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EMPOWERING WOMEN TO FACE INTIMATE PARTNER VIOLENCE THROUGH EDUCATIONAL INTERVENTION IN EGYPT

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Abstract: Intimate partner violence (IPV) is a global problem affecting millions of women worldwide. In Egypt, studies have shown that IPV is prevalent, but few educational interventions and empowerment programs have been implemented. This study aimed to evaluate the effect of an educational intervention and female empowerment in facing IPV in Egypt. The quasi-experimental research design was carried out in two maternal and child health care centers, with a sample size of 100 married women who had previously experienced IPV. The six-session educational program focused on women's empowerment, including information on the definition, risk factors, causes, signs, and symptoms, prevention, and forms of violence. Women's knowledge, attitudes, empowerment levels, forms of abusive behaviors, and preventive actions were measured through a structured interview schedule. Results showed that the educational intervention program improved women's knowledge, attitudes, and empowerment levels regarding IPV. Women who participated in the program showed positive changes in their conflict resolution strategies and lower exposure to abusive behaviors within an intimate partner relationship. The study suggests that empowering women through educational interventions may help prevent IPV and improve the quality of life for women and their families.

Keywords: intimate partner violence, educational intervention, female empowerment, conflict resolution, Egypt

1. INTRODUCTION

Home is the place where family relationships, emotional support, love, safety and shelter are built. Sometimes, these relations become tense and result in despair, anxiety and guilt due to dating or intimate partner violence (IPV). It includes physically, sexually, economic and societal, bullying, and emotional violence perpetrated by the current or past partner or spouse. Also, it affects negatively on quality of life (QOL) and family structure and bonds.(**Nicolaidis et al.,2009; Breiding et al.,2015**)

IPV is a kind of domestic violence and known as spouse or dating violence. It defines coercive control behaviors provided by the partner either a current or past partner in the shape of bodily aggressiveness, sexual coercion, psychological, economic abuse, and other controlling actions (**Karamagi, 2014**). This can arise throughout former relationship either long or short term relationships, it can be done by ex-partners after the

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relationship has endedand It has been observed that IPV is mainly caused by men against women, while it also occurs in same-sex relationships and can be perpetrated by women against men (**Sigalla G, 2017**).

IPV is a common issue that affecting millions of community. It was reported that 10% - 50% of women are exposed to IPV. Egypt occupied the second level in intimate partner violence on the world, more than 85 percent of Egyptian women subjected to IPV (**Modi et al.,2014**).

Unfortunately, many cases of IPV are not reported and the actual prevalence of IPV is much greater than documented if compared to the real life situation(**Karamagi, 2014**). Partner's psychological traits, woman's income, woman's educational level, level of woman's empowerment, woman's resistance to IPV, and social norms are among the factors that influence the prevalence of IPV (**Bonomi et al., 2007**).

The IPV affects many systems such as cardiovascular, digestive, reproductive, musculoskeletal, and nervous systems. It may cause depression, anxiety, suicidal thoughts and posttraumatic stress disorder (PTSD) symptoms. Patients exposed to IPV are at higher risk for undesired behaviors such as smoking, drinking, and nonmarital sexual relationships (**Golding, 1999; Coker et al., 2000**). Although IPV is linked to serious health and economic issues, it can be prevented.

Prevention of IPV could be achieved by different approaches like empowering women, changing women's acceptability of violence, changing men's attitudes and social norms about IPVand changing women's economic opportunities. There are various services available in Egypt for abused women as temporary or transitional living facilities, medical services, help lines services counseling, legal services and others. (**Lagdon et al., 2014; Centers for Disease Control and Prevention, 2015**).

Through health education and outreach, the community health nurse plays a vital role in preventing violence among spouses and decreasing the negative repercussions of IPV through increase awareness of the family member's especially women about intimate violence and healthy relationships to prevent its occurrence. She plays also, a central role in the female preparation as a wife and mother (**Bhalotra et al., 2021; Yang et al., 2021**). Hence, in the current study, we aimed to evaluate an effect of educational intervention and female empowerment in facing intimate partner violence.

2. Research Aim

To evaluate an effect of educational intervention and female empowerment in facing intimate partner violence.

3. Research hypothesis

The implementation of an educational intervention program expected to be modified women's` knowledge, attitude, preventive actions, empowerment levels regarding facing intimate partner violence.

4. Subjects and method

4.1 Research design: quasi experimental research design had been usedin this scientific paper.

4.2 Research settings: This research was carried out in a major two Maternal and Child Health Care Centers "Medical center of Said and Medical center of Seiger" affiliated to Ministry of Health and population at Tanta city, Egypt.

4.3 Subjects: A convenient sample of women who attended the previous settings for receiving any services. The sample size was calculated using Epi-info 7 software program. The criteria for sample size selection

were determined at 95% confidence limit, study power 80% with a 5% margin of error. The calculated sample size was found to be 70 participants and to be increased to 100 to increase the validity of the results. Inclusion criteria were married women of any age, woman living with her husband in the same home, free from mental and psychiatric diseases, able to communicate and accepting to participate in the study, exposure previously to any types of intimate partner violence.

4.4 Tool of data collection: One tool performed by the researchers based on an evaluation of existing literature and applied to participants through direct structure interview schedule. The tool contained six parts:

4.4.1. Part 1: Socio demographic data of the participants and their partner

Which contained data about women and their partner as; their age, religion, residence, family type, education levels, carrier, children numbers, roomnumbers, income, beverage consumption and smoking for their partner.

4.4.2. Part II: Women`s knowledge about intimate partner violence (**Gautamet al.,2019; Burgos-Soto et al., 2014**)

It consisted of 11 questions that assess women's knowledge regarding intimate partner violence that cover definition, types, risk factors, manifestation, consequences, violence cycle, preventive measures through empowerment. Knowledge score was calculated as follows: the complete answer was scored "two", the incomplete answer was scored "one" and don't know was scored "zero". The total knowledge score was twentytwo. A higher grade indicatesa higher level of knowledge regarding IPV.

The total grade was converted into a percentage score as follows; Poor knowledge is less than fifty percent of the total knowledge grade; fair knowledge is fifty to seventy percent and good knowledge is more than seventy percent of the total knowledge grade.

4.4.3. Part III: Women`s attitude regarding intimate partner violence (**Gautamet al.,2019; El-kestet al., 2018**)

It was prepared by the researchers after reviewing the relevant literature and it comprised of 16 questions that assess women's attitude regarding the study topic in the form of a Likert scale by five-points. A total grade of the scale was converted into a percentage score and it was classified into negative attitude ≤ 75% and positive attitude > 75 % of the total grade of the attitude.

4.4.4. Part IV: Forms of abusive behaviors within intimate partner relationship (Rodríguez-Franco et al., 2017)

Dating Violence Questionnaire-Revised (DVQ-R)was created by **(Rodríguez-Franco et al., 2017)** and it was adopted by the researchers to measure the frequency and abusive behaviors forms that occurring within intimate partner relationship. It measured five forms of abusive behaviors that the women exposure to by asking 20 items in the form of a five-point Likert scale. A total grade of the scale was converted into a percentage score and it was classified intohigh exposure >70%, moderate exposure 50-70% and lowexposure >50% % of the total grade of the attitude.

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4.4.5. Part V: Preventive behaviors toward intimate partner violence (Bonache et al., 2016)

The researchers adopted the Conflict Resolution Styles Inventory questionnaire (CRSI) which was developed by **(Bonache et al., 2016)** and included 13 statements to measure conflict resolution strategies that used by women in facing violent behaviors within intimate partner relationships. The scale depended on a fivepoint Likert scale: From 0 Never to 4 Almost always. This part was classified into three conflict resolution techniques: positive, negative resolution, and withdrawal from the conflict.The reliability of this scale was $\alpha = 0.70$.

4.4.6. Part VI: The women's empowerment scale (Lopez-Avila D, 2016)

The researchers adopted the women's empowerment scale which was developed by**(Lopez-Avila D, 2016)** and included 23 statements to measure various domains of empowerment among women as decisionmaking, sexual contact control up, education, economic and social relations in form of three points Likert-type scale: yes 2, sometimes 1 and no 0.The total grade was converted into a percentage score and it was divided into: Low level of empowerment is less than fifty percent of the total grade, moderate level of empowerment is fifty to seventy percent and high level of empowerment is more than seventy percent of the total score.The reliability of this scale was $\alpha = 0.975$.

4.5.Methods

4.5.1. Obtaining approval: Official letter to conduct the study was obtained from the Faculty of Nursing and Faculty of Medicine, Tanta University, Egypt directed to the responsible authorities (directors of previous setting) to obtain their approval and cooperation to carry out the study.

4.5.2. Ethical considerations:-

- An official permission was obtained from the ethical committee of the faculty of Medicine, Tanta University before conducting the research. Every woman was informed of the purpose, nature and benefits of the study at the beginning of the research. Moreover, the researchers confirmed that the nature of the research didn't cause any harm and/or pain for participants and they had the right to withdraw from the research at any time. Informed consent was obtained from participants with strict maintainance of confidentiality and privacy of collected data all through study.

4.5.3. Tool development:

- The tool of the study was developed by the researchers based on reviewing of the new literature. The tool was tested for validity of it`s content by a jury of 5 experts in the public health field and their opinions were considered, and final questionnaire was used. The study tool was tested for a reliability using Cronbach's Alpha test. It was computed as 0.975 for all parts of the research.

4.5.4. Conducting pilot study:

- A pilot study was done on 10 percent of the women to evaluate the clarity, applicability, reliability of the tool and the length of time needed for collecting the data among each sample. The modifications were carried out (rephrasing a question in health beliefs). These women were excluded from the study subjects.

4.5.5. The actual study

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- The program was provided by the researcher to ensure providing complete, consistent and accurate knowledge about violence and women empowerment for the study group. The researchers met women previously mentioned 3 days/week based on appropriate time detected by previous setting managers. The collection of data continued during a period from the end of September 2020 to end of the January 2021.

A tool was administered individually to each woman to complete it by herself with the attendance of the researcher to offer guidance and clarification when needed. The researchers was designed the educational intervention for violence based on their needs.

4.5.6. Developing and implementation program: this was done according to the following phases:

4.5.6.1.Assessment phase: in which the researcher used the pre designed study tool and interviewing participants individually in the predetermined setting to assess women's knowledge, practices and attitude regarding female empowerment and dating violence as well as socio-demographic data about the study subjects as a preintervention assessment. The data obtained during this phase were considered the basis for evaluation of educational program (pretest).

4.5.6.2. Planning and Implementation phases: After identifying the needs of women in the assessment phase, the researchers developed nursing educational program about women empowerment regarding IPV with simple Arabic language to be suitable for women's level of understanding. It emphasized the areas of deficit in knowledge about violence prevention and women empowerment: definition, risk factors, causes, signs and symptoms, prevention, and forms of violence . The program was divided in to six sessions, the average time of each session was 30–35 minutes. Booklets were distributed to each woman. Teaching methods included PowerPoint, small group discussions, open discussion, and brain storming.

4.5.6.3. Evaluation phase: This evaluation was conducted on the studied women two times; first time (pre-test): before the teaching program implementation (using all parts of a tool) for the women who were being researched, and second time: (post-test) three months after the teaching program implementation by using parts II, III, IV, V, VI.

4.6. Statistical analysis

Statistical Package for Social Sciences (SPSSversion 22) was used to examine the results. The frequency, percentage, range, mean, and standard deviation were determined for quantitative data analysis. The t-test was employed to compare the two means. For categorical variables, the differences were analyzed by Chi-square test(X2). Associationwereanalyzedby Pearson's correlation coefficient test. P-value of ≤0.05 was statistically significant.

5. Results

5.1. Participants' characteristics

Socio-demographic characteristics of women and their partners are described in table 1 and figure 1:

The mean age of the studied sample was 33.24□7.45 years and the majority of them lived in urban areas, Muslim, university or more education level, employees, lived with extended family and hadn`t enough income. Regarding their husband characteristics; the mean age of them was 39.21□8.87 years and majority of them were university or more educational level, employees, and were not drug addict but smokers.

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5.2. Knowledge, attitude and women empowerment regarding IPV

Table (2 and 3) described that there was a highly significant statistical improvement in total knowledge, attitude and women empowerment scores of studied women after 3 months from intervention than before intervention (P=0.000). **The table 5** revealed that, there was a significant relationship between women empowerment levels of the studied sample and all items of their socio-demographic characteristics except the age. Also, figure 3 shows that pre-intervention, more than half of the studied sample had low level of women empowerment, while after three months from intervention about two thirds of them used high level of women empowerment.

5.3. Forms of abusive behaviors and Preventive behaviors within intimate partner relationship

As presented in table 4, there was a significant relation strongly between violent behaviors levels of the studied sample and husbands` education, income, family members size, occupation and alcohol use (P<0.05). **In figure 2,** the majority of the studied sample exposed to humilation violence (98%), while the instrumental violence was the less prevalent among them. Also, **figure 3** summarized that pre-intervention, more than half of the studied sample used withdrawal style to facing IPV, while after three months from intervention about two third of them used positive style to facing IPV.

Table (1): The socio-demographiccharacteristicsof the studied sample and their families.

Variables	**Number (n=100)**	**%**
Womens` age		
Range	20-53	
Mean± SD	33.24□7.45	
Residence:		
Rural	31	31
Urban	69	69
Religion		
Muslim	80	80
Christian	20	20
Womens`education:		
Basic education	7	7
Secondary education	52	52
University education or more	41	41
Womens` job		
House wife	47	47
Empolyee	53	53

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Family type		
Nuclear family	43	43
Extended family	55	55
Single parent family	2	2
Monthly family` income		
Enough	42	42
Not enough	58	58
Crowding index		
Less than 2 pesons/ room	80	80
More than 2 persons/ room	20	20
Number of childern		
2-3 child	54	54
4-6 or more	46	46
Husband ' age		
Range	33-65	
Mean± SD	39.21□8.87	
Husband ' education		
Illeterete / Basic education	15	15
Secondary Education	40	40
University education or more	45	45
Husband`s job		
Not working	28	28
Employee	60	60
Manual worker	12	12

Table(2): The means score of the total knowledge, attitude, violent behaviors, conflict resolution styles and women empowerment among the study phases.

The total score of variables	**The studied students (N =100)**			
	Before intervention	**After intervention**	**T**	**P**
	Mean± SD	Mean± SD		

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Knowelge	35.45-16.62	52.43□13.39	6.725	0.000*
Attitude	46.20□10.69	54.42□10.34	5.689	0.000*
Violent behaiors	42.73□12.69	27.94□13.83	6.838	0.000*
Copnflict resolution styles	37.90□3.74	42.33□5.24	5.705	0.000*
Women empowerment	15.03□12.34	25.03□4.13	7.483	0.000*

* significant (P> 0.01)

Table(3): Correlation between the total score of womens` knowledge, attitude, violent forms, conflict resolution styles and women empowermenttoward IPV.

Total scores	**The studied sample (N =100)**			
	Attitude	**Conflict styles**	**Women empowerment**	**Violent behaviors**
	r **p**	**r** **P**	**r** **P**	**r** **P**
Knowledge	0.552 **0.000****	0.248 **0.013***	0.487 **0.000****	-0.626 **0.000****
Attitude	------	0.001 0.989	0.013 0.987	-0.104 0.303
Conflict resolution styles	0.001 0.989	----	-0.064 0.437	-0.227 **0.023***
Women empowerment	0.013 0.987	0.063 0.534	-------	-0.738 **0.000****

****Correlation is highly significant at the 0.01 level (2-tailed) *Correlation is significant at the 0.05 level (2-tailed).

Table (4): Relation between demographic characteristics of studied sample`husbands and thierviolent behaviors levels.

Variables	**The studied sample (N =100)**						
	violent behaviors levels						**Test of significance P value**
	Low (N=27)		Moderate (N=55)		High (N=18)		
	N	%	n	%	n	%	
Husband`education							X^2= 26.301
Basic/secondary education	11	20.0	33	60.0	11	20.0	P= 0.000*
University & advanced education	16	35.5	22	48.9	7	15.6	

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Income							X^2= 12.921 P= 0.002*
Enough	5	11.9	24	57.1	13	31.0	
Not enough	22	37.9	31	53.4	5	8.6	
Family members size							X^2= 32.022 P= 0.000*
2-6	13	18.6	51	72.9	6	8.5	
More than 6	14	46.7	15	50.0	1	3.3	
Husband`occupation							X^2= 66.180 P= 0.000*
Non work/ Manual work	8	20	14	35	18	45	
Empolyee	19	31.7	41	68.3	0	0	
Husband`s alcohol use							X^2= 50.617 P= 0.000*
Yes	0	0	0	0	10	100.0	
No	27	30.0	55	61.1	8	8.9	

*** Highly significant P> 0.01**

Table (5): Relation of studied sample according to women empowerment levels and their socio-demographic characteristics.

Variables	**The studied sample (N =100)**						
	women empowerment levels adherence						**X2 P value**
	Low (N=52)		Moderate (N=12)		High (N=36)		
	N	%	n	%	n	%	
Age							X^2= 2.011 P= 0.366
20-40 years	42	49.4	10	11.8	33	38.8	
40-60 years	10	66.7	2	13.3	3	20.0	
Residence							X^2= 10.256 P= 0.002*
Urban	34	49.3	8	11.6	27	39.1	
Rural	18	58.1	4	12.9	9	29.0	
Womens` education:							X^2= 11.384 P= 0.077
Basic/Secondary education	31	52.54	9	15.25	19	32.20	
University education and more	21	51.22	3	7.32	17	41.46	
Womens` Job							X^2= 25.450 P= 0.000*
work	40	72.73	3	5.45	10	18.18	
Non work	12	25.5	9	19.1	26	55.3	
Religion							X^2= 33.33 P= 0.000*
Christian	0	0	8	40.0	12	18.18	

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Musliem	52	65.0	4	5.0	24	30.0	
Income							X^2= 18.003 P= 0.000*
Enough	32	76.2	1	2.4	9	21.4	
Not enough	20	34.5	11	19.0	27	46.6	
Family members							X^2= 31.517 P= 0.000*
2-6	51	63	4	4.9	26	10	
More than 6	1	5.3	8	19.0	42.1	52.6	
Husband`occupation							X^2= 70.085 P= 0.000*
Work	24	33.33	12	16.67	36	50.0	
No work	28	100	0	0	0	0	
Familytype							X^2= 10.40 P= 0.001*
Nuclear family	26	60.5	4	9.3	13	30.2	
Extended family and others	26	45.6	8	14.0	23	40.4	

***Significant at P> 0.01**

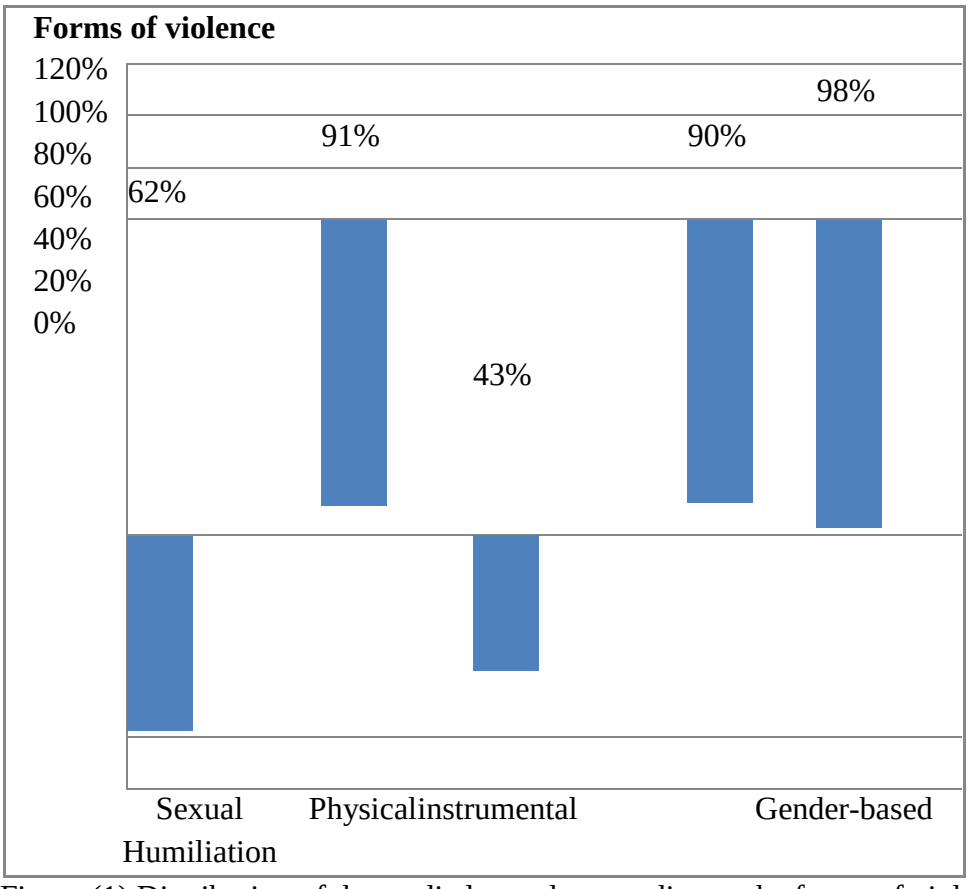

Figure (1) Distribution of the studied sample according to the forms of violence

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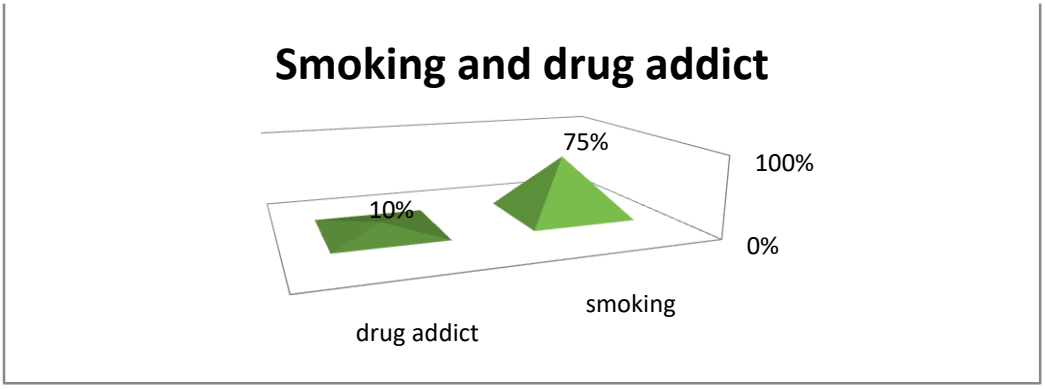

Figure (2) The distribution of the husband according to exposure to smoking and drug addiction.

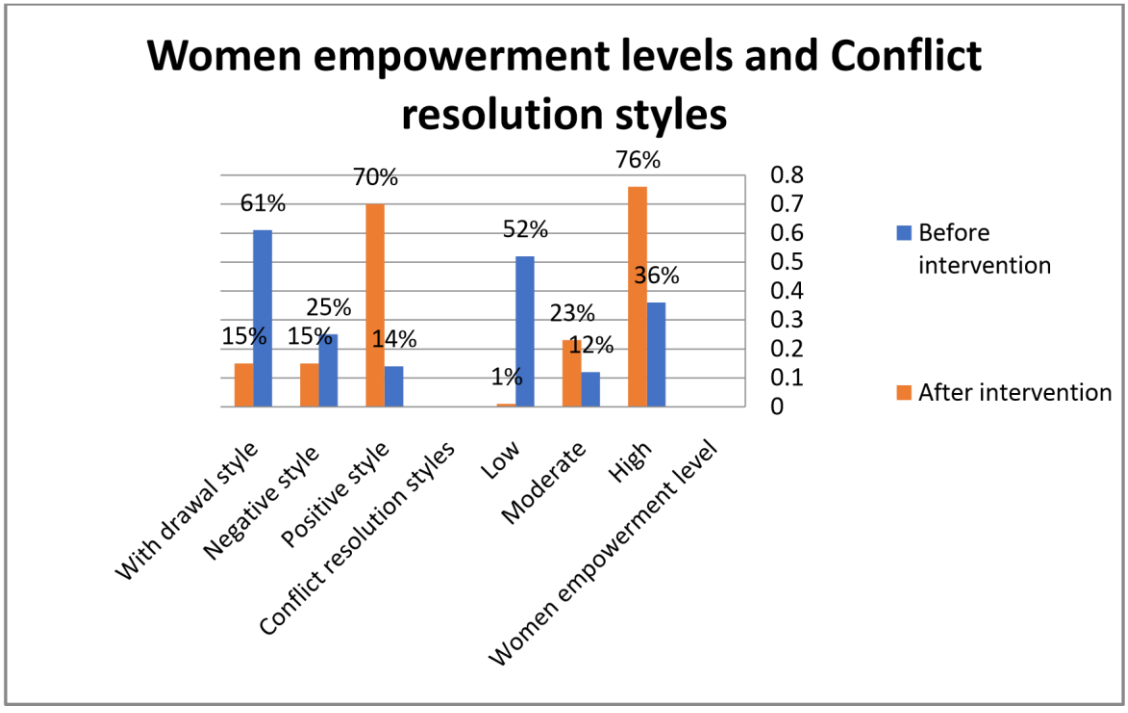

Figure (3): Distribution of the studied sample related to women empowerment levels and conflict resolution styles pre and post intervention.

6. Discussion

The world health organization (WHO) proposed some risk factors for IPV such as alcohol use, low educational level of both partners, prior exposure to family violence, gender disparities between partners, poor income for women, and marital disparities (**World Health Organization, 2018**).

This research clarifies that the mean participants`age was 33.24□7.45 years. The majority lived in urban areas and were Muslims. The educational level was 52% secondary education and 41% with university or more. More than one half of participants were employees, lived in extended family and hadn`t enough income. Regarding husband characteristics; the mean age was 39.21□8.87 years, more than one third of them were university or more education, employees and smoking and the majority of husbands weren`t using

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alcohol or other recreation drugs. This findings are in agreement with those of **(Shrestha et al., 2016**;**Stöckl et al.,2021).**

In the current study, there was improvement in the total knowledge, attitude, violent behaviors, conflict resolution styles and women empowerment scores of studied women with a statistically significant before and 3 months after intervention, (P-value= 0.000). These findings are in accordance with (**Ekhtiari et al.,2013**) who conducted a study to show that educational level affects IPV or not. They found that community-based education enhanced knowledge about IPV and individual's rights and led to reduce violence against females.

Education improved awareness about rights and duties and increased life skills. Similarly, **(Boroumandfaet al.,2010)** found a significant statistical improved in attitude scale regarding violence post intervention. **Ramsay et al.,2012** studied violence on health-care providers and their knowledge and attitude. They showed that physicians involved in the study had a positive attitude toward IPVmore than non-involved other physicians (**Ramsay et al., 2012**).

Also, **(Taghdisi,2014;Kabir et al.,2019**) show that educational program is main indicator in person` selfefficacy and they recommended participation in educational sessions and interaction to try women into active persons to face IPV; who concluded that educational program is beneficial for women especially those with lower socioeconomic status as it boosts confidence level and help in increasing self-efficacy against violence.

In the current study, there was apositive significant association between a total knowledge score of the studied participants and their attitudes, conflict styles, women empowerment total scores. However, there was a negative significant correlation between the violent behavior total score of the studied women and the total score of their knowledge, conflict styles and women empowerment (P-value <0.05). Similar results were obtained by (**Rahman et al., 2011**; **Moonzwe Daviset al., 2014; Bradbury_Jones et al., 2017**)

There was a strong association among violent behaviors levels and husbands` education, income, family member's size, occupation and alcohol consumption (P-value< 0.05). These results was in accordance with(**Ko et al.,2009**;**Gerino et al.,2018)** who concluded that interventions targeted for reduction of IPV should start with raising educational levels of men and communities as well.

Regarding husband's educational level and its relation to IPV, we found strong positive correlation between level of husband's education and IPV where the violence decreased with increased level of education. These findings were not in accordance with (**Ackerson et al.,2008)** who reported that educational level of both partners is independent factor for IPV. The effects were stronger for woman's education while husbands' education captured only 40% of the woman's educational effects.

In the current study, we found a clear association between IPV and family income, family member size and occupation. Many scientific studies found that low socio-economic was the main cause to domestic violence (**Quaifeet al., 2015; Meijer et al., 2016; Reichel, 2017; Manstead, 2018**). Our results are in agreement with (**Vung et al., 2008)** who mentioned that, low education and income of husband were linked to an increased risk of IPV physical harm. Also, he reported that low husband's professional status is associated with IPV.

Although a small percentage (10%), of participant's husbands were alcohol users, we found a strong correlation between alcohol use and IPV. In addition, **(Sanz-Barbero et al.,2018)** confirmed our results as they conducted a cross-sectional survey study on 5976 women from the European Union. They found that reduction of alcohol consumption and improvement in the education are important reducing factors of IPV (**Sanz-Barbero et al.,2018)**.

In the current study, we found that significant correlation between women empowerment levels and all items of their socio-demographic characteristics except the age. The results of studies addressing correlation among women's empowerment and (IPV) were conflicting. Some studies reported that women's economic and social empowerment increased IPV while other studies suggest the converse (**Sanz-Barbero et al., 2018; Schuler & Nazneen, 2018**; **Angelucci & Heath, 2020**).

Sanawar et al., 2019 and Murshid et al., 2020 conducted a study to evaluate the difference between empowerment of women and IPV. They found that empowered older women were higher risk to violence in all types than less-empowered, younger women. This finding is not in agreement with our study which denoted no significant difference regarding age. moreover, they found that empowered uneducated women were more vulnerable to physical violence than more-empowered, primary-educated women (**Sanawar et al., 2019**; **Murshid et al., 2020)**.

The strengths of the current study were including different age categories, different religion categories and educational level categories. Another strength points were the large sample size and the pre-tested well designed questionnaires. The limitations of this study were the cross-section design of the study, the focus on women feelings and experiences rather than the actual causes of IPV. Another limitation was the other partner opinion was neglected. The use of secondary data from questionnaire is considered also a drawback of this research.

Implications for Practice and/or Policy: It is recommended to enhance educational level and empowerment of women against intimate partner violence as greater reduction of IPV was linked to educationand women empowerment.

7. Conclusions: Intimate partner violence was widespread between the enrolled participants. Education and empowerment improved knowledge, attitude and behaviors. Both education and Empowerment are necessary to reduce IPV. This study recommend widespred of seminars, workshops and campaigns for secondary and university` students and their families to create awareness about intimate partner violence

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Ayman S.Dawood: conceptualization, validation, writing, revision, submission.

Sara M El-Gammal: software, methodology, Writing &review

Hend R.Elkest: Statistical analysis, methodology,writing, review & editing

Sherin B Elbohoty: Writing, review& editing

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References

Ackerson, L. K., Kawachi, I., Barbeau, E. M., & Subramanian, S. V. (2008). Effects of individual and proximate educational context on intimate partner violence: a population-based study of women in India. American journal of public health, 98(3), 507-514.

Angelucci, M., & Heath, R. (2020, May). Women empowerment programs and intimate partner violence. In AEA Papers and Proceedings (Vol. 110, pp. 610-14).

Bhalotra, S., Kambhampati, U., Rawlings, S., & Siddique, Z. (2021). Intimate partner violence: The influence of job opportunities for men and women. The World Bank Economic Review, 35(2), 461-479 .

Bonache, H., Ramírez-Santana, G., & Gonzalez-Mendez, R. (2016). Conflict resolution styles and teen dating violence. International Journal of Clinical and Health Psychology, 16(3), 276-286. .

Bonomi, A. E., Anderson, M. L., Reid, R. J., Carrell, D., Fishman, P. A., Rivara, F. P., & Thompson, R. S. (2007). Intimate partner violence in older women. The gerontologist, 47(1), 34-41.

Boroumandfar, K., Javaheri, S., Ehsanpour, S., &Abedi, A. (2010). Reviewing the effect of two methods of educational package and social inoculation on changing the attitudes towards domestic violence against women. Iranian journal of nursing and midwifery research, 15(Suppl1), 283.

Bradbury‐Jones, C., Clark, M. T., Parry, J., & Taylor, J. (2017). Development of a practice framework for improving nurses' responses to intimate partner violence. Journal of clinical nursing, 26(15-16), 24952502.

Breiding, M., Basile, K. C., Smith, S. G., Black, M. C., &Mahendra, R. R. (2015). Intimate partner violence surveillance: Uniform definitions and recommended data elements. Version 2.0.

Burgos-Soto, J., Orne-Gliemann, J., Encrenaz, G., Patassi, A., Woronowski, A., Kariyiare, B., ...&Becquet, R. (2014). Intimate partner sexual and physical violence among women in Togo, West Africa: Prevalence, associated factors, and the specific role of HIV infection. Global health action, 7(1), 23456.

Centers for Disease Control and Prevention. Intimate partner violence: consequences.2015.Available at http :// www .cdc. gov/ violenceprevention /intimatepartnerviolence/effects.html accessed on10-4-2017 Chan, K. L. (2009). Sexual violence against women and children in Chinese societies. Trauma, Violence, & Abuse, 10(1), 69-85.

Coker, A. L., Smith, P. H., Bethea, L., King, M. R., &McKeown, R. E. (2000). Physical health consequences of physical and psychological intimate partner violence. Archives of family medicine, 9(5), 451.

Ekhtiari, Y. S., Shojaeizadeh, D., Foroushani, A. R., Ghofranipour, F., &Ahmadi, B. (2013). The effect of an intervention based on the PRECEDE-PROCEED model on preventive behaviors of domestic violence among Iranian high school girls. Iranian Red Crescent Medical Journal, 15(1), 21.

El-Kest, H. R., Fouda, L. M., Alhossiny, E. A., &Khaton, S. E. The Effect of an Educational Intervention Program on Prevention of Domestic Violence among Adolescent Girls. Journal of Nursing and Health Science, 7(3), 36-50.

Gautam, S., &Jeong, H. S. (2019). Intimate partner violence in relation to husband characteristics and women empowerment: evidence from Nepal. International journal of environmental research and public health, 16(5), 709.

Gerino, E., Caldarera, A. M., Curti, L., Brustia, P., &Rollè, L. (2018). Intimate partner violence in the golden age: Systematic review of risk and protective factors. Frontiers in psychology, 9, 1595.

Kabir, R., & Khan, H. T. (2019). A cross-sectional study to explore intimate partner violence and barriers to empowerment of women in Armenia. BioMed research international, 2019

Karamagi, C. A., Tumwine, J. K., Tylleskar, T., &Heggenhougen, K. (2006). Intimate partner violence against women in eastern Uganda: implications for HIV prevention. BMC public health, 6(1), 1-12 .

Lagdon, S., Armour, C., & Stringer, M. (2014). Adult experience of mental health outcomes as a result of intimate partner violence victimisation: a systematic review. European journal of psychotraumatology, 5(1), 24794.

Lopez-Avila, D. (2016). Measuring Women's Empowerment: lessons to better understand domestic violence .

Manstead, A. S. (2018). The psychology of social class: How socioeconomic status impacts thought, feelings, and behaviour. British Journal of Social Psychology, 57(2), 267-291.

Meijer, E., Gebhardt, W. A., Van Laar, C., Kawous, R., &Beijk, S. C. (2016). Socio-economic status in relation to smoking: The role of (expected and desired) social support and quitter identity. Social Science & Medicine, 162, 41-49.

Modi, M. N., Palmer, S., & Armstrong, A. (2014). The role of Violence Against Women Act in addressing intimate partner violence: A public health issue. Journal of women's health, 23(3), 253-259.

Moonzwe Davis, L., Schensul, S. L., Schensul, J. J., Verma, R. K., Nastasi, B. K., & Singh, R. (2014). Women's empowerment and its differential impact on health in low-income communities in Mumbai, India. Global public health, 9(5), 481-494.

Murshid, N. S., &Critelli, F. M. (2020). Empowerment and intimate partner violence in Pakistan: results from a nationally representative survey. Journal of interpersonal violence, 35(3-4), 854-875.

Nicolaidis, C., &Paranjape, A. (2009). Defining intimate partner violence: Controversies and implications. Intimate partner violence: A health-based perspective, 19-30.

Quaife, S. L., Winstanley, K., Robb, K. A., Simon, A. E., Ramirez, A. J., Forbes, L. J., ... & Wardle, J. (2015). Socioeconomic inequalities in attitudes towards cancer: an international cancer benchmarking partnership study. European Journal of Cancer Prevention, 24(3), 253.

Rahman, M., Hoque, M. A., &Makinoda, S. (2011). Intimate partner violence against women: Is women empowerment a reducing factor? A study from a national Bangladeshi sample. Journal of Family Violence, 26(5), 411-420.

Ramsay, J., Rutterford, C., Gregory, A., Dunne, D., Eldridge, S., Sharp, D., &Feder, G. (2012). Domestic violence: knowledge, attitudes, and clinical practice of selected UK primary healthcare clinicians. British journal of general practice, 62(602), e647-e655.

Reichel, D. (2017). Determinants of intimate partner violence in Europe: The role of socioeconomic status, inequality, and partner behavior. Journal of interpersonal violence, 32(12), 1853-1873.

Rodríguez-Díaz, F. J., Herrero, J., Rodríguez-Franco, L., Bringas-Molleda, C., Paíno-Quesada, S. G., & Pérez, B. (2017). Validation of dating violence questionnarie-r (DVQ-R). International Journal of Clinical and Health Psychology, 17(1), 77-84.

Sanawar, S. B., Islam, M. A., Majumder, S., &Misu, F. (2019). Women's empowerment and intimate partner violence in Bangladesh: investigating the complex relationship. Journal of biosocial science, 51(2), 188202.

Sanz-Barbero, B., Pereira, P. L., Barrio, G., &Vives-Cases, C. (2018). Intimate partner violence against young women: prevalence and associated factors in Europe. J Epidemiol Community Health, 72(7), 611-616.

Schuler, S. R., &Nazneen, S. (2018). Does intimate partner violence decline as women's empowerment becomes normative? Perspectives of Bangladeshi women. World development, 101, 284-292.

Shrestha, M., Shrestha, S., & Shrestha, B. (2016). Domestic violence among antenatal attendees in a Kathmandu hospital and its associated factors: a cross-sectional study. BMC pregnancy and childbirth, 16(1), 1-10 .

Sigalla, G. N., Mushi, D., Meyrowitsch, D. W., Manongi, R., Rogathi, J. J., Gammeltoft, T., &Rasch, V. (2017). Intimate partner violence during pregnancy and its association with preterm birth and low birth weight in Tanzania: A prospective cohort study. PloS one, 12(2), e0172540.

Stöckl, H., Hassan, A., Ranganathan, M., & Hatcher, A. M. (2021). Economic empowerment and intimate partner violence: a secondary data analysis of the cross-sectional Demographic Health Surveys in Sub-Saharan Africa. BMC women's health, 21(1), 1-13.

Taghdisi, M. H., Estebsari, F., Dastoorpour, M., Jamshidi, E., Jamalzadeh, F., &Latifi, M. (2014). The impact of educational intervention based on empowerment model in preventing violence against women. Iranian Red Crescent Medical Journal, 16(7).

Vung, N. D., Ostergren, P. O., &Krantz, G. (2008). Intimate partner violence against women in rural Vietnamdifferent socio-demographic factors are associated with different forms of violence: Need for new intervention guidelines?. BMC public health, 8(1), 1-11.

World Health Organization. (2020). COVID-19 and violence against women: what the health sector/system can do, 7 April 2020 (No. WHO/SRH/20.04). World Health Organization .

Yang, M., Beybutyan, A., Ríos, R. P., & Soria-Verde, M. Á. (2021). Public attitudes towards intimate partner violence against women and influential factors in China and Spain. Anuario de PsicologíaJurídica, 31, 101108.

Legends for tables

Table (1): the socio-demographic and husband characteristics of the studied sample.
Table(2): Distribution of the studied Sample in relation to the means of the total knowledge, attitude, violent behaviors, conflict resolution styles and women empowerment among the study phases.
Table(3): Correlation between the total knowledge, attitude, violent behaviors, and conflict resolution styles and women empowerment.
Table (4): Relation of studied sample according to violent behaviors levels and their husband characteristics.
Table (5): Relation of studied sample according to women empowerment levels and their socio- demographic characteristics.

Legends for figures

Figure (1): Distribution of the studied sample according to the forms of violence.
Figure (2): Distribution of the husband according to exposure to smoking and drug addiction.

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Figure (3): Distribution of the studied sample related to women empowerment levels and conflict resolution styles pre and post intervention