

## Post traumatic stress disorders for Patients Undergoing Abortion and Nursing Implications

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### Abstract:

**Background:** Post traumatic stress disorders [Post abortion syndrome (PAS)] is a term that has been used to describe the emotional and psychological consequences of abortion. Complications of abortion account for more than 80 % of maternal deaths. **The aims** of the present study were to; determine physical and psychological alarming signals that denote complications among aborted women as well as to plan and implement an educational program for upgrading nurse's knowledge pertaining to the management of patients undergoing abortion. **Research design:** A Descriptive and an intervention design" were selected in carrying out this study and representative **samples** of 400 aborted women and 20 nurses were recruited for this study. **Setting:** Obstetrics and Gynecological Department at Zagazig University Hospitals through a period of one year, **The tools** used for data collection were; an interview questionnaire sheet, clinical assessment form, the follow up sheet and Pre and post evaluation sheet. **The results are;** Aborted women suffered immediate physical and late posttraumatic stress disorders, and there was a statistically significant improvement in nurse's knowledge about abortion and its management at the post test of the intervention program. **The study recommended that;** relevant nursing curricula must entail a detailed portion about abortion, PTSD, management and post-abortal hygiene. And nursing role for women underwent abortion should be recommended in maternity hospital protocols.

**Key words:** PTSD, Abortion, patients, Nursing Implications.

### Introduction:

World wide around 515.000 women die each year for maternal causes, many more experience serious problems during pregnancy & childbirth (Awad & Zohry, 2005). The international health community contains a wealth of resources that, if coordinated, could have an immediate and significant impact in reducing global levels of maternal mortality and morbidity stemming from complications of abortion. Deaths and injuries from abortion are almost wholly preventable through existing means (Wolf, 2008).

Post traumatic stress disorder [Post abortion syndrome (PAS)] is a

term that has been used to describe the emotional and psychological consequences of abortion (Cherry & Merkatz, 2000).

Abortion complications are responsible for around 14.0% of the approximately 500,000 maternal deaths that occur each year, 99.0% of them in the developing world. "The prevention of abortion-related maternal mortality is dependent on emergency abortion care being integrated throughout the health care system of every country (Johnston, 2008)

Abortion either spontaneous or induced may lead to serious

complications which can be divided into two categories as follows:

- Early physical complications such as; pain, perforation of the uterus, hemorrhage and shock (**Decherney et al., 2007**).
- Delayed complications such as; ectopic pregnancy, infertility, cervical incompetence and increased risk of breast cancer (**Faundes, Rao & Briozzo, 2010**).

As well as psychological complications (post traumatic stress disorders) such as: feeling of sadness, anger, self blame as well as feeling of poor emotional support from the husband. Moreover, guilt feeling, depression and anxiety about the possibility of another loss and the desire to cry) Orshan, **2008**).

Post-traumatic stress disorder results when the traumatic event causes the hyper arousal of "flight or fight" defense mechanisms. This hyper arousal causes these defense mechanisms to become disorganized, disconnected from present circumstances, and take on a life of their own resulting in abnormal behavior and major personality disorders. As an example of this disconnection of mental functions, some PTSD victim may experience intense emotion but without clear memory of the event; others may remember every detail but without emotion; still others may re experience both the event and the emotions in intrusive and overwhelming flashback experiences (**Bazon, 2008**).

Women may experience abortion as a traumatic event for several reasons. Many are forced into an unwanted abortion by husbands, boyfriends, parents, or others. If the woman has repeatedly been a victim of domineering abuse, such an unwanted

abortion may be perceived as the ultimate violation in a life characterized by abuse (**Friedman & Gath, 2006**). Other women, no matter how compelling the reasons they have for seeking an abortion, may still perceive the termination of their pregnancy as the violent killing of their own child. The fear, anxiety, pain, and guilt associated with the procedure are mixed into this perception of grotesque and violent death. Still other women, report that the pain of abortion, inflicted upon them by a masked stranger invading their body, feels identical to rape (**Thapar & Thapar, 2009**).

Most abortions are safe. Nevertheless, there are many problems that can occur either during or after abortion, and there are possible serious physical and psychological complications. Some complications are immediately apparent while others reveal themselves days, months and even as much as 10-15 years late (**Dwyer & Jackson, 2010**).

Nurse's role is crucial in preventing abortion complications and assessing patient needs at the hospitals because she stays with the patient 24 hours per day. As well as the nurse should have a sound knowledge of pathophysiology, medical and nursing management of the women undergoing abortion. In addition, the nurse is in a key position to educate others and influence many aspects of care provided to the women undergoing abortion and their families.

#### **Aim of the study:**

- Determine physical and psychological alarming signals that denote complications (post traumatic stress disorders) among aborted women in Zagazig university hospitals.

- Plan and implement an educational program for upgrading nurse's knowledge pertaining to the management of patients undergoing abortion.

#### The study questions:

- What are the physical and psychological complications of abortion?
- What was the result of the training program for nurses about abortion?

#### Significance of the study:

In Egypt abortion is a sensitive women's health issue, it accounts for 4.5% of all maternal deaths, and 6.4% of direct obstetric deaths. It is prohibited religiously and legally, except when pregnancy endangers the mother's health and life (**Dabash & Roudi-Fahimi, 2008**).

The problem of abortion complication remains under appreciated by both health care providers and public research. A few studies have focused specifically on post abortion care and no recent study was done to address this problem in Zagazig. Moreover, the limited knowledge of nurses pertaining to abortion necessitates an educational program to be conducted for them to improve their knowledge regarding abortion.

#### Subjects and methods:

##### *Research Design:*

A Descriptive design to collect data related to post abortive period for any complications that may arise. Such complications include both physical and post traumatic. And an intervention design to plan and implement the program for upgrading nurses knowledge about abortion and its management. Were used

##### *Setting:*

In the Obstetrics and Gynecological Department at Zagazig University Hospitals through a period of one year,

##### *Sample:*

Two samples were selected for this study, namely a sample of women and another sample of nurses.

**As for post traumatic stress disorders study:** 400 aborted women from the Obstetrics and Gynecological Department at Zagazig University Hospitals. The sample was selected randomly using simple random sample if fulfilling the inclusion criteria.

##### *Case inclusion criteria:*

- Age of patients up to 40 years,
- Gestational age  $\leq 28$  weeks,
- Have a definite specific diagnosis of abortion.

##### *Exclusion criteria:*

The presence of any of the following causes of bleeding disqualified the subject from inclusion:

- Ectopic pregnancy
- Vesicular mole
- Uterine bleeding due to other causes

**As for An intervention study:** A total sample of 20 nurses working in Obstetrics department at Zagazig University hospitals with different age and different years of experience were selected for the intervention study.

**Tools of data collection:** Five tools were used

**1. An interview questionnaire form:** was used to collect relevant data to the topic

of the study. The patients and controls were submitted to such an interview.

##### **Interview questionnaire:**

**Personal data:** These include the following variables:

- **General data:** Age, income, educational level, consanguinity of the couples, residence and age at marriage.
- **Data for job status:** daily working hours, being exposed to a hard physical work, occupational exposure to radiation, heavy metals or other environmental hazards.
- **Lifestyle and personal habits:** hours of sleep per day, drinking tea or coffee, smoking, and share in antenatal care program.

**Obstetrical history:** It included the following variables: Gravidity and parity,

number of previous abortion, birth interval and previous mode of delivery. **Medical history:** It included data indicating the presence or absence of the following diseases: anemia, heart disease, hypertension, pre-eclampsia, gestational diabetes, infection and RH incompatibility.

**Contraceptive history:** It included data about the previous use of family planning methods, the type of these methods and the duration of its use.

2. **Physical assessment sheet:** Both general and local physical examinations were done for the cases. Also, pelvi-abdominal ultrasonography examination was done for both groups to estimate gestational age. The clinical diagnosis of abortion, causes, investigations required and treatment were all recorded by the obstetrician. Alarming signals observed on patient's admission were recorded and reported by the researcher, who also assisted with the management of both patients
3. **The follow up sheet:** This sheet was developed by the investigator to collect data pertaining to problems encountered during the post abortive period. Such

complications include; both physical and psychic trauma of abortion. The above data was collected during her hospital stay and 2 weeks after their discharge.

4. **Post traumatic stress disorder scale:** This was developed by **American Psychiatric Association, (2000)**. It is consisted of two main items:

- Immediate alarming signals that occur during 1st day .It included 14 sub items.
- Late alarming signals that occur within two weeks. This included 14 sub items.

5. **Pre and post evaluation sheet:** This sheet was used to asses nurse's knowledge

before & after intervention program in relation to abortion and its management

#### **Field work:**

Patients with abortion (400) who met the criteria for inclusion and exclusion from the study were recruited. Every woman was individually interviewed on admission to the gynecological department. The time taken for the questionnaire to be completed was 25-30 minutes depending upon the physical and psychological condition of each interviewer. Care was given by the researcher pre, during and after abortion. Counseling pertaining to post-abortal hygiene and methods of coping with PTSD were also provided by the researcher. Each woman was advised to report immediately any alarming signals that denote physical and psychological complications in relation to abortion Patient were asked to attend the follow-up visit within two weeks after the abortion procedure for the reassessment of the physical and psychological condition after evacuation. Meanwhile, the investigator made more than three

attempts to follow them up through the phone calls for all women who have failed to return for post abortion visit.

A program for upgrading nurse's knowledge pertaining the management of patient undergoing abortion was designed and implemented by the researcher. The program consisted of 5 sessions and the total time of sessions was 10 hours. The number of nurses in each session was only 5 nurses in order to facilitate learning process and allow each nurse to participate as well as ensure adequate supervision. One session was conducted daily for nurses in either the morning or the afternoon shift. The session started at 1 PM. and ended at 3 PM. It was the most suitable time for the nurses after they have completed their duties

#### ***Pilot study:***

It was carried out on a sample of 20 patients. These were not included in the main study sample. It was conducted to test the feasibility and applicability of the study, and to assess the clarity and completeness of tools. Based on the findings of the pilot study, tools were reviewed and some questions were clarified

#### ***Administrative and Ethical Considerations:***

The purpose of the study and procedures to be performed were explained to the patients and oral consent to participate in the study was taken accordingly. All patients were managed properly before and after abortion. Post abortive hygiene and counseling about problems encountered and methods used to cope with these problems were discussed with every woman.

#### ***Statistical design:***

An IBM compatible personal computer was used to store and analyze data and to produce graphic

presentation for some important results statistical package for the social science (SPSS) version 14 was used for statistic analysis of data as it contains the test of significant given in standard statistic books.

#### **Results:**

**Table (1)** indicates that the majority of aborted women had menstrual like cramps or general symptoms. However, almost one fifth (18.0%) of women had suffered from hemorrhage, twenty two women (6.0%) had elevated temperature more than 38<sup>o</sup>c and three women (0.7%) had allergic reaction to anesthetic.

**Table (2)** demonstrates that more than two fifth (40.7%) of aborted women had intense abdominal pain which require sedation as a late alarming signals.

**Table (3)** shows that the most frequent immediate psychological problem was feeling of sadness (63.5%) followed by anxiety about the possibility of another loss (53.5%) and desire to cry (35.5%). On the other hand, the least problems that frequently encountered were that of depression, feeling of unreality that the baby was dead (16.3% and 11.8% respectively).

As for the late alarming signals, **table (4)** shows that feeling of sadness (20.3%) was the most common psychological problem. Other reported problems include; eating disorders (7.5%), desire to cry (7.0%) and insomnia (5.5%).

The distribution of the aborted group according to the degree of posttraumatic stress disorders is shown in **figure (1)**, almost one fourth (21.2%) of women had severe degree of PTSD and the majority (78.8%) had mild and moderate degree of these alarming signals.

**Table (5)** points to statistically significant improvements in nurse's knowledge about abortion and its

management at the post test,  $P=0.000$ . As the table shows the mean scores of knowledge at the pre-test were low for the treatment used for abortion, PTSD and post abortion hygiene ( $0.6 \pm 0.4$ ,  $2.6 \pm 1.6$  and  $3.1 \pm 2.7$  respectively). At the post test, the scores rose up to be  $1.2 \pm 0.87$ ,  $5.8 \pm 1.9$  and  $8.5 \pm 2.3$ , respectively.

### Discussion:

Abortion complications are responsible for around 14.0% of the approximately 500,000 maternal deaths that occur each year, 99.0% of them in the developing world. "The prevention of abortion-related maternal mortality is dependent on emergency abortion care being integrated throughout the health care system of every country (Johnston, 2008)

All women underwent abortion suffered immediate physical complications, of which approximately two fifth (42%) were considered life threatening. These include; shock, excessive and prolonged bleeding and infection. This present study rate was much higher than those reported by (Hosterio, 2011) in Northeast Chin as for the presence of late danger signals "two weeks after abortion" the present study findings could not demonstrate much complications. This result is in disagreement with Earll (2011) in Turkish who emphasized that the most common late complications are infection, excessive bleeding, embolism, ripping or perforation of the uterus, anesthesia complications, convulsions, hemorrhage, cervical injury, and endotoxic shock.

As regards post traumatic stress disorders, almost two thirds of the aborted women (63.5%) had the feeling of sadness on the first day after abortion. This finding is partially in congruence with Adler (1990) in New York who has found a statistical

correlation between abortion and sadness or stress.

While some studies have shown a correlation between abortion and clinical depression, anxiety, suicidal behaviors, or adverse effects on women's sexual functions for a small number of women, the present study showed less proportions of these PTSD. The aforementioned correlations may be explained by pre-existing social circumstances and emotional health (Russo & Denious, 2009).

The second part of the present study consisted of an intervention that, aimed at improving nurses' knowledge regarding abortion. This information includes; types of abortion, the diagnostic criteria, physical and post traumatic stress disorder complications, as well as post abortal hygiene. The study findings have revealed that the percent knowledge scores at the pre-test before the program implementation were low. However, statistically significant improvements in nurses' knowledge about abortion were noticed at the post-test ( $p < 0.001$ ).

The present information guide was tailored according to nurses needs. It was successfully used and greatly welcomed by its users. It can be claimed that it helped to correct misinformation and malpractice regarding different aspects of abortion and its management. This agrees with the findings of Sim et al. (2009) study in Asia and Sait et al., (2010) in their study of the knowledge of abortion among young Saudi females, in Saudia .The results of the current study revealed that the mean scores of women's knowledge about abortion, were significantly improved in all areas of knowledge after program implementation at the post test. The researcher attributes her finding to the structure, content, and the process of

running such program. Also this could be due to the effectiveness of the educational program and the entire participant interest to get more information about this topic. These results were in accordance with the study of **Rao et al. (2005)** in India.

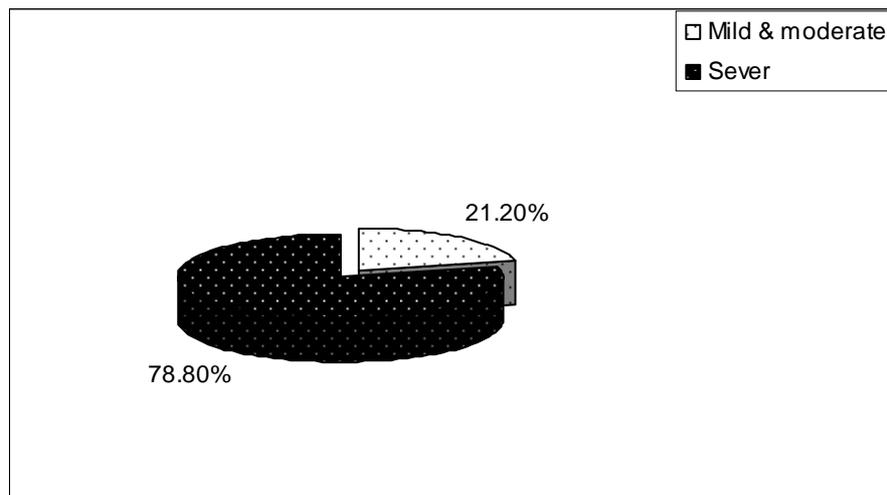
#### **Conclusion:**

Based on the findings of the present study, it can be concluded that, Aborted women suffered immediate physical and late posttraumatic stress disorders, and there was a statistically significant improvement in nurse's knowledge about abortion and its management at the post test of the intervention program.

#### **Recommendation:**

Based on the foregoing study results, the following recommendations are suggested:

- Maternity nurses should have an opportunity to attend training programs about abortion in order to combat unsafe abortion and change any malpractice regarding this problem.
- Nursing role for women underwent abortion should be recommended in maternity hospital protocols.
- Further research is suggested to study the effect of unsafe abortion on women morbidity and mortality.



**Figure (1): Degree of post traumatic stress disorders**

**Table (1): Distribution of the aborted group according to immediate alarming signals that denote physical complications**

<b>Physical alarming signals</b>	<b>No</b>	<b>%</b>
<b>Immediate alarming signals: (1st day) : (n=400)</b>		
<b>Abdominal pain or menstrual like cramps:</b>		
No	14	3.5
Yes	386	96.5
<b>Fever (more than 38°C):</b>		
No	378	94.0
Yes	22	6.0
<b>General symptoms (nausea / vomiting , feeling cold , headache):</b>		
No	122	30.5
Yes	278	69.5
<b>Allergic reaction to anesthetic ( fever , rash , and discomfort ):</b>		
No	397	99.3
Yes	3	0.7
<b>Hemorrhage ( used more than one sanitary pad / hrs):</b>		
No	328	82.0
Yes	72	18.0
<b>Vaginal laceration :</b>		
No	400	100.0
Yes	0	0.0
<b>Cervical injury :</b>		
No	400	100.0
Yes	0	0.0
<b>Uterine perforation :</b>		
No	400	100.0
Yes	0	0.0

**Table (2): Distribution of the aborted group according to late alarming signals that denote physical complications**

<b>Physical alarming signals</b>	<b>No</b>	<b>%</b>
<b>Late alarming signals: (two weeks after abortion) : (n=400)</b>		
<b>Intensive abdominal pain which require sedation</b>		
No	237	59.3
Yes	163	40.7
<b>Excessive blood loss , which require blood transfusion</b>		
No	391	97.7
Yes	9	2.3
<b>Incomplete abortion which require second procedure for evacuation</b>		
No	399	99.7
Yes	1	0.3
<b>Infection / sepsis which treated by antibiotics</b>		
No	398	99.5
Yes	2	0.5
<b>Embolism</b>		
No	400	100.0
Yes	0	0.0
<b>Readmission to hospital</b>		
No	398	99.5
Yes	2	0.5

**Table (3): Distribution of the aborted group according to their post- abortive immediate alarming signals that denote psychological complications**

Psychological alarming signals (n=400)	Never		Sometimes		Always	
	No.	%	No.	%	No.	%
<b>Immediate alarming signals: (1<sup>st</sup> day) :</b>						
1-Feeling of sadness	22	5.5	124	31.0	254	63.5
2- Feeling of anger or self blame	374	93.5	19	4.8	7	1.8
3- Feeling of poor emotional support from her husband	395	98.8	5	1.2	0	0.0
4- Feeling of helplessness from family & friends	397	99.3	3	0.7	0	0.0
5- Feeling of unreality that the baby dead	303	75.8	50	12.5	47	11.8
6- Guilt felling	389	97.3	11	2.8	0	0.0
7- Depression	190	47.5	145	36.3	65	16.3
8- Anxiety about the possibility of another loss	46	11.5	140	35.0	214	53.5
9-Desir to cry	108	27.0	150	37.5	142	35.5
10- Desire to be alone	176	44.0	133	33.3	91	22.8
11- Dreaming and thinking of the baby	215	53.8	60	15.0	125	31.3
12- Sleep disturbance ( insomnia )	150	37.5	148	37.0	102	25.5
13- Anorexia or overeating (eating disorders	110	27.5	199	49.8	91	22.8
14- Nervous disorders	133	33.3	141	35.3	126	31.5

**Table (4): Distribution of the aborted group according to their post- abortive late alarming signals that denote psychological complications**

Psychological alarming signals (n=400) Late danger signals:	Never		Sometimes		Always	
	No	%	No	%	No	%
1-Feeling of sadness	132	33.0	187	46.8	81	20.3
2- Feeling of anger or self blame	398	99.5	2	0.5	0	0.0
3- Feeling of poor emotional support	399	99.8	1	0.3	0	0.0
4- Feeling of helplessness from family & friends	400	100.0	0	0.0	0	0.0
5- Feeling of unreality that the baby dead	372	93.0	25	6.3	3	0.8
6- Guilt felling	391	97.8	9	2.3	0	0.0
7- Depression	317	79.3	71	17.8	12	3.0
8- Anxiety about the possibility of another loss	218	54.5	165	41.3	17	4.3
9-Desir to cry	238	59.5	143	33.5	28	7.0
10- Desire to be alone	270	67.5	110	27.5	20	5.0
11- Dreaming and thinking of the baby	229	57.3	144	36.0	27	6.8
12- Sleep disturbance ( insomnia )	271	67.8	108	27.0	21	5.3
13- Anorexia or overeating (eating disorders	216	54.0	154	38.5	30	7.5
14- Nervous disorders	195	48.9	170	42.6	34	8.5

**Table (5): Assessment of pre-post nurse's knowledge about the management of patient undergoing abortion**

Knowledge items	Satisfactory knowledge (50%)				T-test	p-value
	Pre (n=20)		Post (n=20)			
	No.	%	No.	%		
<b>Total knowledge about abortion</b>						
Unsatisfactory	17	85.0	4	20.0	--	--
Satisfactory	3	15.0	16	80.0		
Mean ±SD	6.5 ±2.4		10.6±2.5		7.3	0.000*
<b>Total knowledge about PTSD</b>						
Unsatisfactory	17	85.0	5	25.0	--	----
Satisfactory	3	15.0	15	75.0		
Mean ±SD	2.6 ±1.6		5.8±1.9		6.6	0.000*
<b>Total knowledge about treatment for abortion</b>						
Unsatisfactory	20	100.0	11	55.0	--	---
Satisfactory	0	0.0	9	45.0		
Mean ±SD	0.6 0.4		1.2 ± 0.87		2.4	0.024*
<b>Total knowledge about Post abortion hygiene</b>						
Unsatisfactory	16	80.0	4	20.0	--	--
Satisfactory	4	20.0	16	80.0		
Mean ±SD	3.1 ± 2.7		8.5 ± 2.3		8.3	0.000*

(\*) Statistically significant at  $p < 0.05$ 

(T) Paired Sample test

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