of the studied students, Part II: student's characteristics regarding first aid training, Part III: student's knowledge questionnaire *Tool II:* observational checklist used for assessing nursing students' practical skills. **Results:** Total score of knowledge related to first-aid was lake about (2.6%) pre-program and post-program there was improvement in total knowledge about (36.4%). first aid practice for bleeding & wound of the studied students was (42.9%) pre- program and post- program there was improvement about (98.7 %). first aid practice for fracture of the studied nursing students was (32.5%) pre- intervention program then the percentage elevated to reach (92.2 %) post- intervention program. **Conclusion:** the educational program was successful in its aim positively changing the knowledge and practice of peer education. **Recommendations:** Use peer education strategies consistently when educating first aid to develop knowledge and skills and to boost student health.

Keywords: First Aid, Knowledge, Nursing student, Peer Education, Practice.

INTRODUCTION

Peer education is a method of health promotion that helps community members influence their peers' behaviour in a way that promotes health (Akuiyibo et al., 2021). Peer education was developed as a teaching method as a result of the ineffectiveness of the educational system. Based on the idea that sharing sensitive material with those in the same age group is simpler, this learning strategy is thought to be beneficial. Similar to this, according to the social consciousness theory, peers often copy the actions of persons they view as role models (Mabuie, 2020) .

The peer education approach, which has been used in the health field for the last two decades, is an effective way to help students overcome their personal fears and gain confidence during lectures to strengthen and improve their emotional recognition skills, thus improving their skills as teachers. This is a useful way to prepare for the future role of developing critical thinking skills (Viana et al. 2019).

The top reason of children mortality and adolescents is injuries. A large number of deaths occurred due to a delay in the response of the medical department or improper treatment of injuries due to a lack of knowledge (Hussien et al., 2020). In 2019, the population accident rate was one accident per 2 10,000 people, while the motor vehicle accident rate was 0.9 per 1,000 vehicles (WHO, 2019). The first aid is to stabilize an injured person until they receive medical attention and treatment.

First Aid works to preserve lives, safeguard victims who are unconscious, stop exacerbations, and encourage recovery (Zideman et al., 2021). As the largest and most crucial group of first aid healthcare professionals, nurses' abilities need to be continuously assessed and enhanced. Given these conditions, emergency preparation for nurses continues to be a major problem (Emaliyawati et al., 2021).Because motivated nurses can assist victims, nursing motivation is a crucial professional ability. Additionally, nurses may offer full-service transferring management. It is advisable to teach first aid to nursing students. Using peer education strategies, people can share their healthy lifestyle choices and life lessons with others (Mishra, Rani, Bhardwaj, 2017).

Nursing students have poor knowledge about safe working conditions during injuries, so most of them must be motivated to learn about first aid and basic life support which are components of chain survival for a person. Basic first aid training prepares

students to react to situations and provide immediate, efficient management for a wide variety of incidents as; wound, burn, epistaxis, fracture, bleeding, fainting and cardiopulmonary resuscitation training (Abd El-Hay, Ibrahim & Hassan, 2015).Because motivated nurses can assist victims, nursing motivation is a crucial professional ability. Additionally, nurses may offer full-service transferring management. It is advisable to teach first aid to nursing students. Using peer education strategies, people can share their healthy lifestyle choices and life lessons with others (Mishra, Rani & Bhardwaj, 2017).

Role of the community health nurse include teacher, advocator, manager, leader, coordinator, communicator, team player, researcher, counselor, innovator, critical thinker, delegator, advocator, motivator. They supplement the work of hospital and speciality doctors and help residents live healthier lives (World Health Organization, 2017).Community nurses who are experienced in first aid become invaluable support not only to the patients, but the information they can provide proves to be critical to professional emergency responders and medical practitioners (Ismail, Farouk & Sabaq, 2016).Primary prevention such as education program that helps the public identifies, understand, and respond to road traffic injuries are considered cost effective. Community health nurses are better positioned to educate community on road traffic injuries prevention and first aid measures (Mobarak, Afifi & Qulali, 2017).

Significance of the study

Injury is one of the top global causes of illness and mortality. According to a survey conducted in Egypt, more than 40% of students suffered injuries the year before (Helal et al., 2018). Another study revealed that fractures (37.5%), wounds (31.4%), and burns (15.6%) were more common among college students. In relation to the setting in which the injury happened, they were more likely to be hurt on the street than at home (Halawa et al. 2015). Peer education is to assist young people in acquiring the knowledge, attitudes, and skills necessary to change their behavior for the better. This study intended to evaluate how peer education method affected Port Said nursing students' first aid knowledge and practices.

AIM OF THE STUDY

To evaluate effect of peer education method on knowledge and practice of selected first aid measures among Port Said faculty nursing students.

Objectives

1. Assess the nursing student's knowledge about selected first aid measures.
2. Assess the nursing student's practice about selected first aid measures.
3. Design first aid program for nursing students based on peer education method.
4. Implement first aid program for nursing students based on peer education method
5. Evaluate effect of peer education method on nursing students' knowledge and practice of selected first aid measures.

Hypothesis

Peer education method has positive effect to improve nursing students' knowledge and practice of selected first aid measures.

SUBJECTS AND METHOD

A. Technical design

Study design

A quasi experimental design was utilized with pre-& posttest in this study

Study setting

The study was conducted in faculty of nursing, Port Said University. Faculty of nursing consist of six floor and faculty include five laboratories (Pediatric, Medical & surgical, obstetric, fundamental, simulation lab) and found many of administrative offices and 5 lecture halls.

Subjects

The study participants encompassed all the faculty of nursing students registered in first grade the total number of the student is 97 students (10 of them chosen randomly for pilot study and 87 enrolled in the study sample). The study sample composed of 87 nursing students (10) of them who were excellent in academic performance selected to act as peer educator and (77) students as peer group who composed of 25 males and 52 females. Studied students chosen according to the following inclusion criteria: from both sexes, free from mental disability and accept to participate in the study.

Tools for data collection

Two tools were used:

The first tool (I): A structured questionnaire sheet it was adopted from Elewa & Saad, (2017)**.** The questionnaire divided into three main parts as the following:

First part: Demographic Characteristics of the studied subjects

It was used to collect data about personal characteristics of the studied nursing students' including age, gender, marital status, parental education, parental occupation, and place of residence, were evaluated using this part.

Second part: student's characteristics regarding first aid training:

It was used to assess student's characteristics regarding first aid previous knowledge, first aid source of information, attend a training regarding first aid before and the reason for attending training of first aid.

Third part: Nursing student's knowledge questionnaire:

It was used to assess nurse student's knowledge about selected first aid measures it was consisted of (30) multiple choice questions covered the following nurse student's general knowledge about first aid (9 questions) as concept of first aid, importance of first aid, principles and basics of first aid, personal characteristics of first aider, contents of the first aid kit. Nurse student's knowledge about first aid of wounds, bleeding include (5 questions) as Consideration before cleaning a deep wound, the types of bleeding, Serious of bleeding on the victim's life, the must avoiding after stopped of epistaxis. Nurse student's knowledge about first aid of burns include (6 questions) as the types of burns, degrees of burns, Action when a fire occurs. Nurse student's knowledge about first aid of fractures include (4 questions) as types of fractures, recognize the presence of an open fracture in the victim's body. Nurse student's knowledge about first aid of fainting include (6 questions) as the first action of assessment the victim's state of consciousness, the first action in unconscious casualty, definition of fainting, common causes of fainting.

Scoring system

Nursing students' knowledge was assessed using illustrative key answers. A score of "1" was awarded for each correctly answered question, while a score of "0" was awarded for each incorrect answer. The percentages of the total scores were then interpreted as follows: Less than 60% of the total score were deemed to have a poor knowledge, 60 – 75% were deemed to have a fair knowledge, and >75% were deemed to have a good knowledge of nursing student.

The second tool (II): Observational Checklist

It was used for assessing nursing students' practical skills about selected first aid measures, it was adopted from Elewa& Saad, (2017).It was used to assess nursing students' practical skills about selected first aid measures include the following: first aid for wounds, bleeding consisted of (10 steps) such as applying firm direct pressure or clean cloth over the wound usually stops the bleeding if the wound is big. First aid of epistaxis consisted of (8 steps) such as keep the person calm, have the person sit up straight and lean forward slightly. First aid for burns consisted of (11 steps) such as clean tap water should be used, do not apply ice and ice water to burn wounds. First aid for fractures consisted of (11 steps) such as use pressure point to control bleeding, immobilizing the injury with a splint and first aid for fainting consisted of (7 steps) such as the casualty should have plenty of fresh air. If you are indoors open a window if you are indoors.

Scoring system

Correctly done were rated '1' and incorrectly done were rated '0'. The total score is 60% or more refers to be adequate practice, meanwhile total score less than 60% refers to inadequate practice.

B- Operational design

Tools' validity

The research tools were reviewed by 9 experts (7 experts in the field of community health nursing and 2expert in the field of emergency medicine) to evaluate its clarity, relevance, completeness and easiness of implementation.

Tools' reliability

The internal consistency of the tools was evaluated using Cronbach's alpha. Knowledge (= 0.729) and Practice (= 0.786).

Fieldwork

Before conducting the study, an approval was taken from medical surgical nursing head of department and coordinator, then oral consent obtained from each student to participate in study. Data collection was carried out through four phases: assessment phase, phase of planning, phase of implementation and phase of evaluation. These phases were performed from beginning of October to the end of December 2021.

Phase (1) Assessment phase: It involved the pretest for identification of nursing student needs by using (Tool I) a structured questionnaire sheet to assess nursing student knowledge related to first aid measure and (Tool II) observational checklist was design to evaluate nursing student practice related to first aid measure. Analysis of the findings of the pretest data to help design educational interventions.

Phase (2) Planning phase: This includes creating curricula that is prioritized for nursing students' requirements. The intervention focused on the understanding and use of proper first aid, the choice of suitable instructional techniques like lectures and group discussions, and the choice of suitable educational material like handouts, lab demonstration, and simulations.

Phase (3) Implementation phase:

All studied students informed about the purpose of the study. The researcher attends two days per week from 9 am to 2 pm according student schedule day. Frist aid program was implemented through 9 sessions. The program theoretical phase composed of 4 sessions (two sessions per day). First session involves introduction to the program, definition of first aid, aim, principles of first aid, components of first aid kit and first aid for wound and bleeding. Second session include first aid for epistaxis and fainting. Third session include first aid for fracture and fourth session about burn.

The program practical phase was implemented through 5 sessions (one session per day). First session involves practical training about first aid for wound and bleeding.

Second session include first aid for epistaxis. Third session include first aid for fainting and fourth session include first aid for fracture and fifth session include burn first aid. Each session took about 35 min to one hr.

Studied student was divided in to two main groups first group is peer educator group which composed of 10 students with excellent academic achievement and they were trained first by researcher. The other group is peer group which composed of 77 students, they were divided into 10 groups and they were trained by peer educator. The program was developed in simple and concise form, using many teaching techniques and aids as data shows, videos and lab redemonstration. Researcher designed booklet that systematically organize information on selected first aid to cover gaps in students' knowledge and practice of first aid. Data collection start from the first October to the end of December 2021.

Phase (4) Evaluation phase: Immediately after intervention program posttest evaluation was done. nursing student's theoretical knowledge was evaluated using tool I (A structured questionnaire sheet), while nursing student' practice was evaluated by using tool II observational checklist.

Pilot study

Pilot study was conducted on 10% (10 students) of the nursing students. Pilot study was omitted from the main study population and were chosen at random to test the tool prior to beginning data collection. The pilot study's objectives were to assess applicability, delineate the study tool, and determine how long it would take to finish it. Additionally, it assisted in spotting future difficulties and problems with data collecting. Based on the findings of the pilot research, the tool underwent some adjustments, reformulations, and reorganizations. Pilot study was carried out at the beginning of semester for one week.

Ethical considerations

The study protocol was approved by the scientific ethical research committee at faculty of nursing, Port Said University (Code No. NUR 14/12/2020,24). Explain the aim of the study to each participant included in the study to take his permission to participate, and to be familiar with the importance of his participation. Nursing students gave their

verbal approval to take part in the study. Participants got guarantees that any information they provided would be kept private and used only for research. Anonymity, secrecy, privacy, security, and protection for participants were all assured. Participants were not negatively impacted by this intervention. Learned students will be made aware of their freedom to decline or leave at any time without cause or consequences.

C. Administrative design

Formal approval for data collection in the nursing faculty was obtained from the faculty administrative staff by submitting a formal letter from the Vice Dean of Nursing, University of Port Said. Meetings and discussions were held between researchers and nursing student administrators to make nursing students aware of research goals and objectives and to establish better collaboration during the implementation phase. Verbal consent was obtained from nursing student's prior gathering the needed data.

D. Statistical design

Utilizing SPSS software (Statistical Package for the Social Sciences, version 23, SPSS Inc., Chicago, IL, USA), the collected data were arranged, tabulated, and statistically analysed. The Mann-Whitney test (x2) was used to compare the size and percentage (frequency) of the two groups. The Kruskal-Wallis test's p-value (H) was used to compare three or more sets of nonparametric data, while the chi-square test's p-value (x2) was used to analyse the association between two sets of nonparametric data. data without parameters. We assumed statistical significance at p-values 0.05 in order to evaluate the findings of the significance tests. The correlation between variables was examined using Spearman's correlation test. The most accurate model for student performance and knowledge was predicted using multi-row regression analysis.

RESULTS

Table (1) shows the distribution of sociodemographic of the studied nursing students. It revealed that greater than half (61.0%) of the studied nursing students are aged 18 years. Greater than two third (67.5%) of students were females (98.7%) of them were single. In addition, more than two-thirds (68.8%) live in urban. According to education of their father (28.6%) of fathers have secondary education comparing to (37.7 %) of mothers. Regarding work of fathers and mothers (48.1%) and (58.4%) were employees respectively.

Table (2) shows a comparison between the student knowledge related to first-aid before and after implementation of the peer education method. Bleeding, epistaxis & wound knowledge was good (11.7%) before intervention program of peer education then the percentage elevated to reach (55.8 %) post intervention program. Fainting knowledge of the studied nursing student was good 3.9% pre- intervention program of peer education then the percentage elevated to reach (55.8 %) post implementation. Total score of knowledge related to first-aid was 2.6%. pre- intervention program of peer education and post intervention program that (36.4%). A statistically significant variance noticed among the pre- intervention program and post- intervention program regarding total score of knowledge related to first-aid (general knowledge, bleeding, epistaxis & wound, burn, fracture, fainting) with p-value (0.001) for all items.

Table (3) illustrates a comparison between the studied nursing student's total score of practice related to first-aid before and after intervention program of the peer education. Bleeding & wound practice of the studied nursing student was Adequate (42.9%) pre- intervention program then the percentage elevated to reach (98.7 %) post intervention program. Fracture practice of the studied nursing student was Adequate (32.5%) pre- intervention program then the percentage elevated to reach (92.2 %) post intervention program. A statistically significant variance noticed among the pre-intervention program and post- intervention program regarding total score of practice related to first-aid (bleeding, epistaxis & wound, burn, fracture, fainting) with p-value 0.001 for all items.

Table (4) shows a correlation matrix between students' knowledge and practice skills concerning first-aid during pre- and post- intervention program. It is obvious from the table that there is a significant relation among post- intervention program knowledge and post- intervention program practice with (P=0.032).

Table (5) shows a multiple linear regression analysis for practice which demonstrates that information given to students' performance was the only significant independent positive predictor for high student's performance. This model explains that only (9%) from students have a variation from this model.

Table (6) shows a multiple linear regression analysis for knowledge which demonstrates that gender and times of training had significant positive predictors for high student's knowledge, which illustarte that only (14.1%) from students have a variation from this model.

Table (1): Distribution of sociodemographic of the studied nursing students (n=77).

Variable	Sample (n=77)	
	No	**%**
Age in Years		
18	47	61.0
19	24	31.2
20	6	7.8
Mean ±SD	18.47±0.644	
Gender		
Male	25	32.5
Female	52	67.5
Marital status		
Single	76	98.7
Married	1	1.3
Resident		
Rural	24	31.2
Urban	53	68.8
Education of father		
Not educated	9	11.7
Read and write	13	16.9
Secondary education	22	28.6
Technical education	18	23.4
Higher education	14	18.2
Post graduate education	1	1.3
Education of mother		
Not educated	1	1.3
Read and write	16	20.8
Secondary education	29	37.7
Technical education	17	22.1
Higher education	14	18.2
Post graduate education	0	0
Work of father		
Teacher	23	29.9
Employee	37	48.1
Engineer	6	7.8
Retired	7	9.1
Not-worked	4	5.2
Work of mother		
Teacher	6	7.8
Employee	45	58.4
Engineer	15	19.5
Retired	2	2.6
Not-worked	9	11.7

Table (2): comparison between the studied nursing student's total score of knowledge related to first-aid before and after intervention program (n=77).

knowledge dimensions	Pre-implementation			After implementation			χ^2 (Sig.)
	Poor	Fair	Good	Poor	Fair	Good	
General knowledge	71(92.2)	6(7.8)	0(0)	21(27.3)	34(44.2)	22 (28.5)	6.126 (0.001*)
Bleeding, epistaxis & wound	50(64.9)	18(23.4)	9(11.7)	11(14.3)	23(29.9)	43(55.8)	5.795 (0.001*)
Burn	53(68.8)	15(19.5)	9(11.7)	14(18.2)	28(36.4)	35(45.5)	5.384 (0.001*)
Fracture	58(75.3)	12(15.6)	7(9.1)	21(27.3)	30(39.0)	26(33.8)	5.233 (0.001*)
Fainting	54(70.1)	20(26.0)	3(3.9)	12(15.6)	22(28.6)	43(55.8)	6.402 (0.001*)
Total	67(87.0)	8(10.4)	2(2.6)	5(6.5)	44(57.1)	28(36.4)	7.755 (0.001*)

*Significant (P<0.05). (χ^2) Mann-Whitney test.

Table (3): comparison between the studied nursing student's total score of practice related to first-aid skills before and after intervention program(n=77).

Observational dimensions	Pre-implementation		After implementation		χ^2	(Sig.)
	Inadequate	Adequate	Inadequate	Adequate		
Bleeding & wound	44(57.1)	33(42.9)	1(1.3)	76(98.7)	6.411	0.001*
Burn	52(67.5)	25(32.5)	14(18.2)	63(81.8)	5.603	0.001*
Fracture	52(67.5)	25(32.5)	6(7.8)	71(92.2)	6.379	0.001*
Fainting	55(71.4)	22(28.6)	18(23.4)	59(76.6)	5.642	0.001*
Epistaxis	45(58.4)	32(41.6)	10(13.0)	67(87.0)	5.217	0.001*
Total	47(61.0)	30(39.0)	4(5.2)	73(94.8)	6.143	0.001*

*Significant (P<0.05). (χ^2) Wilcoxon Matched Paired Test

Table (4) Correlation matrix among student's knowledge and practice skills concerning first-aid during pre and post intervention. (n=77)

		Knowledge	
		Pre	Post
Practice	Pre	r=0.023 P=0.862	r=0.173 P=0.132
	Post	r=-0.051- P=0.657	r=0.321 P=0.032*

r: Spearman's coefficient *: Statistically significant at $p \leq 0.05$

Table (5) best fitting model for students' performance (skills)

Coefficients [a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	.550	.871		.631	.530	-1.191-	2.291
Age	.064	.044	.184	1.474	.145	-.023-	.151
education of father	.009	.022	.053	.410	.683	-.035-	.054
Sex	.047	.060	.099	.787	.434	-.072-	.166
education of mother	-.010-	.026	-.046-	-.370-	.713	-.062-	.043
father work	.002	.028	.010	.073	.942	-.053-	.057
mother work	-.006-	.027	-.027-	-.224-	.823	-.061-	.048
Resident	.051	.062	.106	.819	.416	-.073-	.175
marital status	.114	.247	.058	.463	.645	-.379-	.608
Information	.039	.058	.084	3.666	.008*	.154	.077
Source	-.015-	.017	-.108-	-.853-	.397	-.049-	.020
Times	.081	.083	.122	.968	.337	-.086-	.247
Reason	-.001-	.022	-.008-	-.067-	.947	-.045-	.042

R= 0.300 R square= 0.090 F= 0.527 sig.= 0.890

Table (6) best fitting model for students' knowledge

Coefficients [a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	4.177	2.222		1.880	.065	-.261-	8.615
Age	-.156-	.111	-.170-	-1.402-	.166	-.378-	.066
education of father	.023	.057	.052	.413	.681	-.090-	.137
Sex	.314	.152	.253	2.066	.043*	.010	.618
education of mother	-.021-	.067	-.038-	-.316-	.753	-.155-	.113
father work	-.100-	.071	-.187-	-1.412-	.163	-.241-	.041
mother work	.082	.070	.140	1.174	.245	-.057-	.221
Resident	-.143-	.159	-.114-	-.901-	.371	-.460-	.174
marital status	.725	.630	.141	1.150	.254	-.534-	1.983
Information	-.150-	.147	-.125-	-1.018-	.313	-.444-	.144
Source	-.003-	.044	-.007-	-.059-	.953	-.090-	.085
Times	.171	.213	.098	3.802	.042*	-.254-	.595
Reason	-.005-	.056	-.010-	-.083-	.934	-.116-	.107

R= 0.376 R square= 0.141 F= 0.878 sig.= 0.572

DISCUSSION

Comparing learning with peer education in a classroom setting offers various benefits. It employs primary group work pillars when students collaborate in groups to learn or solve problems (stumpf, 2022). In order to appraise situations, make proper decisions, and take action, nursing students must possess a variety of knowledge and abilities (Hung, Chow, Chien, & Wong, 2021). Therefore, the purpose of this study was to evaluate how peer education techniques affected certain nursing students' understanding and use of first aid.

Regarding student's general knowledge related to first aid. The present study showed that minority of studied students have of knowledge before program, while after program intervention about more one third had a good knowledge in addition a statistically significant improvement of the studied student knowledge. This might be because peer teaching techniques was successful in raise students' levels of knowledge. Also, young age of studied students increases their ability to learn and be keener to learn. In addition, it is easy for the student to acquire knowledge from his peer as they studying together, do a certain subject or skill and peer educator and peer groups are the same age group so they can understand each other easily. Supporting the current study findings, a study conducted in Saudi Arabia by Alboliteeh, Ali, Masood and Al-enzi, (2019) found a statistically significant differences between the knowledge for the students in post-program than in preprogram. In the same line with present study results, Mohammed, (2018) who stated there is statistically significant differences between all items regarding first aid general knowledge pre and post implementation of educated program. On the other hand, Bakey, Hussein, and Al-Fayyadh, (2021) who reported that students ’knowledge was insufficient with low and moderate score, and there is no significant difference in knowledge between the students in second and fourth stage.

As regard to total score of knowledge related to first-aid before and after intervention program, the present study results found a significant variance among the pre-implementation and post-implementation regarding total score of knowledge related to first-aid (bleeding, epistaxis & wound, burn, fracture, fainting). This may be attributed to the effectiveness of intervention program of peer education on understanding, acquiring new information in addition to passion of studied student to know how to behave in similar life threatened situation. Supporting the present results, a study in

Indian by Varsha, Devyani, and Sambhaji, (2015) who noted that there was a statistically significant differences of all elements between the pre-program, immediate post the program. On the other hand, a study in Trakia by Metin, and Mutlu, (2010) who assessed the knowledge about first aid of the 134 students and noted that the study groups about first aid knowledge regarding all elements is not at an adequate level. Also, the current study was in contradiction with a study in Sri Lanka by Priyangika, and Hettiarachchi, (2015) who noted it was insufficient.

Concerning a total score of practice related to first-aid skills before and after intervention program of the studied nursing students, the present study noted a significant variance were found among the pre- and post- intervention program concerning total score of practice related to first-aid. This may be related to first-aid practice as (bleeding, epistaxis & wound, burn, fracture, fainting) are the most common problems. In addition to students understand the value of learning how to provide first aid because they regularly at the risk of becoming involved in emergencies caused by nature or at work or while operating a motor vehicle. Nurse-student should be armed with the required practice and expertise of first aid which enables them to effectively intervene when faced with an emergency situation during their clinical training course and in their routine life. So, the current study focused on all practice of selected first aid that frequently occurred in daily activities of the students.

In the same line with present results, a study in Saudi Ariba by Alboliteeh, Ali, Masood and Al-enzi, (2019) who found that comparison between pre and post program total practice among students were higher during posttest compared to pretest. Conversely, the current study was in contradiction with a study in Sri Lanka by Priyangika, & Hettiarachchi, (2015) who noted that first aid practices among students was insufficient.

The current study revealed that there is no statistically significant relation between all personal characteristics' items and knowledge before and after intervention program except age. This finding might be interpreted by that the same age group students keen to accept knowledge from their peer more than any person. This may possibly be because younger people can grasp more information and comprehension than older people. The level of awareness and sensitivity of students is positively impacted by age, even at the highest levels. In the same line a study by Ramadan et al. (2021) who noted that a

significant correlation was found between age and first aid knowledge score. Conversely, the current study was disagreed with a study conducted in South India by Joseph, Kumar, Babu, Nelliyanil, and Bhaskaran, (2014) who assessed the knowledge of first aid skills among 152 students and revealed that there was no association of demographic characteristics with the level of current knowledge about first aid among the participants. Also, Elewa, and Saad, (2017) who didn't find that direct correlations between selected demographic characteristics and knowledge score. In addition, Renuka and Kamala (2019) who noted that there was no a significant association between the knowledge score and the demographic characteristics except for studied student sex.

The present study revealed that that there is a significant relation among the knowledge and practice. This is attributed to the greater systematic knowledge taught by well-educated students, which has a favorable effect on increasing levels of practice and increasing knowledge. This may also be a result of the students increasing knowledge, comprehension, and willingness to carry out these processes appropriately. Additionally, this can be connected to the idea that level of practice improves with the amount of training received. In the same context with the present results, a study by Saudi Arabia by Alboliteeh, et al. (2019) who noted that a positive correlation between knowledge and practice about pre- and post-intervention programs. In addition, Mohammed, (2018) who noted that a positive highly statistically significant correlation was established between the knowledge scores for students and the total practices scores in pre and post program.

CONCLUSION

Based on the result of the study, it can be concluded that:

In the light of the study findings, it can be concluded that peer education method had positive effect on improving the studied student level of knowledge and practice regarding first aid, in addition to there was statistically significant improvement in the studied student level of knowledge and practice regarding first aid in post program intervention compared to pre program.

RECOMMENDATION

In the light of the present findings, the following recommendations could be suggested:

1. Ongoing utilizing peer education method in teaching first aid to enhance student's knowledge and practical skills abilities.
2. Replicate the current study with a larger sample size at several universities in order to achieve more generalized result.
3. Future studies should be conducted to study long term impact of peer education on student knowledge and practice.

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تأثير أسلوب تعلم الأقران عن إجراءات الإسعافات الأولية المختارة على المعرفة والممارسات لدى طلاب كلية التمريض ببورسعيد

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الخـــلاصـــة

يعد تعليم الأقران حاليًا أحد أكثر الاستراتيجيات المعتمدة على نطاق واسع لتعزيز الصحة لطلاب التمريض، مع التركيز على رفع تقدير طلاب التمريض لذاتهم وكفاءتهم الاجتماعية بالإضافة إلى تطوير مهاراتهم. لذا فإن استخدام تعليم الأقران في تدريب الإسعافات الأولية له تأثير له تأثير أفضل في تقليل المرض والوفاة الهدف من الدراسة: تقييم تأثير طريقة تعلم الأقران على معرفة وممارسات إجراءات الإسعافات الأولية المختارة لدى طلاب التمريض في كلية بورسعيد. تصميم: تم استخدام تصميم بحث شبه تجريبي مع الاختبار القبلي والبعدي في هذه الدراسة. مكان الدراسة : أجريت الدراسة بكلية التمريض جامعة بورسعيد بمدينة بورسعيد. العينة: عينة هادفة ٧٧ طالبا من كلية التمريض بورسعيد. الأدوات: تم استخدام أداتين الأداة الأولى: استمارة استبيان تتكون من ثلاثة أجزاء ؛ الجزء الأول: الخصائص الاجتماعية والديموغرافية لطلبة التمريض ، الجزء الثاني. خصائص الطالب فيما يتعلق بتدريب الإسعافات الأولية ، الجزء الثالث. معلومات طلبة التمريض الخاصة بالإسعافات الأولية الأداة الثانية : استمارة الملاحظة المستخدمة لتقييم المهارات العملية لطلاب التمريض نتائج: كانت النتيجة الإجمالية للمعرفة المتعلقة بالإسعافات الأولية أقل من (٢.٦٪) قبل البرنامج وبعده كان هناك تحسن في إجمالي المعرفة بنحو (٣٦.٤٪). فيما يتعلق بممارسة الاسعافات الاولية للنزف والجروح لطلاب التمريض كانت (٤٢.٩٪) قبل البرنامج وبعده كان هناك تحسن بنسبة (٩٨.٧٪). فيما يتعلق بممارسة الاسعافات الاولية للكسر لطلاب التمريض كانت (٣٢.٥٪) ما قبل البرنامج ثم ارتفعت النسبة لتصل إلى (٩٢.٢٪) بعد البرنامج. خاتمة: وخلصت الدراسة إلى أن البرنامج التعليمي نجح في هدفه بإحداث تغيير إيجابي في معرفة وممارسة تربية الأقران. التوصيات: الاستمرار في استخدام أسلوب تعليم الأقران في تدريس الإسعافات الأولية لتعزيز صحة الطلاب وتحسين معارف ومهارات الطلاب.

الكلمات المرشدة: الإسعافات الأولية ، طلاب التمريض ، المعرفة ، تعلم الأقران، الممارسات.