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Post-abortion Learning Needs as Perceived by Women Attending Cairo University Hospital: Suggested Plan of Action

Basma Said Mahmoud El Gamasy[1], Eman Alshawish[2]*, Heba T Allah El Ashmawy Mohamed Shaban[1], Fatma Zaghloul Mahmoud[1]

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Abstract: **Background**: Understanding the learning needs of women who have had an abortion is essential for improving their quality of life and ensuring their reproductive rights. A**im**: the current study was conducted to explore post-abortion learning needs as perceived by women attending Cairo University Hospital and design a suggested plan of action. **Design:** a descriptive exploratory research design was adopted. **Sample:** A purposive sample of 174 women who have had an abortion was recruited for the research over four months. **Setting:** postpartum unit at obstetrics and gynecology at Cairo University Hospital. **Tools:** two tools were used; 1) a structured interviewing questionnaire, and 2) a post-abortion learning needs assessment tool. **Results**: the mean age of women who have had an abortion was 22.5±4.1years with 45.5% ranging from 20-25 years. psychological needs were considered the most urgent, as 75.3% of individuals rated them high, while nearly three-quarters reported moderate needs in both physical (74.1%) and social (74.7%). **Conclusion**: psychological needs were the most pressing, while physical and social needs were generally less important. **Recommendation**: Designing targeted and integrated programs that meet the needs of women who have had an abortion, especially in the aspects of psychological support, health education, and psychological stress management.

Keywords: Post-abortion, Learning needs: Women's rights; quality of life

Introduction

Bleeding during the first trimester is recognized as a distressing event that can significantly affect a woman's physical and psychological well-being [1]. Top on the list is abortion which refers to pregnancy loss before 20 weeks of pregnancy or the baby weighs at least 500g [2]. Abortion can be classified into spontaneous abortion such as threatened, inevitable, incomplete, complete, septic, and missing abortions; and induced abortion where pregnancy is intentionally terminated using surgery, medicine, or other methods [3, 4, 5]

The annual global rate of abortion is approximately 23 million. The overall incidence of abortion is 25% [4]. The exact total number of abortions in Egypt remains difficult to determine because legal restrictions and cultural stigmas force women to avoid official reporting [31]. Research reveals that approximately 40% of women had undergone at least one abortion based on the 2000 study which examined 1,025 women in six different Upper Egyptian villages. Research supplied evidence indicating that the occurrence rate reached 265 abortions for every 1,000 live births [6].

Bleeding ranging from light, moderate or severe, cramping stomachache, regular suprapubic discomfort, or low back ache are sometimes symptoms of abortion [7]. Spontaneous and induced abortions are both identified as stressful life events accompanied by potentially numerous and diverse unpleasant psychological reactions. Women who have had an abortion are more likely to experience elevated levels of anxiety, depression, sadness, and post-traumatic stress disorder (PTSD) in the six months that follow [8].

Multiple studies concluded that advanced maternal ages, previous history of miscarriage, employment type, household source of drinking water, TORCH infections, uncontrolled hyperglycemia, obesity, thyroid disease, significant stressors, use of teratogenic medications, and presence of a subchorionic hemorrhage are all risk factors for abortion of any kind [9, 10].

Abortion-related complications remain for of the major causes of maternal mortality with approximately 22800 women dying from such complications each year [11, 12]. It can be associated with mental health disorders, physical problems such as bleeding/ anemia, cardiovascular and respiratory problems, infection, and pain/weakness [13, 14].

Based on WHO, 2022 [15] it is recommended that the following should be explained to a woman after an abortion: After an abortion, it is normal for women to experience a vagina discharge which is usually in the form of red/brown, light/period or spotted bleeding for several weeks. After an abortion, it is normal for some pain to be felt when the uterus contracts after the act. A mild analgesic may help ease pain that manifests itself in cramps. The pads should be changed after four to six hours. Discard it appropriately, or if it is washable, wash the pad. The perineum should be washed. There should be no sexual intercourse or anything inserted into the vagina until the bleeding has ceased. For the women who were at risk of STI or HIV, you

1 Department of maternal & Newborn Health Nursing, Faculty of Nursing, Cairo University, Egypt
2 Pediatric Nursing, Maternity and Midwifery, Faculty of Nursing, An Najah National University, Nablus, Palestine.
* Corresponding author email: alshawish@najah.edu

should practice safe sex, use a condom, and observe every act of sexual activity; furthermore, the recommended contraceptive method and danger signs.

Wang et al, 2022 [16] concluded needs of Chinese women undergoing abortion following accurate, and consistent information support, emotional support, and practical knowledge on how to create a network of emotional and social support for the needs at the first appointment; needs during abortion included secure, encouraging, and professionally managed abortion services, appropriate discharge education. Needs post-abortion included ongoing assistance with controlling negative emotions and intimate relationships, and assistance with the acquisition of life skills to prevent similar circumstances.

Abortion can be viewed as a major life crisis, with varying degrees of reaction, nurses play a significant role in the post-abortion period not only for doing post-abortion assessment but also for providing extensive teaching to women who have had an abortion and before they are discharged from the hospital based on bio-psychosocial needs [17]. There are a few scattered nursing research studies carried out to assess post-abortion women's learning needs. So, this study aims to determine post-abortion learning needs as perceived by women attending Cairo University Hospital (Kasr El-Ainy) Hospital and provide a suggested plan of action based on these needs, which may help the nurse to direct her teaching toward the women's unique learning needs and thus improve women's reproductive health and rights.

Maternity nurses are the cornerstone for the health services of women and fetuses, providing care from primary to tertiary prevention levels. They engage daily with women who have had an abortion, offering accurate information about the procedure and its impact on their lifestyles. During the post-abortion period, nurses provide counseling on health and lifestyle choices, facilitating decision-making to encourage effective interventions. Their various roles as counselors, educators, managers, care providers, and researchers help promote positive health behaviors and reduce health risks [18].

Significance of the study

The post-abortion period is a crucial time for women, as it can significantly impact both them and their families. Nurses play a multi-faceted role during this time, acting as direct care providers, managers, educators, counselors, and researchers. Their efforts aim to enhance the health of women after abortion, which in turn helps reduce mortality and morbidity rates, correct misconceptions, and address unhealthy behaviors among patients [18].

In developing countries, women's care during the abortion period received low-quality care compared with the attention that was given during pregnancy and childbirth. Post-abortion recovery is assumed to be complete at six weeks, and many countries provide services in the form of post-abortion visits following hospital discharge [29]. In Egypt, there is a lack of standardized post-abortion care protocols offered to women who have had an abortion, determining the need to help improve physical and psychological health for these target groups and formulating appropriate protocols of care based on their needs [30]. Based on the literature, there is scarce research in Egypt determining post-abortion learning needs. The implication of this research is to further enrich the competitive knowledge about women and the challenges following abortion, with emphasis on the educational, psychological, and social needs that impact the woman in that stage, but with a special focus on Egyptian Culture. The present study helps in addressing the identified gaps in the existing literature regarding women's needs after abortion and offers practical recommendations for the scientific implementation of the results-oriented approach at medical institutions.

At an applied level, this research affords practical solutions in the form of an action plan that addresses the special educational needs of women who have had an abortion. This plan is not confined to medical changes but also goes to psychological and social changes, which in a way minimize future psychological risks such as depression and anxiety. The study also helps to advance the medical/psychological support approaches offered to women at Cairo University Hospital (Kasr El-Ainy) and other health facilities. This raises the standard of health care and enriches the quality of service being offered to women who have had an abortion.

Aim of the Study

The current study aimed to explore post-abortion learning needs as perceived by women Attending Cairo University Hospital and design a suggested plan of action.

Research question

What are post-abortion learning needs (physical, psychological, and social needs) as perceived by women attending Cairo University Hospital?

Operational definition:

Learning needs: The research identified learning needs as the necessary information, together with practical abilities and social assistance that women need to successfully handle their post-abortion situation. Three dimensions form the basis of these needs: physical, psychological, and social.

Physical Needs: information related to nutrition, follow-up, sleep and rest, medication, exercises, dealing with symptoms, risk factors, sexual relations, contraceptive methods, and vaginal care.

Psychological needs: psychological support, self-esteem, stress management, and spiritual coping strategies. All these needs are measured by the post-abortion learning needs assessment tool, which is described in the methodology part.

Subjects and Methods

Research Design

A descriptive exploratory research design was used to achieve the stated aim. The purpose of this research is to investigate post-abortion learning, physical, and psychological needs among women in settings that are both poorly defined and understudied. Researchers seek comprehensive information about support requirements and educational needs without establishing cause-effect relationships and focus on describing the multiple dimensions of post-abortion needs [19].

Setting

The study was conducted at the postpartum units (section10 and 21) in obstetrics and gynecology at Kasr El-Ainy University Hospital affiliated with Cairo University. The postpartum unit (section 10) includes 2 rooms that contain 30 beds to receive normal vaginal delivery women and women post aborted according to patient follow-up in the hospital. Meanwhile, the postpartum unit (section 21) received only women post-caesarian section and randomly received women post-abortion and contained around 20 beds for two rooms. The annual

statistical is approximately 600 post-aborted women per year (Statistical Department, 2022).

Sample

A purposive sample of 174 women who have had an abortion from obstetrics and gynecology at Cairo University Hospital (Kasr El-Ainy) who meet the following criteria: immediate post-aborted women, both primipara and multiparous with different educational levels, and any type of abortion, were included in this study.

Sample size

The sample size of 174 women who have had an abortion was calculated using the Cochran sample size formula.

$n=\frac{z^2*p*(1-p)/e^2}{1+\frac{z^2*p*(1-p)}{e^2*N}}$, $n=\frac{1.96^2*0.5*(1-0.5)/.05^2}{1+\frac{1.96^2*0.5*(1-0.5)}{.05^2*600}}$ = 174, N = Population size, z = Critical value of the normal distribution at the required confidence level, z = 1.96, p = Sample proportion, p= 0.5, and e = Margin of error, e =.05. The actual sample size is 174 women [20].

Tools for Data Collection

Two tools were used: 1) Structured interviewing questionnaire: This tool was designed by the researcher, it included two parts: a) The first part included personal characteristics such as age, marital status, educational level, work, residence, number of family members, and monthly family income. b) The second part included data related to obstetrical history as gravidity, parity, and abortion, gestational age at the time of abortion, reason and type of abortion, number of preterm and term pregnancies, number of living children, complications in a previous pregnancy, and type of complications.

2) Post-abortion learning needs assessment tool: It was developed by the researcher after an extensive literature review [13,15,16]. It consisted of three subsections regarding learning needs. In the first section 10 items related to physical needs such as nutrition, follow-up, sleep and rest, medication, exercises, dealing with symptoms, risk factors, sexual relations, contraceptive methods, and vaginal care. Psychological needs consisted of four questions (needs related to psychological support, self-esteem, stress management, and spiritual coping strategies like satisfaction, prayers, and acceptance. Social needs included five questions related to support from others, providing full care for women after abortion, providing information, and health education from health care providers. This tool was scored by using a Likert scale, in which 0 means don't know, 1 means not an important need, and 2 means an important need. The high score obtained denotes the demand for information for post-abortion women.

Tools Validity and reliability

Tools were submitted to a panel of three experts in the fields of maternity and newborn health nursing. This revision was performed to test the content validity, relevance, and clarity of the tools. Modifications were performed accordingly. The reliability of the second tool was tested using Cronbach's alpha test, and the results were reliable (0.78).

Pilot Study

It was conducted on 10% of women who have had an abortion, who were selected randomly (20 women). As such, it sought to assess how comprehensible the tools were. It also assisted in estimating the time which is required to complete the forms. Aside from the results of the pilot study, there were no changes made, and the women of the pilot study were included in the study sample

Ethical consideration

Written consent to undertake the study was granted by the ethical committee from the faculty of nursing at Cairo University, No (RHDIRB 2019041701/ 7/5/2023). The official approval came from the director of the previous setting. The researcher approached the identified women based on the criteria that fulfilled the research inclusion criteria and made them understand the purpose of the research to seek their consent. All the women who had abortions were informed that they had a right to be part of this study and they could pull out of it at any time without explanation and this would not impact their health care. The women were promised anonymity and confidentiality throughout the study process and they were ensured that all data collected were used for analysis purposes only.

Procedure

The study was in the following stages; Preparation and interviewing. Preparation phase: At this stage formal permission was sought from the ethical committee at the Faculty of Nursing Cairo University. Also, it involved a review of literature in the past years to develop and design the tools for data collection. Women for this study were identified as women only who met the inclusion criteria described above and who gave consent to be included in the study. Interviewing phase: The data collection period commenced at 9.00 am and went on up until 1.00 pm any time of the week since data was collected depending on the availability of inclusion criteria. The researcher appealed to the women of the study and outlined the intention of the study, and written informed consent was given to the researcher by all the women in the study. The researcher interviewed each study woman in the postpartum unit, and informed consent was sought in writing from each woman. A face-to-face interview was conducted for women who have had an abortion. They were asked in Arabic, and the answers were recorded. The study utilized structured Likert scale questions to determine the value of physical, psychological, and social requirements after abortion. Each surveyed item received a rating through the Likert scale using the response options Important (2), Not Important (1), and I don't know (0).

The survey questions were carefully designed to let women evaluate their abortion experiences without experiencing internal pressure regarding psychological needs. A peaceful and understanding setting allowed participants to respond to questions after receiving time to consider each item. Assessment of women who have had an abortion: physical, psychological, and social needs. Each woman takes around 30 minutes to interview to enumerate her physical needs as nutrition, follow-up, minor discomfort, danger signs, time for a return to sexual relations, family planning, perineal care, and other post-aborted needs if she wants. Meanwhile, psychological needs like how to improve her self-esteem, improve psychological support, and how to adapt to social stress after abortion. As well as social needs such as the presence of social support from husband, family, and friends, and the presence of medical places that provide full care post-abortion, etc.

The Likert scale was given only after finishing the interview session with all items included. Women evaluated their complete experiences through the discussion by using this method which prevented interruptions to the interview flow.

Statistical design

collected data were analyzed by assigning codes and then entering these codes into a tabulation personal computer. The

Statistical Package for Social Science (SPSS) including version 23 was used in this research. To make sure that there was no inconsistency in the collected data, the researcher cross-checked all the data. Data were checked for coding and entry errors. The data collected was then analyzed using percentage, mean standard deviation, and frequency distribution. Spearman's correlation was used only in the final table to assess the relationship between post-abortion learning needs and other factors such as education, marriage, age, work hours and number of pregnancies. The level of significance was used at 0.05 level of significance.

Results

Table (1): Demographic data of the women who have had an abortion (n=174)

Demographic data	No.	%
Age(years)		
<20	54	31.0
20-25	79	45.4
26-30	41	23.6
Mean ± SD	22.5±4.1	
Marital status		
Divorced	50	28.7
Married	124	71.3
Education		
Cannot read and write	17	9.8
Can read and write	28	16.1
Prep school	20	11.5
Primary school	43	24.7
Secondary school	51	29.3
University	15	8.6
Job		
Employee	43	24.7
Housewife	131	75.3
Hours of work/ day		
none	131	75.3
7	19	10.9
10	13	7.5
12	11	6.3
Mean ± SD	9.6±3.1	
Residence		
Rural	118	67.8
Urban	4	2.3
Number of family members		
3	46	26.4
4	36	20.7
5	50	28.7
6	42	24.1
Mean ± SD	4.5±1.1	
Monthly family income		
Enough	32	18.4
not enough	142	81.6

This table gives a demographic descriptive analysis of 174 women who have had an abortion; age distribution indicated that our respondents were a diverse lot with a relatively young age mean of 22 years and 45.4% of the women were within the 20 - 25-year age bracket. On the producers of marital status, 71.3% of women are married. Regarding education levels, there is a large concentration of women at the level of secondary education 29.3% While the lowest percentage, 8.6% women have completed their university education. Employment information demonstrates that more than three-quarters of women are housewives and approximately one-fourth are employers, working on average, 9 hours a day. Concerning place of residence, 67.8 percent of the women live in rural areas. Population density; The average of number of persons per household is 4 which means that economic activities and accessibility to social amenities may be influenced by the size of the household. Lastly, the sources of monthly family income are also different but the money issue of women mostly (81.6%) did not have enough income means that they were financially in crisis.

Table (2): Distribution of the women who have had an abortion according to their obstetrical history (n=174)

obstetrical history	No.	%
Number of pregnancies		
2	19	10.9
3	60	34.5
4	56	32.2
5	27	15.5
6	8	4.6
7	4	2.3
Mean ± SD	3.7±1.1	
Number of abortions		
1	78	44.8
2	66	37.9
3	23	13.2
4	7	4.0
Mean ± SD	1.7±0.83	
Gestational age at time of abortion		
8-12 week	82	47.1
13-16	56	32.2
17+	36	20.7
Mean ± SD	13±0.3	
Reason of abortion		
Accidental	3	1.7
Antiphospolipd syndrome	63	36.2
Cardiac disease	29	16.7
Systemic lupus erythematosus	20	11.5
Toxoplasmosis	15	8.6
Un controlled DM	13	7.5
Unknown cause	29	16.7
Type of abortion		
Inevitable abortion	91	52.3
Medical abortion	20	11.5
Threatened abortion	63	36.2
Number of preterm pregnancies		
1	151	86.8
2	23	13.2
Mean ± SD	0.61±.7	
Number of term pregnancy		
1	99	56.9
2	52	29.9
3	21	12.1
4	2	1.1
Mean ± SD	1.3±0.9	
Number of living children		
1	53	30.5
2	79	45.4
3	31	17.8
4	10	5.7
5	1	.6

Mean ± SD	2.0±0.87	
Complications during a previous pregnancy		
No	70	40.2
Yes	104	59.8
Type of complications		
None	70	40.2
Bleeding	19	10.9
Gestational diabetes	24	13.8
Gestational HTN	17	9.8
Hyper emesis Gravidarum	20	11.5
Preeclampsia	24	13.8

This table summarizes the obstetrical history of the women who have had an abortion, the number of pregnancies ranged from 2 to 7 with a mean of 3 pregnancies. A total of 82% of them were more common with early gestational ages (8-12 weeks) while an inevitable abortion made up 52.3%. Additionally, there are indicated diverse kinds of abortion with more often reported causes consisting of antiphospholipid syndrome 36.2%, cardiac disease 16.7%, unknown 16.7%, lupus erythematosus 11.5 %, and toxoplasmosis 8.6%. Furthermore, the number of living children varied equally from 1 to 5 with a mean = 2 children. Last, 59.8% of the participants reported some past pregnancy complications, including gestational diabetes 13.8%, Preeclampsia 13.8%, Hyperemesis gravidarum 11.5%, and bleeding 10.9%.

Table (3): Post-abortion learning needs of women who have had an abortion (n=174)

Learning needs	Important		Not important		I don't know	
	No.	%	No.	%	No.	%
Physical needs						
Nutrition	134	77.0	40	23.0	0	0.0
Follow up	131	75.3	43	24.7	0	0.0
Sleep and rest	129	74.1	45	25.9	0	0.0
Medication/ analgesics	145	83.3	29	16.7	0	0.0
Exercise	0	0.0	42	24.1	132	75.9
Dealing with symptoms	63	36.2	24	13.8	87	50.0
Danger signs	0	0.0	24	13.8	150	86.2
Return to intercourse	12	6.9	44	25.3	118	67.8
Contraception	0	0.0	44	25.3	130	74.7
Perineal care	5	2.9	40	23.0	129	74.1
Psychological needs						
Psychological Support from Family/Husband	145	83.3	0	0.0	29	16.7
Self-confidence boost	129	74.1	0	0.0	45	25.9
Dealing with stress	131	75.3	0	0.0	43	24.7
Spiritual coping strategies	131	75.3	0	0.0	43	24.7
Social needs						
Friends support	40	23.0	75	43.1	59	33.9
Services for women	44	25.3	70	40.2	60	34.5
Information support	112	64.3	12	6.9	50	28.8
Consultation support	29	16.6	85	48.9	60	34.5
Change of society's image	45	25.9	70	40.2	59	33.9

The table clarifies the perceived learning needs within the physical, psychological, and social realms. The other basic physiologic requirements, namely nutrition, follow-up, sleep, and medication, were considered important by (77- 75.3- 74.1-83.3% respectively), which shows a high level of appreciation of needs. On the other hand, the participants were found to be least knowledgeable on issues including danger signs post abortion 86.2-75.9%, exercise 74.1%, vaginal care 74.7%, birth control 75.9%, and return to intercourse 67.8% which were all labeled "I don't know". Family/husband, stress, spiritual coping strategies, and self-confidence boost were assumed as essential for psychological needs by (83.3- 75.3- 75.3-74.1 respectively).

These results depicted a high level of awareness for psychological health. Friend support, services for women, information support, consultation support, and societal image changes were on the borderline, whereas the importance of informational support stands significantly high at 64.3% in the study sample each of the remaining items was divided into two halves- those who classified it as important 43.1-40.2-48.8-40.2 %, and unimportant 56.9-59.8-51.2 Importantly, the study suggests that effective educational interventions are required that address the under-identified concerns and promote awareness of the whole range of them.

Table (4): Levels of learning needs among the women who have had an abortion (n=174)

Levels	Physical		Psychological		Social		Total needs	
	No.	%	No.	%	No.	%	No.	%
Low	45	25.9	43	24.7	0	0.0	50	28.7
Moderate	129	74.1	0	0.0	130	74.7	83	47.7
High	0	0.0	131	75.3	44	25.3	41	23.6

The table represents the distribution of physical, psychological, and social needs; three-quarters of women (75.3%) reported a high need for psychological support, while nearly three-quarters reported moderate needs in both physical (74.1%) and social (74.7%). Total need assessments reveal 28.7% of the women had low needs, whereas the biggest group (47.7%) demonstrated moderate needs, alongside 23.6% who exhibited high needs. The data show that moderate needs were experienced by most participants, yet a substantial portion of women identified high needs concentrated in psychological domains. This reflects the superordinate status of attention to psychological needs, coupled with a fairly moderate level of satisfaction with physical and social requirements.

Table (5): Correlation between learning needs and other factors

Factors	R	P
Age(years)	-0.01	0.89
Marriage	0.06	0.39
Education	0.002	0.97
Work hours	-0.18	0.01*
Number of family members	0.05	0.45
Number of pregnancies	0.07	0.35
Number of abortions	0.15	0.04*
Gestational age at the time of abortion	0.17	0.02*
Number of preterm pregnancies	0.15	0.03*
Number of living children	-0.05	0.46
Complications during a previous pregnancy	0.07	0.34

*Significant at p-value<0.05

Several predictors that were statistically significant were the working hours which had a negative association (P = 0.01), the number of abortions, gestational age at abortion, and number of early pregnancies had a positive association (P ≤ 0.05). Regarding the other predictors namely age at first intercourse, marital status, education and number of family members, they were not statistically significant (P > 0.05), hence their marginal utility in this regard.

Discussion

The goal of the current study was to identify the post-abortion learning requirements of women who had abortions and develop a recommended course of action based on those needs. The results of the current study addressed a research question regarding post-abortion learning needs, which were divided into three basic needs (physical, psychological, and social needs). They showed that nearly all women who had abortions agreed that it was crucial to learn about physical needs, such as nutrition, follow-up, sleep, and medication. Additionally, psychological needs like stress management, spiritual support, self-confidence boost, and support from family or a spouse were seen as extremely important needs. In terms of social needs, knowledge and support about how to adjust after an abortion and maintain physical, mental, and social health are crucial.

Accordingly, a study that examined the potential and benefits of WeChat health education for women following an abortion was carried out among 180 post-abortion women. The study found that the most crucial information needed concerned rest, nutrition, post-abortion sensation, medications and pills, post-abortion review, and contraceptive methods [21]. Modern contraceptive methods should be offered to women post-abortion [36].

The results of this research stress the importance of psychological needs for women after abortion, this result is congruent with a study conducted in Saudi Arabia which clarified that many women feel guilty, lonely, and afraid of social stigma after the abortion which creates negative psychosomatic effects. in light of such findings, the study reaffirms the necessity of psychological support programs to cater to the cultural and social environment of women who have undergone abortions in their respective societies, such support can go a long way in improving the lives of such women thus improving their ability to deal with the many challenges that may arise after an abortion [22].

In line with the result of this research, another study [23] determined that the absence of psychological needs in the form of support following pregnancy termination has a detrimental impact on quality of life and suggests a chance to incorporate a psychological support package into the provision of services related to pregnancy termination, which is a predictor of positive mental health and can enhance the quality of life in Rwanda.

This study also emphasizes about the importance of psychological and social need post abortion. Although social support and spirituality are important coping strategies for women going through abortion, they are frequently disregarded and underappreciated in real life this may be related to many causes; cultural stigmas and the fear of being judged specifically in areas where abortion faces societal disapproval. When women feel isolated they prefer to seek formalized psychological support because it carries more privacy compared to social support. Women from certain cultural backgrounds avoid social support because in their society asking for help during difficult times is interpreted as expression of weakness.

Furthermore, multiple studies [24, 25] emphasize that evaluating the spiritual requirements and social support levels of women undergoing abortion helps to provide tailored, comprehensive treatment that lessens the effects of psychological distress and also points to counseling services and personalized psychosocial-spiritual care can help women who have had therapeutic or elective abortions feel less psychologically distressed.

In this study, it was revealed that half of the women had moderate learning needs for social support. Likewise, a study conducted with 132 Post–termination for medical reasons (TFMR) women showed that TFMR-related distress can be reduced by social support. The factors that helped female post-abortion subjects enhance their health and satisfaction involved at least the therapy group, the partner, the immediate family, mental health professionals, and friends [26].

The results of the current study clarified that more than three-quarters of the women who have had abortions didn't know the danger signs of the post-abortion period (bleeding, foul-smelling discharge, difficulty breathing, blurred vision, leg clots, depression). This finding may suggest a gap as A lack of education or proper communication about post-abortion care seems to exist which affects the health outcomes of women significantly. Women who lack awareness about danger signs have an elevated chance of experiencing complications and delayed detection of adverse effects which affect their short-term and long-term recovery process [32]. Poor pre and post-abortion counseling or insufficient healthcare system support for addressing these concerns might explain the lack of knowledge among certain women. We will enroll possible strategies that aim to boost awareness by incorporating danger signs education into pre- post abortion counseling and implementing proper assessment of physical and psychological requirements during follow-up care.

In the same line with a study in the United States which approved that social support might have served as a protective barrier against psychological stress and stigma associated with the decision to abortion or termination of pregnancy. they discovered that having the support of their loved ones including partners, close family members, and friends was associated with increased satisfaction in the post-abortion period and improved psychological sadness which has a good impact on their health [27].

Moreover, a cross-sectional study, undertaken in two humanitarian hospitals in Africa explored post-abortion care regarding the WHO quality of care for maternal and newborn health. They stressed the need to enhance post-abortion care by several measures that are consistent with our study findings. Key intervention areas that were noted included the development of antibiotic stewardship programs to reduce hospital-acquired hospital infection and antibiotic resistance. Likewise, gaps in contraceptive use could be met through offering an organized, routine supply of contraceptives during post-abortion care services. Furthermore, the study concluded that to improve patients' satisfaction with post-abortion care (PAC), there is a need to respect patients' privacy during the examinations, improve the patient-provider relationship by being in liaison with patient's physical, psychological, and social goals as well as empowering women to participate in decision making about their treatment plans. There is a similarity between these recommendations and the findings of the current study suggesting that there was the necessity of enhancing women's psychological and educational needs post-abortion [28].

Understanding the wider impacts that emerge following an abortion when physical, psychological and social needs remain unfulfilled is essential to address. The successful treatment of these needs causes important effects on women's health both immediately and across the long term

Little understanding regarding post-abortion risks increases patients' chances of infection together with severe bleeding and problems extending beyond reproductive health [33]. The absence of information about these risks makes women wait to obtain medical help which leads to deteriorating health results. Research proves that detecting post-abortion complications early along with proper intervention leads to significant improvement in morbidity risks [34]. Appropriate healthcare measures combined with education and continued support help avoid various health issues affecting the reproductive system and pelvic region even after abortion.

Many women develop profound psychological effects when they get an abortion because they often face depression alongside anxiety and post-traumatic stress disorder (PTSD) [1]. The mental well-being of women suffering from psychological effects will worsen if they do not receive helpful psychological counseling following their abortion [16]. Women need support for their psychological health following abortion since neglected mental health issues tend to continue beyond the abortion timeline thus affecting life quality along with relationships and the ability to function normally.

Women require social support for proper healing after they undergo an abortion. Limited social backing together with social stigma causes women to experience isolation which produces unfavorable emotional consequences [15]. A weak social network prevents women from accessing healthcare which generates additional complications that harm their recovery process. Strong social networks lead women to obtain better long-term health results which include enhanced mental well-being together with better birth control usage and improved capacity to plan upcoming pregnancies [35].

The proposed a strategic plan

The proposed strategic plan aims to meet the needs of women who have had an abortion to improve women's health after abortion, and achieve better outcomes. Based on the research results, the following plan was proposed: 1) Providing

immediate psychological support to women who have suffered abortion through individual and group sessions to help them deal with feelings of sadness or anxiety after a miscarriage. 2) Increasing health awareness among women about the importance of physical and psychological care after abortion.3) Conducting preventive medical examinations to identify potential risks in the post-abortion period.4) Providing inter-pregnancy care for women who have experienced abortion to provide intensive medical and psychological support. 5)Conducting a pre-pregnancy examination to evaluate the woman's health and readiness to become pregnant again.6) Providing consultation sessions with specialized doctors about available medical options to improve the chances of future pregnancy.7) Strengthen women's support services and personal support networks by strengthening the role of friends and family, educating those close to them about their vital role in providing emotional and material support.8) Health education about abortion and early pregnancy: Educational courses can be designed that explain the differences between normal pregnancy and early pregnancy, and explain the factors that may lead to abortion. In addition to awareness courses on possible preventive methods and dealing with health complications.

Conclusion

This research reveals high levels of psychological needs among women who have had an abortion because a large number of women demonstrated elevated psychological requirements. Providing specific mental health assistance combined with education remains essential to successful post-abortion patient support. A proposed post-abortion care plan focuses on developing specialized educational content and counseling services with support networks that healthcare providers and support networks can implement. Healthcare professionals should implement these resources in their regular abortion aftercare protocols to help patients manage psychological and emotional challenges which results in enhanced health outcomes

Recommendation

Designing targeted and integrated programs that meet the needs of women who have had abortion, especially in the aspects of psychological support, health education, and psychological stress management.

formulate a proposed plan that combines educational, social, and psychological interventions to meet different needs, focusing on information support as the most important.

Limitations of the study

-This research contained a limited sample within one healthcare facility, which impacts the ability to generalize the study's findings across broader population groups, specifically in areas with different healthcare facilities, as well as cultural backgrounds or socio-economic characteristics.

-Using a purposeful sampling method created participant selection bias. The technique targets specific groups of women with associated experiences, although it could fail to represent the complete range of experiences that exist in the general public.

Ethical consideration

Written consent to undertake the study was granted by the ethical committee from the faculty of nursing at X University No (RHDIRB 2019041701/ 7/5/2023). The official approval came from the director of the previous setting. The researcher approached the identified women based on the criteria that fulfilled the research inclusion criteria and made them understand the purpose of the research to seek their consent. All the women who had abortions were informed that they had a right to be part of this study, and they could pull out of it at any time without explanation, and this would not impact their health care. The women were promised anonymity and confidentiality throughout the study process, and they were assured that all data collected would be used for analysis purposes only.

Consent for publication

NA

Availability of data and materials

The corresponding author will provide the data supporting the study's findings upon a reasonable request.

Author's contribution

All authors B.E, E. A, H.S and F.M had a major input in drafting the editorial or revising it critically for important intellectual content. All the authors have equally contributed to conceptualizing, designing, analyzing, and Manuscript preparations. The Researcher B.E, H.S and F.M collected the collection.

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Conflicts of interest

All the authors involved in this study declare no conflicting interests.

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