ORIGINAL RESEARCH ARTICLE

Effect of a psycho-awareness-training program on women's attitude and psychosomatic status post-abortion in Jazan, Saudi Arabia

DOI: 10.29063/ajrh2023/v27i8.6

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Abstract

Abortion is a common medical procedure, and women who undergo it often experience negative psychological and physical effects. This study aimed to assess the effect of a psycho-awareness-training program on women's knowledge and psychosomatic status post-abortion in Jazan, Saudi Arabia. a one-group pre- and post-test quasi-experimental design was conducted among 135 eligible women post-abortion. Researchers used an Arabic questionnaire online survey containing items on women's characteristics, knowledge of abortion, and psychosomatic status post-abortion. The majority of the participants were married (95.6%) and had a university degree (58.5%). The total satisfactory knowledge increased significantly from 29.6% at baseline to 91% post-training (p =.000). The proportion of respondents exhibiting high scores on self-confidence and self-esteem decreased significantly, dropping from 47.4% at the baseline to 12.6% after the training. The program also decreased feelings of guilt, isolation, sleep disturbance, problems in married relationships, fear of society's view, and the absence of social support. The psycho-awareness-training program had a positive effect on women's knowledge of abortion and psychosomatic status post-abortion. The program improved self-confidence and self-esteem while decreasing negative psychological effects. This study emphasizes the importance of providing psychological support and education to women who undergo abortion. *(Afr J Reprod Health 2023; 27 [8]: 58-64).*

Keywords: Abortion knowledge, psycho-awareness program, psychosomatic status, Saudi Arabia

Résumé

L'avortement est une procédure médicale courante, et les femmes qui le subissent subissent souvent des effets psychologiques et physiques négatifs. Cette étude visait à évaluer l'effet d'un programme de formation à la psycho-sensibilisation sur les connaissances et le statut psychosomatique des femmes après un avortement à Jazan, en Arabie saoudite. une conception quasi-expérimentale pré- et post-test à un groupe a été menée auprès de 135 femmes éligibles après un avortement. Les chercheurs ont utilisé une enquête en ligne par questionnaire en arabe contenant des éléments sur les caractéristiques des femmes, la connaissance de l'avortement et le statut psychosomatique après l'avortement. La majorité des participants étaient mariés (95,6 %) et détenaient un diplôme universitaire (58,5 %). Le total des connaissances satisfaisantes a augmenté de manière significative, passant de 29,6 % au départ à 91 % après la formation (p = 0,000). La proportion de répondants affichant des scores élevés en matière de confiance en soi et d'estime de soi a diminué de manière significative, passant de 47,4 % au départ à 12.6 % après la formation. Le programme a également diminué les sentiments de culpabilité, l'isolement, les troubles du sommeil, les problèmes dans les relations conjugales, la peur de l'opinion de la société et l'absence de soutien social. Le programme de psycho-sensibilisation-formation a eu un effet positif sur la connaissance des femmes de l'avortement et de l'état psychosomatique après l'avortement. Le programme a amélioré la confiance en soi et l'estime de soi tout en diminuant les effets psychologiques négatifs. Cette étude souligne l'importance d'apporter un soutien psychologique et une éducation aux femmes qui se font avorter. *(Afr J Reprod Health 2023; 27 [8]: 58-64).*

Mots-clés: Connaissance de l'avortement, programme de psycho-sensibilisation, Statut psychosomatique, Arabie Saoudite

Introduction

Abortion is a common medical procedure, and women who undergo it often experience negative psychological and physical effects. Abortion is a prevalent method of preventive healthcare that is considered safe when performed by skilled professionals using World Health Organization's recommended techniques that are appropriate for the pregnancy duration. Around 73 million

abortions are carried out worldwide annually, with three out of ten pregnancies resulting in an abortion and six out of ten pregnancies being unplanned[1].

In countries where legal restrictions limit access to abortions, such as Brazil, where abortions are only allowed in instances of rape or when the mother's life is in danger, and in Saudi Arabia, where parental or spousal authorization is mandatory, 7.4% of abortions were reported to have taken place[2]. Unsafe abortions are largely concentrated in developing nations, accounting for 97% of all such cases. Southern and Central Asia reports the highest number of unsafe abortions in Asia. In Africa and Latin America, almost three out of four abortions are considered unsafe. The most perilous conditions are present in around half of all abortions carried out in Africa[3].

The decision to undergo an abortion is a complex and global issue that is influenced by various factors such as religion, culture, laws, and psychosocial elements, resulting in different responses in different parts of the world. Women's ability to access reproductive health services is often affected by their attitudes and understanding of abortion[4].

Abortion's psychological impacts are now being given more attention in addition to its medical effects, as they can persist for years after the procedure[5]. The repercussions of an unanticipated pregnancy termination can be significant and enduring for the woman and her family if not carefully considered. Despite the gravity of the matter, there is insufficient research on the psychological effects of abortion on women. Some studies have failed to establish a link between post-abortion psychological effects and greater severity in women. However, the issue is gaining more attention and recognition alongside medical concerns[6]. There are multiple studies reported that women who have had abortions are more likely to suffer from mental health issues such as depression and stress[7]. Abortion carries social stigma because of the traditional gender roles assigned to women in society. Some individuals believe that women have a fundamental responsibility to become parents, and thus, view choosing not to have children as an affront to societal norms[8]. In light of the need to address the knowledge and psychosomatic well-being of women post-abortion, this study aimed to assess the effect of a psycho-awareness-training program on women's knowledge and psychosomatic status post-abortion in Jazan, Saudi Arabia.

Methods

Study design and setting

A one-group pre- and post-test quasi-experimental design was conducted among 135 eligible women post-abortion. The study was conducted in Jazan province, Kingdom of Saudi Arabia (KSA), between June and November 2021.

Participants

A total of 135 married women aged between 18 and 45 years who had undergone at least one abortion and resided in Jazan province were recruited for this study. Women who refused to participate were excluded from the study. The study's eligibility criteria included being married, having a history of abortion, and residing in Jazan province.

Tool development

The questionnaire used in this study was developed in Arabic after an extensive literature review. It was comprised three parts: demographic characteristics, knowledge of abortion, and psychological status. The first part documented participants' characteristics, including age, education level, marital status, previous abortion experience, previous psychological problem, and number of children. The second part evaluated participants' knowledge of abortion before and after the training program, using literature reviews to develop six multiple-choice questions with one satisfactory answer option (satisfactory=1, unsatisfactory=0). The third part assessed participants' psychological status before and after the training program, with seven items covering negative psychosocial factors such as guilt, isolation, sleep disturbances, loss of self-confidence, problems in married relationships, decreased ability to deal with life stresses, and fear of society's views and the absence of social support.

Pilot study

Thirteen women (10%) participated in a pilot study to determine the feasibility, time, and expense of

conducting a full-scale research project. Since no changes were made, the pilot participants were included in the study.

Data collection

Data were collected using an online questionnaire, email, Facebook, WhatsApp, and Telegram. A questionnaire was created with Google Forms and then collected for analysis. All completed forms were gathered and double-checked for accuracy to avoid any data gaps.

Intervention

The psycho-awareness-training program consisted of three consecutive online sessions over six days, using ZOOM software to provide tailored content to meet participants' requirements. The first session allowed participants to share their experiences related to abortion. The second session provided knowledge about the concept of abortion, causes, and risk factors. The third session covered abortion complications, psychological effects, and strategies for dealing with them.

Ethical considerations

The study was approved by the Research Ethics Committee at Jazan University. Each participant provided informed consent, and assurances were given that their data would be kept strictly confidential. Participants could opt out of the study at any time without repercussions for their decision to participate.

Statistical analysis

Data were analyzed using SPSS software version 24. Descriptive statistics were used to present qualitative data, while quantitative data were presented using appropriate mean and standard deviation descriptions. Pearson correlation coefficients were used to measure the strength of a linear relationship between two variables, Psycho-Awareness-Training Program and Women's attitude and Psychosomatic Status. Results were considered statistically significant when p was less than 0.05 and highly significant when p was less than 0.01. The Cronbach's alpha coefficient test was used to determine the questionnaire's internal consistency reliability, which was found to be good (Cronbach's α=0.824).

Results

The current study enrolled 135 eligible participants between June 2021 and November 2021, all of whom were women. Table 1 shows the characteristics of the 135 women who participated in the study. The mean age of the participants was 31.49±5.79 years. The majority of the participants were in their 20s or 30s (70.4%). Regarding educational level, more than half of the participants were university graduates (58.5%), while 28.9% had a secondary school education or less. Most of the participants were married (95.6%), and only a small proportion had previous abortion experience (44.4%). Additionally, 8.1% of the participants reported having previous psychological problems. The majority of the participants had children (83.7%).

Table 1: Distribution of studied women according to their characteristics (n=135)

Items	n	%
Age		
<20	14	10.4
20 - 29	40	29.6
30 – 39	59	43.7
≥ 40	22	16.3
Mean (SD) 31.49±5.79		
Educational level:		
Secondary School or less	39	28.9
University Student	17	12.6
Graduated from University	79	58.5
Marital status:		
Married	129	95.6
Divorced	6	4.4
Had a previous abortion experience		
Yes	60	44.4
No	75	55.6
Previous psychological problems		
Yes	19	8.1
No	116	91.9
Have children		
Yes	113	83.7
No	22	16.3

At the beginning of the study, only 16.1% of participants had a satisfactory understanding of the

Table 2: Distribution of studied women's knowledge about abortion before and after intervention (n=135)

	Pre intervention				Post intervention				P value
	satisfactory		unsatisfactory		satisfactory		unsatisfactory		
	n	%	n	%	n	%	n	%	
Concept of Abortion	112	82.9	23	16.1	135	100	0	0	0.008**
Early abortion period	41	30.4	94	69.6	120	88.9	15	11.1	0.001**
Risk factors of abortion	52	38.5	83	61.5	128	94.8	7	5.2	0.000**
Causes of abortion	45	33.3	90	66.7	131	97	4	3	0.002**
Complication of abortion	33	24.4	102	75.6	119	88.2	16	11.8	0.004**
Psychological effect of abortion	29	21.5	106	78.5	114	84.5	21	15.5	0.000**

**Chi-square test

Table 3: Distribution of studied women's psychological status related to abortion at pre- and post-intervention (n=135)

	Pre intervention				Post intervention				P value
	High		Low		High		Low		
	n	%	n	%	n	%	n	%	
Feeling guilty	77	57	58	43	9	6.7	126	93.3	0.003**
Isolation	45	33.3	90	66.7	12	8.9	123	91.1	0.007**
Sleep disturbances and nightmares.	115	85.2	20	14.8	28	20.7	107	79.3	0.000**
Loss of self-confidence and self-esteem	64	47.4	71	52.6	17	12.6	118	87.4	0.002**
Problems in married relationships	55	40.7	80	59.3	10	7.4	125	92.6	0.006**
Decreased ability to deal with life stresses	53	39.3	82	60.7	14	10.4	121	89.6	0.004**
Fear of society's view and the absence of social support	42	31.1	93	68.9	3	2.2	132	97.8	0.008**

**Chi-square test

concept of abortion. However, after training, all participants (100%) had a satisfactory understanding of the concept. Before the training, 69.6% of participants had insufficient knowledge about early abortion, while 66.7% had insufficient knowledge about the causes of abortion. These percentages significantly decreased to 11.1% and 3%, respectively, after the training (p = .001 & .002). Before the training, only 24.4% of participants had adequate knowledge of abortion complications, compared to 88.2% following the course of instruction. After the training, only 15.5% of participants had adequate knowledge about the psychological effects of abortion, compared to 78.5% of trained participants **(**Table 2**).**

Table 3 presents distribution of studied women's psychological status related to Abortion at pre- and post-intervention. The table shows the percentage of women with high and low levels of various psychological factors before and after the intervention, as well as the p-value indicating the significance of the change. Before the intervention, a high percentage of women reported feeling guilty (57%), experiencing isolation (33.3%), sleep disturbances and nightmares (85.2%), loss of self-confidence and self-esteem (47.4%), problems in married relationships (40.7%), decreased ability to deal with life stresses (39.3%), and fear of society's view and the absence of social support (31.1%). After the intervention, the percentage of women reporting high levels of these psychological factors decreased significantly, and the percentage of those reporting low levels increased significantly.

The p-values indicate that the changes observed were statistically significant for all the psychological factors studied. These results suggest that the intervention had a positive effect on the psychological well-being of the studied women.

Before the training, a considerable proportion of the participants experienced negative psychological outcomes such as high levels of guilt (57%), isolation (33.3%), and negative psychosocial factors (31.1%). Additionally, almost half of the respondents reported suffering from loss

Table 4: Correlation between studied variables at pre intervention

		Total knowledge pre intervention
Loss of self-confidence and self-esteem	*p*. value	-0.023*
Feeling guilty	*p*. value	-0.019*
Problems in married relationships	*p*. value	-0.057
Decreased ability to deal with life stresses	*P*. value	-0.068

*****Correlation coefficient

of self-confidence and self-esteem (47.4%). The majority of the participants (85.2%) also reported experiencing sleep disturbances and nightmares. However, after the training, there was a significant decrease in all of these negative psychological outcomes, with only a small percentage reporting high level of guilt (6.7%), isolation (8.9%), negative psychosocial factors (2.2%), loss of self-confidence and self-esteem (12.6%), and sleep disturbances and nightmares (20.7%). Furthermore, the participants showed a significant increase in their overall knowledge, with the percentage of participants with adequate knowledge increasing from 29.6% at baseline to 91% post-training (p = .000) (Figure 1).

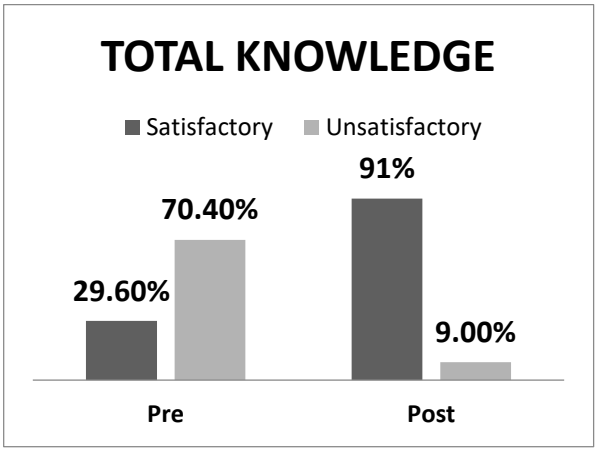

Figure 1: Distribution of studied women's total knowledge at pre- and post-intervention (n=135)

There was a significant negative correlation between participants' knowledge and their loss of self-confidence and self-esteem and feeling guilty at p. value 0.023 and p = 0.19, respectively. While there was no significant correlation with problems in married relationships, and decreased ability to deal with life stresses **(**Table 4**).**

Discussion

Abortion is the medical procedure of terminating a pregnancy by removing an embryo or fetus before it can survive outside the uterus. Females who have undergone abortions may be at a higher risk of experiencing mental health problems like anxiety, depression, and grief than those who have not. In Saudi Arabia, abortion is mostly illegal except in a few specific circumstances, including when it is necessary to save the woman's life or when the pregnancy poses a severe threat to the woman's physical or mental health[9].

More than one third of the participants in the study reported having undergone an abortion previously. Among them, only a small percentage had experienced psychological issues in the past, and most of them were parents. However, following their participation in a six-day intensive educational program that was designed to address the needs of women, all participants demonstrated significant improvements in their knowledge of abortion, including its causes, risk factors, complications, and psychological effects. The program utilized a range of teaching methods, including cognitive reprogramming, guided self-confidence, neurolinguistic programming, gratitude, community involvement, and engagement, as well as yoga exercises. These findings are noteworthy as they suggest that the successful implementation of an educational program can lead to improved well-being among women who have undergone abortions.

The results of our study are consistent with the findings of other studies. For instance, a study conducted in Thailand demonstrated that educational programs on safe abortion practices had a significant positive impact on participants' knowledge and attitudes post-intervention ($p < 0.01$)[10]. According to Silwal *et al.*[11], participants' knowledge of safe abortion after the intervention was significantly higher (p = 0.001) than it was before the intervention. The mean difference between the two tests was 64.1%. Other studies showed that the program had been an effective method of increasing the nurses' and midwives'

knowledge about post-abortion family planning counseling[12].

In Zimbabwe, a study found that supporting staff apart from doctors (such as nurses, midwifes, senior nurses or hospital administrators) played an important role in supporting women in accessing safe abortions[13]. Moreover Mollen *et al.*[14], showed that participants responded accurately, on average, to 68% of the items on a true–false measure of abortion knowledge. In addition, participants with higher levels of accurate knowledge were more likely to endorse pro-choice attitudes. Turner *et al.*[15], reported that workshop participants showed improved knowledge, attitudes, and behavioral intentions regarding abortion care. The availability of information and skills about abortion is essential to improve the coordination of care for women looking for abortion, if and when such a service is required[16].

The present study has shown that having an abortion had a negative effect on women's psychological status. In addition, the training program had a positive effect on psychological problems by reducing feeling of guilt, isolation and fear of society's view and absence of support (negative psychosocial factors). Additionally, improvements were seen in women's self-confidence, self-esteem, and sleep. This is in accordance with Wilson *et al.*[17], who reported that the intention of intervention was to decrease emotional discomfort, thereby improving the perceived sense of empowerment and coping ability. Likewise, Gerdts *et al.*[18], reported that informational smartphone applications improved women's perceived support, preparedness, and confidence post abortion. Similarly, a randomized trial found that stigma scores were higher among women who had not heard the mandated abortion counseling script than among those who had[19].

The women under study may present a valuable opportunity to cultivate self-agency and develop positive coping mechanisms to cope with social pressures in the face of stigmatizing circumstances related to abortion[20]. Psychotherapy-based interventions are effective in post-abortion grief treatment. However, we found that psychotherapy-based interventions for post-abortion grief were only somewhat effective in short term and more effective in long term[21]. Study conducted in Egypt found that there was a significant difference between pre- and post-intervention results regarding the severity of stress symptoms post intervention. Psychological intervention was associated with positive pregnancy outcomes[22].

Furthermore, our study found that improving women's knowledge increased feelings of self-confidence and self-esteem and decreased feelings of guilt. These results are in line with the study by Mohamed *et al.*[23], who reported that enhancing women's knowledge levels led to diminished stress and abortion stigma levels.

Conclusion

The Psycho-awareness training Program had a positive impact on women's understanding of abortion. Furthermore, the program was effective in reducing feelings of guilt, isolation, sleep disturbance, problems in married relationships, and fear of societal judgment, and it also improved self-confidence and self-esteem. Additionally, the study found that there was a positive correlation between knowledge and an increase in self-confidence and self-esteem, while feelings of guilt decreased.

Recommendation

Future studies should investigate the actual experiences and attitudes of women related to abortion, incorporating both qualitative and quantitative approaches. Interventions should be designed to target women at high risk of undergoing abortions. It is important for such interventions to address the psychological consequences of repeat abortions and their potential impact on future pregnancies.

Competing interest

All the authors declare no competing of interest.

Acknowledgement

The authors extend their appreciation to the deputyship for Research & Innovation, Ministry of Education in Saudi Arabia for funding this research work through the project with number: ISP20-30.

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