Effect of Nurse Led Training Program on Nurses' knowledge regarding Violence against Women and Safe Women's services

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Abstract

Background: Violence against women is widespread, according to estimates from the World Health Organisation (WHO), more than one-third of women worldwide have been victims of either physical or sexual violence. **Aim**: to evaluate effect of Nurse Led Training Program on nurses' knowledge regarding violence against women and safe women's services. **Design**: Quasi experimental research design was utilized in this study. **Setting**: It was conducted at Qolta MCH, Old El-Eman Hospital& El-Arbeheen Hopital at Assuit city. **Sample**: purposive sample of all nurses working in the previous mentioned settings (144). **Tool**: Structured interviewing questionnaire. **Results**: There is highly statistical significance improvement on total knowledge level about violence against women and safe women's services following implementation of training program. **Conclusion**: Implementation of the Nurse Led Training Program was effective in improving nurses' knowledge regarding violence against women and safe women's services. **Recommendations**: Implementing this Nurse Led Training Program with A booklet for nurses on the other health centers to improve & update their level of knowledge regarding violence against women and available safe women's services.

Keywords: Nurse Led Training Program, Knowledge, violence against women, safe women's services

Introduction

Violence against women is widespread, according to estimates from the World Health Organisation (WHO), more than one-third of women worldwide have been victims of either physical or sexual violence. **(WHO,2021).** Intimate partner violence is a severe international public health issue and a serious violation of women's human rights. This violence includes abusive acts committed during marriage, cohabitation, or any other type of partnership that involves physical, sexual, or psychological injury. It also includes emotional and financial abuse and manipulative acts **(Sardinha et al., 2022).**

Physical, sexual, emotional, cultural/spiritual, and financial abuse are all types of domestic violence, as well as a variety of other coercive, intimidating, and dominating behaviors (Doran and van, 2022). Inequalities in income and education, exposure to other forms of violence, gendered cultural norms and racial or class-

based discrimination are Contextual factors responsible for violent behaviors towards women (Mannell et al., 2021) Socioeconomic disadvantage, poor mental health, unplanned pregnancies, alcohol misuse by a partner and a history of childhood abuse are risk factors for domestic violence, while older age has been confirmed as a protective factor **(Ebert et al., 2021).**

Globally, violence against women (VAW) has detrimental effects on the health and wellbeing of women. Violence against women (VAW) not only violates the human rights of women, but it also has negative effects

on the economy and society. Violence victims suffer physical and emotional pain, decreased labour productivity, and salary loss, all of which have an adverse impact on their children's health and education **(Alesina et al, 2020).**

The american Nurses Association promotes the training of registered nurse in assessment, prevention, intervention, and referral techniques for domestic violence. Healthcare personnel should be the first to help victims of domestic violence. In order to recognize violence against women, record it, and help victims get the resources and support them, it is essential to have education and know policies & protocols in place **(Arrab et al., 2018).**

Nurses play a crucial role in identifying victims and providing access to help. However, obstacles to effective prevention and care include victim-blaming, stereotypical and gendered attitudes that normalise violence in

intimate partner relationships, and inadequate preparation in undergraduate university courses on gendered violence, screening, and management strategies to deal with it. Increased training is necessary, according to studies on DV screening barriers, to improve appropriate clinical responses **(Doran and van, 2022).**

Significance of the study

Violence against women is a universal reality that exists in all societies and in all cultures, irrespective of socioeconomic condition. In spite of the fact that violence against women occurs everywhere, its incidence varies greatly both within and between nations. According to recent estimates, between 10% and 53% of women have experienced physical or sexual abuse **(Mannell et al, 2022).** While violence against women is widespread in many places of the world, Sub-Saharan Africa exhibits especially high levels

of it, and it is widely acceptable in the continent **(Alesina et al, 2020).** In Egypt 26% of married women get violated physically and/or sexually by intimate partner violence **(Arrab et al., 2018).**

Nurses play a critical role in identifying, reducing, and preventing domestic abuse. However, other obstacles to screening that nurses must overcome include a lack of knowledge, training, protocols, and administrative support **(Devries et al., 2021) .** So, this study aimed to implement and evaluate effect of Nurse Led Training Program on nurses' knowledge regarding violence against women and safe women's services

Aim of the study

This study aimed to assess effect of Nurse Led Training Program on nurses' knowledge regarding violence against women and safe women's services through the following objectives;

1.Assessing nurses' knowledge regarding violence against women and safe women's services
2.Implementing Nurse Led Training Program regarding violence against women and safe women's services for nurses working at Qolta MCH, Old El-Eman Hospital& El-Arbeheen Hopital at Assuit city
3.Evaluating effect of Nurse Led Training Program on nurses' knowledge regarding violence against women and safe women's services.

Research Hypotheses:

Nurse Led Training Program regarding violence against women and safe women's services would have positive effect on nurses' knowledge

Operational definitions:

Led Training Program: is any type of instruction that takes place in a training space, which is often an office, classroom, or conference room. There

May be one or multiple instructors for this type of instruction. Additionally, they impart knowledge or skills to a person or group through talks, lectures, presentations, and demonstrations.

Violence against women: any act of gender-based violence, whether committed in public or privately, that causes or is likely to cause bodily, sexual, or mental injury or suffering to women. This includes threats of such behavior as well as coercion and arbitrary deprivations of liberty.

Subjects and methods:

Research Design:

In this study, Quasi experimental design with pretest and posttest was used.

Subjects:

Setting:

This study was carried out at Qolta MCH, Old El-Eman Hospital& El-Arbeheen Hopital in Assuit city**.** These three health settings involved various maternal health services in Assuit City's

east and west districts, which were utilized to cover a range of nurses employed at these locations.

Sample:

A purposive sample was utilized in this study**.**

Sample size:

All staff nurses (144) working in the previous mentioned health settings.

Sample size calculation:

The study sample consisted of all staff nurses (144) working in the previous mentioned health settings who agree to participate in the program.

Tools of data collection:

Tool I: Structured interviewing questionnaire

It was developed by the researcher and included three parts.

Part I: It consisted of personal data as age, residence, marital status, professional qualification, place of

work, years of experience, shifts, property of the house and if they receive similar teaching program about violence against women

Part II: It consisted of previous history of exposure to violence if the nurse exposed to the violence and type of this violence

Part III: It consisted of 9 open ended questions that created by the researchers to assess nurses' knowledge about violence against women and safe women's services as definition, types of violence against women, Factors associated with intimate partner violence, reasons, consequences preventive measures, forms of services provided &types of services provided.

Knowledge scoring system:

Each item was scored as (1) for a correct and (0) for incorrect answer. The total score involved 83(as the open questions contained sub items). These scores converted into a percent score, and classified as the following: **inefficient** if the percent score is ≤75% (63) and **efficient** if percent score is >75% (63).

The knowledge items were about

The definition of violence against women, types of violence against women, Factors associated with intimate partner violence and sexual violence against women, reasons of violence against women, consequences of violence against women, preventive measures, forms of services provided &types of services provided, and knowledge about presence of safe woman clinic.

Content validity:

Three experts in the disciplines of maternity and newborn health nursing and community health nursing evaluated the study tool for content validity and modifications were done

Content reliability:

Cronbach's alpha reliability test was used to evaluate reliability, and the result was 0.940.

Ethical and legal considerations:

The study was ethically approved by nursing faculty's scientific research ethics committee before the study began. The Qolta,Old El Eman Hospital,El Arbeheen Hopital managers were asked for official approval. The purpose and nature of the study, which didn't include any injury or harm, was explained to the nurses prior to data collection. After that , the nurses provided their oral consent to participate in the study. The nurses were informed that taking part in the study was entirely voluntary and that they had the option of leaving at any moment.

Pilot study:

10% of the sample(14) were subjected to a pilot study to evaluate the tools' usability and clarity.

Procedure:

Actual fieldwork involved development, implementation, and evaluation of Nurse Led Training Program. This took five months from December 2022 to April 2023.

Preparatory phase:

To gain a thorough theoretical understanding of the numerous aspects of the research topic, the researchers reviewed both recent and older literature that was pertinent to the topic of the study. The researchers prepared the teaching sessions on violence against women and safe women's services to fill in any gaps in knowledge among nurses. The researchers also prepared an educational booklet

containing current, evidence based data on violence against women and safe women services to help nurses improve their knowledge.

The implementation phase:

Pre intervention stage (Assessment)

Prior to the Nurse Led Training Programme, the researcher conducted in-person interviews with the nurses. During each interview, the researcher greeted and introduced herself to the

nurse, explained the nature and purpose of the study, and then obtained an oral consent from each nurse. The researcher next evaluated their personal data before conducting a face-to-face pretest structured knowledge questionnaire to gauge their awareness with violence against woman.

Intervention stage (Nurse Led Training Program)

In order to facilitate learning and allow each nurse to engage in the discussion, the researcher divided the nurses into small groups, each of contained 4-8 nurses. After that, a meeting with each group was held. The Nurse Led Training Program contained four interactive sessions for each group, lasting a total of two hours. Each session lasted half an hour. After the nurses had finished their duties, sessions were held at a time that was most convenient for them. Teaching sessions were given to the nurses through lectures and group discussions while using audio-visual materials like power point,movies,images,and posters.

At the initial meeting, a program orientation was elaborated including the justification, significance of the topic, time, and location of the sessions.

Sessions content:

The first session: The researcher began by greeting the nurses and illustrating the intended learning outcomes of this session**.** Then researcher defined violence against women, outlined its causes and risk factors, and ultimately summarized the session and discussed the nurses' inquiries.

The second session: The researcher began with a discussion about the previous session and the intended learning outcomes of this session. Then, the researcher explained classification of violence against women, signs and symptoms of it, consequences of it and ultimately summarized the session and discussed the nurses' inquiries.

The third session: The researcher

began with a discussion about the previous session and the intended learning outcomes of this session. Then, the researcher illustrated the Preventative measures of violence against women.

The Fourth session: The researcher began with a discussion about the previous session and the intended learning outcomes of this session. Then, the researcher illustrated the forms and

types of available safe women's services .A booklet containing the recent and evidence-based information about violence against women and safe women's services was distributed to the nurses to use it as a guide to upgrade their knowledge.

Evaluation:

An evaluation of the effect of the program on improving the nurses' knowledge about violence against women was done using the same tools after two months from the application of the program.

Statistical analysis

The statistical package for the social science (SPSS) version 26 was used for data entry and analysis. For continuous data, the mean and standard deviation (SD) for each

variable had a normal distribution. The categorise statistics were presented as numbers and percentages. The t-test was employed to compare variables using continuous data. McNemar tests were used to compare variables using categorised data. Statistics were considered significant for P-values under 0.05.

Results:

Table (1) Illustrated that 48.6% of the studied nurses had an age group from 25-30 a years with a mean±SD of 25.72±5.13, about 79.1% and 73.6% of them were married and lived in rural areas respectively. Regarding qualifications about 59.7% of the studied nurses had a diploma or secondary nursing certificate, 48.8%

worked at El Arbeheen Hospital, about37.5% of them had a 2-5 years of experience, and 55.6% worked both shifts day and night. Also 87.5% of them lived in rent apartment. Concerning exposure to previous violence, about 18.8% of the studied nurses were exposed to violence, from them 74.1% exposed to different types
of violence.

Figure (1): Demonstrated that only 8.3% of the studied nurses received training about violence against woman.

Figure (2): Showed that only 10.8% of the studied nurses know that there was a clinic (safe woman) at Assuit University that provides counseling about violence against woman.

Table (2): Reported that there were highly statistically significant difference between pre and post intervention regarding definition and persons who practice violence against woman p-value <0.01 for all item.

Table (3): Revealed that there were highly statistically significant difference

between pre and post intervention regarding different kinds of violence against woman p-value <0.01 for all item.

Table (4): Showed that there were highly statistically significant difference between pre and post intervention regarding factors associated with intimate partner violence and reasons for violence against woman p-value <0.01 for all item.

Table (5): Showed that there were highly statistically significant difference between pre and post intervention regarding consequences and preventive measures regarding violence against woman p-value <0.01.

Table (6): Showed that there were highly statistically significant difference between pre and post intervention regarding forms of services provided and type of services regarding violence against woman p-value <0.01.

Figure (3): Reported that 36.8% of the studied nurses had their information about violence against woman from studying and 28.5% of them gained information from work.

Figure (4): Reported that 31.9% of the studied nurses had efficient knowledge about violence against woman in pre intervention, while after intervention, 79.9% of them had efficient knowledge about violence against woman, with highly statistically significant difference between pre and post intervention p-value <0.01.

Table (7): Revealed that there were correlation between total knowledge in pre intervention and nurses' residence,
marital status, qualifications and working shifts. While after intervention there were correlation between total knowledge and nurses' marital status, qualifications, working shifts and property of the house.

Results

Table (1) Distribution of the studied nurses according to their personal data and previous violence history (N= 144):

Personal data	N	%
Age/years:		
< 25 year	46	31.9
25-30 years	70	**48.6**
>30 years	28	19.5
Age Mean±SD	**25.72±5.13**	
Residence:		
Urban	38	26.4
Rural	106	**73.6**
Marital status:		
Married	114	**79.1**
Single	26	18.1
Divorced	2	1.4
Widow	2	1.4
Qualifications:		
Bacolorate	6	4.2
Nursing Institute	52	36.1
Diploma	86	**59.7**
Place of work:		
Qolta	35	24.3
Old El Eman Hospital	43	29.9
El Arbeheen Hopital	66	**45.8**
Years of experience:		
<2 years	38	26.4
2-5 years	54	**37.5**
More than 5 years	52	36.1
Shifts:		
Day time shifts only	64	44.4
Rotatory day and night shifts	80	**55.6**
Property of the house:		
Owner	18	12.5
Rent	126	**87.5**
Previous exposed to violence:		
Yes	27	**18.8**
No	117	81.2
If yes, types of violence:		
Verbal only	7	25.9
Psychological only	0	0.0
Physical only	0	0.0
Sexual only	0	0.0
More than one violence	20	**74.1**

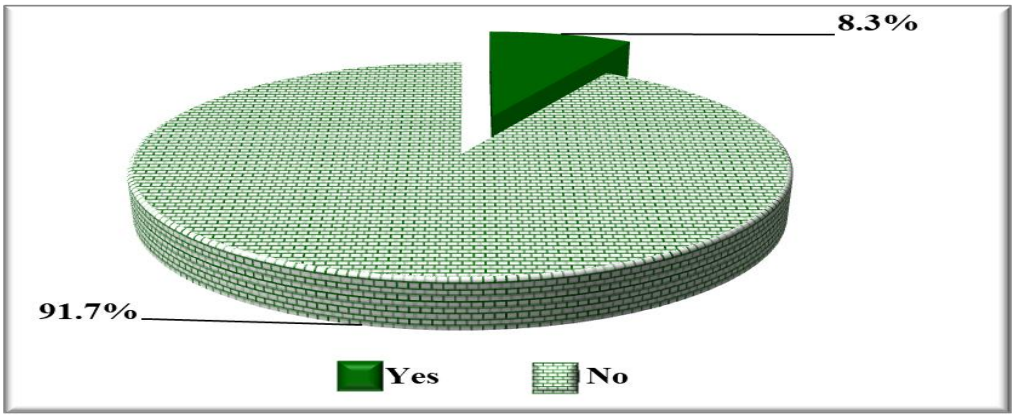


Figure (1) distribution of the studied nurses according to receiving any training program about violence against women (N= 144):

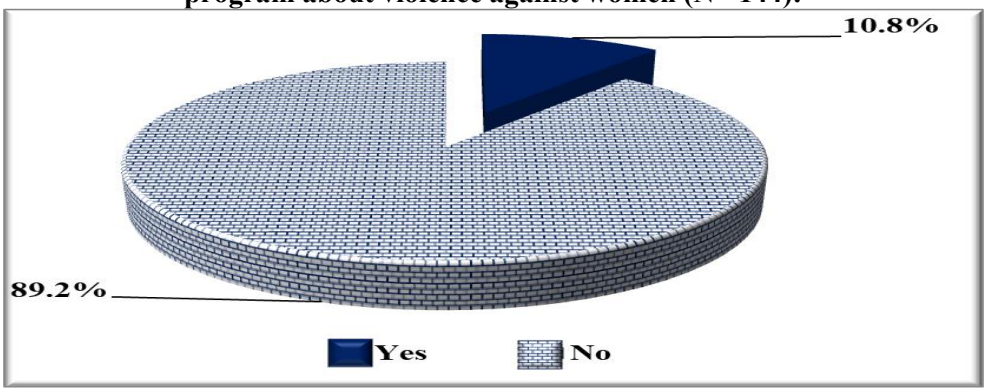


Figure (2) Distribution of the studied nurses according to know the presence of safe woman clinic at Assuit University that provides service regarding violence against women (N= 144):

Table (2) Distribution of the studied nurses according to their knowledge about definition and persons who practice violence against women in pre and post intervention (N= 144):

Items	Pre intervention		Post intervention		p-value
	N	%	N	%	
Definition of violence:					
Correct	84	58.3	127	88.2	**0.001****
Incorrect	60	41.7	17	11.8	
Persons who practice violence against women:					
Husband					
Yes	106	73.6	132	91.7	**0.001****
No	38	26.4	12	8.3	
Father					
Yes	76	52.8	108	75.0	**0.001****
No	68	47.2	36	25.0	
Brother					
Yes	74	51.4	101	70.1	**0.001****
No	70	48.6	43	29.9	
Mother					
Yes	62	43.1	88	61.1	**0.001****
No	82	56.9	56	38.9	
Grand father					
Yes	60	41.7	113	78.5	**0.001****
No	84	58.3	31	21.5	
Work boss or collages					
Yes	86	59.7	121	84.0	**0.001****
No	58	40.3	23	16.0	

McNemar Test

(**) Highly statistical significant difference (p-value <0.01)

(*)Statistical significant difference (p-value <0.05)

No statistical significant difference (p-value >0.05)

Table (3) Distribution of the studied nurses according to their knowledge about different kinds of partner violence in pre and post intervention (N= 144):

Items	Pre intervention				Post intervention				p-value
	Yes		No		Yes		No		
	N	%	N	%	N	%	N	%	
Intimate partner control behavior Shouting									
Take decision on his own	108	75.0	36	25.0	127	88.2	17	11.8	**0.001****
Shatter ambitions and hopes of subject	80	55.6	64	44.4	124	86.1	20	13.9	**0.003****
Financial abuse	104	72.2	40	27.8	125	86.8	19	13.2	**0.001****
Embarrassment in front of others	92	63.9	52	36.1	120	83.3	24	16.7	**0.002****
Restricting her contact with family	78	54.2	66	45.8	110	76.4	34	23.6	**0.001****
Locks partner inside house	90	62.5	54	37.5	117	81.3	27	18.8	**0.001****
Leaves you without money allowance	84	58.3	60	41.7	113	78.5	31	21.5	**0.001****
Spying on you	92	63.9	52	36.1	126	87.5	18	12.5	**0.001****
Threatening violence									
Threatening to obey orders	82	56.9	62	43.1	121	84.0	23	16.0	**0.001****
Threatening in front children	64	44.4	80	55.6	124	86.1	20	13.9	**0.001****
Threatening with finger	82	56.9	62	43.1	124	86.1	20	13.9	**0.001****
Threatening with knives	82	56.9	62	43.1	124	86.1	20	13.9	**0.001****
Death threatening	84	58.3	60	41.7	127	88.2	17	11.8	**0.001****
Threatening with divorce	80	55.6	64	44.4	124	86.1	20	13.9	**0.001****
Burn threatening	88	61.1	56	38.9	122	84.7	22	15.3	**0.001****
Physical violence									
Beating of children	94	65.3	50	34.7	128	88.9	16	11.1	**0.001****

Beating	82	56.9	62	43.1	125	86.8	19	13.2	**0.001****
Pinching	84	58.3	60	41.7	128		16	11.1	**0.001****
Throwing things at you	66	45.8	78	54.2	119	82.6	25	17.4	**0.001****
Inflict burn on wife	80	55.6	64	44.4	136	94.4	8	5.6	**0.001****
Abortion	76	52.8	68	47.2	134	93.1	10	6.9	**0.001****
Sexual violence	58	40.3	86	59.7	115	79.9	29	20.1	**0.001****

McNemar Test

(**) Highly statistical significant difference (p-value <0.01)

(*)Statistical significant difference (p-value <0.05)

No statistical significant difference (p-value >0.05)

Table (4) Distribution of the studied nurses according to their knowledge about factors associated with intimate partner violence and reasons for violence in pre and post intervention (N=144):

Items	Pre intervention				Post intervention				p-value
	Yes		No		Yes		No		
	N	%	N	%	N	%	N	%	
Factors associated with intimate partner									
Lower levels of education	98	68.1	46	31.9	130	90.3	14	9.7	**0.001****
Past history of exposure to violence	90	62.5	54	37.5	130	90.3	14	9.7	**0.001****
Marital discord and dissatisfaction	90	62.5	54	37.5	112	77.8	32	22.2	**0.003****
Difficulties in communicating between partners.	108	75.0	36	25.0	126	87.5	18	12.5	**0.006****
History of exposure to child maltreatment	94	65.3	50	34.7	130	90.3	14	9.7	**0.001****
Witnessing family violence	110	76.4	34	23.6	126	87.5	18	12.5	**0.005****
Antisocial personality disorder	94	65.3	50	34.7	127	88.2	17	11.8	**0.001****
Harmful use of alcohol	104	72.2	40	27.8	126	87.5	18	12.5	**0.002****
Harmful masculine	80	55.	64	44.4	112	77.8	32	22.2	**0.001***

behaviors, including		6							*
Having multiple partners or attitudes that condone violence	88	61.1	56	38.9	118	81.9	26	18.1	**0.001****
Community norms that privilege or ascribe higher status to men and lower status to women	82	56.9	62	43.1	114	79.2	30	20.8	**0.001****
Low levels of women's access to paid employment; and low level of gender equality (discriminatory laws, etc.).	94	65.3	50	34.7	116	80.6	28	19.4	**0.002****
Reasons for violence from the women's point of view:									
Financial constraints	86	59.7	58	40.3	127	88.2	17	11.8	**0.001****
Children as a cause	68	47.2	76	52.8	120	83.3	24	16.7	**0.001****
Smoking of husband	84	58.3	60	41.7	123	85.4	21	14.6	**0.001****
Husband work	94	65.3	50	34.7	129	89.6	15	10.4	**0.001****
Exposure of husband to violence in his family	104	72.2	40	27.8	128	88.9	16	11.1	**0.002****
Wife herself	80	55.6	64	44.4	106	73.6	38	26.4	**0.001****
Unemployment	86	59.7	58	40.3	113	78.5	31	21.5	**0.001****
Husband addiction	106	73.6	38	26.4	120	83.3	24	16.7	**0.018***

McNemar Test
(**) Highly statistical significant difference (p-value <0.01)
(*)Statistical significant difference (p-value <0.05)
No statistical significant difference (p-value >0.05)

Table (5) Distribution of the studied nurses according to their knowledge about consequences and preventive measures of violence in pre and post intervention (N=144):

Items	Pre intervention				Post intervention				p-value
	Yes		No		Yes		No		
	N	%	N	%	N	%	N	%	
Consequences of violence on women:									
-Fear	110	76.4	34	23.6	128	88.9	16	11.1	**0.012***
-Anger	96	66.7	48	33.3	132	91.7	12	8.3	**0.001****
-Stress	106	73.6	38	26.4	134	93.1	10	6.9	**0.001****
-Humiliation feelings	116	80.6	28	19.4	132	91.7	12	8.3	**0.011***
-Depression	108	75.0	36	25.0	134	93.1	10	6.9	**0.001****
-Guilty sensation	90	62.5	54	37.5	122	84.7	22	15.3	**0.001****
-Desire to take revenge	104	72.2	40	27.8	130	90.3	14	9.7	**0.001****
-Desire to leave work	86	59.7	58	40.3	134	93.1	10	6.9	**0.001****
Consequences of violence on work productivity									
Not satisfied and bored of job	74	51.4	70	48.6	134	93.1	10	6.9	**0.001****
Decreased interest to work	76	52.8	68	47.2	118	81.9	26	18.1	**0.001****
Stressed of job	102	70.8	42	29.2	122	84.7	22	15.3	**0.002****
Humiliation feelings at work	112	77.8	32	22.2	133	92.4	11	7.6	**0.002****
No rights and loss of justice	100	69.4	44	30.6	124	86.1	20	13.9	**0.001****
Decreased efficiency at work	85	59.0	59	41.0	121	84.0	23	16.0	**0.001****
Preventive measures of violence:									
Education as it is one of the factors that can contribute to	120	83.3	24	16.7	135	93.8	9	6.3	**0.002****

preventing violence against women.									
Public's awareness about women's rights	93	64.6	51	35.4	124	86.1	20	13.9	**0.001****
Redefinition of gender roles and masculinity.	89	61.8	55	38.2	132	91.7	12	8.3	**0.001****
Talking with husband	83	57.6	61	42.4	129	89.6	15	10.4	**0.001****
Talking with neighbors	57	39.6	87	60.4	117	81.3	27	18.8	**0.001****
Pray and recite Quran	79	54.9	65	45.1	127	88.2	17	11.8	**0.001****
Consult a doctor	69	47.9	75	52.1	121	84.0	23	16.0	**0.001****

McNemar Test
(**) Highly statistical significant difference (p-value <0.01)
(*)Statistical significant difference (p-value <0.05)
No statistical significant difference (p-value >0.05)

Table (6) Distribution of the studied nurses according to their knowledge about forms and types of services provided regarding violence in pre and post intervention (N= 144):

Items	Pre intervention				Post intervention				p-value
	Yes		No		Yes		No		
	N	%	N	%	N	%	N	%	
Forms of services provided:									
Hotline	69	47.9	75	52.1	121	84.0	23	16.0	**0.001****
Legal Support	96	66.7	48	33.3	129	89.6	15	10.4	**0.001****
Shelters	39	27.1	105	72.9	119	82.6	25	17.4	**0.001****
Awareness Raising Activities	77	53.5	67	46.5	125	86.8	19	13.2	**0.001****
Forensic Clinic	71	49.3	73	50.7	127	88.2	17	11.8	**0.001****
Types of services provided									
Provided basic information about violence to the woman	104	72.2	40	27.8	133	92.4	11	7.6	**0.001****
Offered validating and supportive	120	83.3	24	16.7	142	98.6	2	1.4	**0.001****

statements									
Talked to the woman about her needs	94	65.3	50	34.7	133	92.4	11	7.6	**0.001****
Discussed the options she may have	90	62.5	54	37.5	129	89.6	15	10.4	**0.001****
Documented domestic violence history and physical examination findings in patient's chart	86	59.7	58	40.3	127	88.2	17	11.8	**0.001****
Assessed the immediate level of danger for the woman	102	70.8	42	29.2	128	88.9	16	11.1	**0.001****
Helped the woman to create a plan to increase her and her children's safety	90	62.5	54	37.5	133	92.4	11	7.6	**0.001****
Provided education or resource materials about domestic violence to the woman (pamphlets, brochures, etc.)	84	58.3	60	41.7	133	92.4	11	7.6	**0.001****
Referred the woman to support services available within the community (psychological, legal, shelter, etc.)	73	50.7	71	49.3	133	92.4	11	7.6	**0.001****

McNemar Test
(**) Highly statistical significant difference (p-value <0.01)
(*)Statistical significant difference (p-value <0.05)
No statistical significant difference (p-value >0.05)

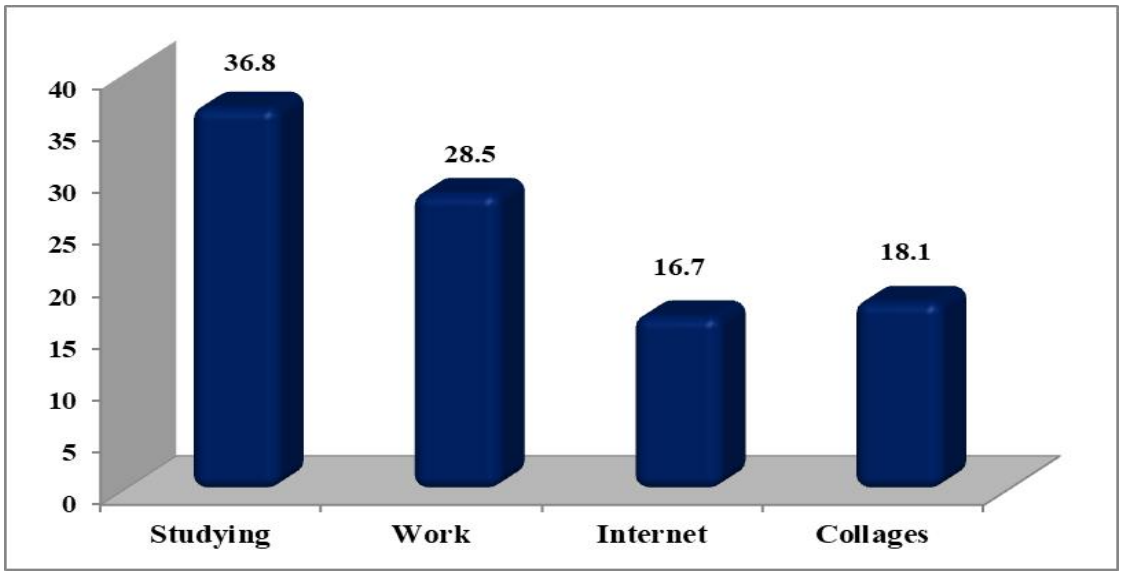
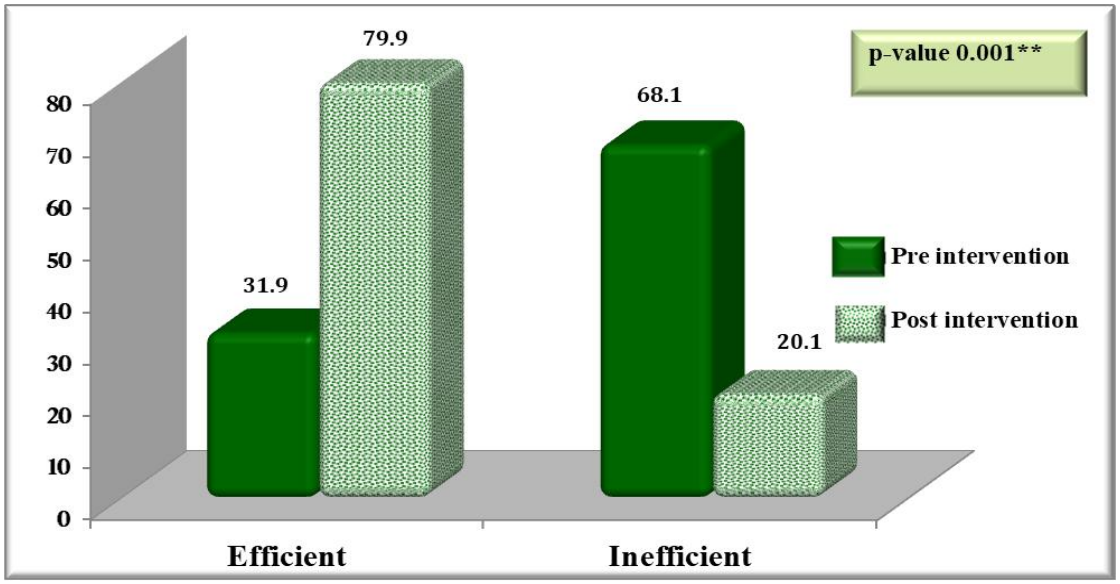


Figure (3) Distribution of the studied nurses according to their main source of knowledge about violence against woman in pre intervention (N=144):



(**) Highly statistical significant difference (p-value <0.01)

Figure (4) Distribution of the studied nurses according to total knowledge about violence against woman in pre and post intervention (N= 144):

Table (7) Correlation between the studied nurses' total knowledge about violence against woman and their personal and previous history data in pre and post intervention (N=144):

Items		Total knowledge about violence against woman	
		Pre intervention	Post intervention
Age/years	Pearson Correlation	-.035-	-.124-
	Sig. (2-tailed)	.674	.140
Residence	Pearson Correlation	**-.180-***	-.136-
	Sig. (2-tailed)	.030	.103
Marital status	Pearson Correlation	**.301****	**.168***
	Sig. (2-tailed)	.000	.044
Qualifications	Pearson Correlation	**.666****	**.468****
	Sig. (2-tailed)	.000	.000
Place of work	Pearson Correlation	-.091-	.009
	Sig. (2-tailed)	.280	.914
Years of experience	Pearson Correlation	.012	.031
	Sig. (2-tailed)	.882	.715
Shifts	Pearson Correlation	**.169***	**.216****
	Sig. (2-tailed)	.043	.009
Property of the house	Pearson Correlation	.061	**.255****
	Sig. (2-tailed)	.466	.002
Previous exposed to violence	Pearson Correlation	.072	.137
	Sig. (2-tailed)	.392	.102

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Discussion

Domestic violence is a serious public health problem that is internationally recognized due to its magnitude and the consequences on women's health and widely recognized as a serious violation of human right **(Sayed et al, 2023)** So The aim of this study was to evaluate effect of Nurse Led Training Program on nurses' knowledge regarding violence against women and safe women's services.

Concerning Nurses' knowledge regarding violence against women and safe women's services, present study reports that only one third of the studied nurses had efficient knowledge about violence against woman in pre intervention, while after intervention, more than two thirds of them had efficient knowledge about violence against woman, with highly statistically significant difference between pre and post intervention p-value <0.01.

This is well corresponded with **(Gad Abd El-kader et al, 2023),** who applied their research in Egypt to assess the impact of a training programme on nursing students' understanding of violence against women and found that the programme is an effective way to

expand nursing students' knowledge with a significant difference ($p<0.001$).

Also **(Doran and van, 2022),** who performed their research in Australia to investigate the effects of an educational training on the awareness and attitude regarding domestic violence among

undergraduate nursing students and stated that nursing students demonstrated a significant, mildly positive improvement in knowledge and attitudes towards domestic violence following educational program about domestic violence. This result may back to the majority of the studied nurses hadn't received any training program about violence against women and the training program helped them to expand their knowledge about violence against women.

With regards to the source of information before training program, it was found that around one third of the studied nurses had their information about violence against woman from studying and not gained information from work.

This is in the same line with**(Ebi et al,2019)** Who did their research in Wellaga to assess nurses ' knowledge about pressure ulcer prevention and found that around half of the nurses had

their knowledge about pressure ulcer prevention from College and University and only one quarter of them gained knowledge from the work place. This result demonstrated the significance of including violence against women in nursing curricula to raise nurses' knowledge of this issue.

By examining the relationship between the total knowledge level and personal data of the studied nurses, the current study clarifies that there are correlations between total knowledge and nurses' residence, marital status, qualifications and working shifts.

This result is corresponded with **(Ali and Saud, 2021),** who carried out their study in Iraq ,Basra city to assess nurse' s knowledge about infection of the peripheral cannula, and stated that there were significant correlations between nurses' knowledge with previous training and qualifications, and there weren't significant correlations between nurses' knowledge with nurses' gender, age

group, and years of experience.

Also with (**Ahmed et al , 2022)** who carried out their study in Egypt ,Sohag to assess the effect of instructional guideline On nurses' knowledge and preventive measures regarding ovarian hyperstimulation syndrome., and discovered that there was no statistically significant correlation between the studied nurses' knowledge and years of experience, but that there was a significant relationship between nurses' knowledge and educational level. This similarity may back to importance of qualifications in helping nurses to consolidate their knowledge.

This was disagreed with (**Devi and Upashe, 2019)** who applied out their study in Egypt ,Zagazig to evaluate the impact of an organized teaching programme on nurses' awareness of and adherence to preventative measures for ovarian hyper stimulation syndrome. and claimed that there is significant correlation with years of experience &

previous knowledge about the topic and there is no correlation with educational level. This discrepancy may back to difference between the current study and **(Devi and Upashe, 2019)** in study topic.

The present study also reveals that the majority of studied nurses had not received training about violence against women and hadn't any information about the presence of a clinic (safe woman) at Assuit University that provides counseling about violence against woman. This result is well corresponded with (**Alhalal,2020)** who conducted their research to investigate nurses' knowledge, attitudes and practices related to intimate partner violence among women in Saudi Arabian healthcare settings and found that more than half of the studied nurses had not received training related to intimate partner violence and The majority were not aware about intimate partner violence protocols or policies in their

institutions.So it is important that hospital policy must involve continous training program and workshops for nursing staff to update their knowledge and improve their awareness about the recent available services.

Conclusions

Implementation of the Nurse Led Training Program was effective in improving nurses' knowledge level about violence against women and available safe women's services.

Recommendations

1-Implementing this Nurse Led Training Program for nurses on other health centers to improve & update their knowledge level regarding violence against women and safe women's services.

2-Encouraging nurses to participate in training program and workshops to continually refresh their knowledge regarding violence against women.

3-Study effect of Nurse Led Training program on empowerment of women to protect herself from violence against women

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References

- **Ahmed,R M., Ahmed Mohammed Sabry, F., & Mohamed Toson, M.** (2022). Effect of Instructional Guidelines on In Vitro Fertilization Nurses' Knowledge and Preventive Measures Regarding Ovarian Hyperstimulation Syndrome. Egyptian Journal of Health Care, 13(1), 471-486.
- **Alesina A,Brioschi B,Ferrara L,.**(2020).Violence Against Women: A Cross-cultural Analysis for Africa.EconomicaVolume 88, Issue 349 p. 70-104. https://doi.org/10.1111/ecca.12343.
- **Alhalal E.(2020).** Nurses' knowledge, attitudes and preparedness to manage women with intimate partner violence. Int Nurs Rev. ;67(2):265-274. doi: 10.1111/inr.12584. PMID: 32301110.
- **Ali A., Saud A.,(2021).** Assessment of Nurses' Knowledge towards Infections of Peripheral Intravenous Cannula in Al-Basrah Teaching Hospital. 2021Indian

Journal of Forensic Medicine and Toxicology 15(3):2216.

- **Arrab M, and Ibrahim S,. (2018).** "Effect of Educational Training Intervention on Overcoming Nurses' Barriers to Screening Intimate Partner Violence against Women in Outpatient Clinics." American Journal of Nursing Research, vol. 6, no. 4 .198-207. Doi: 10.12691/ajnr-6-4-8.
- **Devi, R.P.L.D. and Upashe, S.P. (2019):** Staff NursesKnowledge Regarding Ovarian Hyperstimulation Syndrome - Effectiveness of Structured Teaching Programme". Acta Scientific Women's Health; 1.2: 12-17.
- **Doran F, van de Mortel T. (2022).** The influence of an educational intervention on nursing students' domestic violence knowledge and attitudes: a pre and post intervention study. BMC Nurs. 2022;21(1):109. Doi:10.1186/s12912-022-00884-4
- **Ebert C, Steinert J**.(2021).violence against women and children during COVID-19, GermanyBulletin of the World Health Organization 99 (6), 429.
- **Ebi, W.E., Hirko, G.F. & Mijena, D.A**. Nurses' knowledge to pressure ulcer prevention in public hospitals in Wollega: a cross-sectional study design. BMC Nurs 18, 20 (2019). https://doi.org/10.1186/s12912-019-0346-y
- **Gad Abd El-kader, R., Kamel Sadek, W., & Mohamed Kishk, D.** (2023). Effect of a Training Program about Violence against Women on Nursing Students' Knowledge, Opinions, and Professional Role Readiness: A quasi-experimental Evaluation. *Egyptian Journal of Health Care*, *14*(2), 352-363. doi: 10.21608/ejhc.2023.295307
- **Mannell J, Lowe H ,Brown L, et al**. (2021).Risk factors For violence against Women in high Settings: a mixed-methods Systematic review and meta-Synthesis. BMJ Global Health007704. Doi:10.1136/Bmjgh-2021-007704.
- **Sardinha L, Maheu-Giroux M, Stöckl H, Meyer SR, García-**

(2022).Global, regional, and national prevalence estimates of physical or sexual, or both, intimate partner violence against women in 2018. Lancet.26;399(10327):803-813. doi: 10.1016/S0140-6736(21)02664-7. Epub 2022 Feb 16. PMID: 35182472; PMCID: PMC8885817.

- **Sayed M. Hassaan Afaf Salah Abdelmohsen Sahar Ahmed Shafik Ons Said El-Zayat**.(2023). a health educational program to improve women's perception regarding domestic violence. HIV nursing. 23 (3) p.p945-952.
- **WHO.(2021).** Global and regional estimates of violence against women:prevalence and health impacts of intimate partner violence and non-partner sexual violence. https://www.who.int/news-room/fact-sheets/detail/violence-against-women.