



# Impact of PLISSIT-Based Counseling on Health-Related Lifestyle Behaviors After Abortion: A Quasi-Experimental Study

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## Abstract

**Background:** Lifestyle counseling after abortion is essential, as it helps mitigate the heightened risk of severe complications faced by women. Effective guidance in areas such as nutrition, sleep, family planning, sexual changes, exercise, and daily activities is vital for reducing complications and improving overall lifestyle.

**Aim:** The current study was conducted to evaluate the impact of counseling based on PLISSIT model on women's total life style after abortion.

**Subjects & Methods: Design:** it is a quasi-experimental pre-post study.

**Sample & Settings:** A convenient sample of 92 women who had abortions affiliated obstetrics & gynecology unit at Beni-Suef University Hospital. Tools: (1) A Structured Interview Questionnaire. (2) Women's lifestyle after abortion. (3) Supportive material (Arabic booklet). (4) Post-Abortion Counseling Based on the PLISSIT Model.

**Results:** The mean personal a habit pretest was 11.08±8.01 that improved to 20.59±5.85 posttest, 77.2% & 45.7% of the studied women had unhealthy lifestyle & always saw social media useless regarding abortion pretest, respectively, which improved posttest to 13%. & 14.1 posttest. There was a statistically significant improvement among the studied women regarding mean of Lifestyle sub-items after abortion posttest ( $p$  value  $\leq 0.01$ ).

**Conclusion:** There was a statistically significant improvement among the studied women regarding total lifestyle after abortion and the impact of social networking sites on women after the abortion posttest as well. Women's sociodemographic characteristics did not have any effect on their lifestyle, neither pre-counselling nor post-counselling.

**Recommendations:** Enhancement of nursing rule as nurses may ask about the women's intentions for upcoming pregnancies and keep an eye on the family planning readiness.

**Key words:** Impact, Counseling, PLISSIT Model, Women's Lifestyle, Abortion

## Introduction

Lifestyle is a complex and relative concept shaped by time and individual as well as social values. Various factors influence perceptions of women's health and status, covering physical, psychological, social, and environmental dimensions. Understanding the post-abortion health behaviors of women is crucial for promoting optimal health, yet limited research has focused on the lifestyles of women who have undergone an abortion [1-6].

Lifestyle counseling is crucial in the post-abortion period, as women who have undergone abortion are at increased risk for severe complications [7-11]. Proper counseling regarding nutrition, sleep, family planning methods, sexual changes, exercise, and daily activity is key to reducing post-abortion complications and enhancing women's lifestyle [12-20].

Maternity nurses play a crucial role in the quality of antenatal/postnatal care improvement, which provides woman education and support. At the same time, the nurse can provide health promotion & psychosocial services include assessment, health education, counseling & appropriate referral [21-27]. The post-abortion period is a very important time for woman; it has an effect on a woman's Lifestyle and her family. Nurses play a multi-disciplinary role during post-abortion as a direct care provider, manager, educator, monitors, coordinators, active listeners, managers, counselor, and researcher to promote post-abortion woman health, which sequentially reflected bone minimizing mortality, morbidity and correcting misconceptions

and ill health behaviors post-abortion among patients. As well as improving women's Lifestyles post-abortion. This contributes to reducing morbidity and mortality, correcting misconceptions, and addressing unhealthy behaviors post-abortion among patients [28-31].

During the initial interview, nurses must establish a positive rapport with women post-abortion to gain their trust and encourage open communication regarding their needs [32]. Nurses play a vital role in supporting the well-being of these women, initiating interventions to improve their physical and emotional conditions independently [33]. It is essential for nurses to respond with acceptance and respect, ensuring privacy and nonjudgmental attitudes, as women may feel vulnerable and anxious. High levels of anxiety may arise during evaluations and examinations, especially pelvic exams, which nurses should navigate with sensitivity towards women's modesty and any misconceptions they may hold [34].

After a miscarriage, nurses play a vital role in monitoring the woman's physical, emotional, and psychological recovery, ensuring that any potential complications are detected early and that appropriate care is provided [35]. Nurses play a multifaceted role in monitoring and supporting women's health post-abortion. They assess vital signs for recovery, including temperature, blood pressure, and heart rate, to detect complications like infection or excessive bleeding. Emotional well-being is another focus, with nurses providing support for mental health issues and referrals to professionals as needed. They ensure monitoring for complications and retained tissue and recognize signs of future pregnancy readiness while collaborating with healthcare teams for comprehensive care [36-40]. Additionally, nurses educate women on recovery, contraception, and cultural sensitivity to improve outcomes, serve as counselors to foster communication with clinicians, manage administrative responsibilities to prevent misdiagnosis, and coordinate care among healthcare professionals. Finally, they engage in research to enhance care models and support systems for women post-abortion, researching psychological effects and effective interventions [41-49].

### Aim of the study

There is limited research on the use of PLISSIT-based counseling to improve lifestyle behaviors after abortion. So, the current study was conducted to evaluate the impact of counseling based on PLISSIT model on women's total Lifestyle after abortion.

## Subject and Method

### Research design:

A quasi-experimental (pre- and post-test) research design was used in this study.

**Setting:** The current study was conducted at the post-natal unit, which is affiliated with the department of obstetrics and gynecology at Beni-Suef University Hospital.

### Subjects:

### Sample type:

Consecutive sampling (include all eligible women during the study period) of 92 women who had abortions in the previously mentioned setting.

### Sample Size:

The total number of women who had abortions in one year, beginning in September 2022 and ending in August 2023, is 121 at Beni-Suef University Hospital, so the target population of this study is 92 women who had abortions. The sample size calculation was done using the following equation using the Steven and Thompson equation to calculate the sample size from the next formula [50]:

$$n = \frac{N \times P(1 - p)}{[N - 1 \times (d^2 \div z^2)] + p(1 - p)}$$

N= population size = 121

z2= 1.96

d2= 0.05

p= 0.50

$$n = \frac{121 \times 0.50(1 - 0.50)}{[121 - 1 \times (0.052 \div 1.962)] + 0.50(1 - 0.50)} = 92$$

n= sample size = 92

### Tools of data collection:

Data were collected using the following tools:

#### Tool I: A Structured Interview Questionnaire

This questionnaire was designed by the researcher based on reviewing related literature, and it was written in simple Arabic. It consists of socio-demographic data and general characteristics. It was concerned with demographic characteristics of the studied women after abortion, which included age, marital status, educational level, type of occupation, and area of residence.

#### Tool II: Women's lifestyle after abortion

A tool adapted from Ramadan et al. (2021) and translated into Arabic was utilized to assess women's post-abortion lifestyles [31]. This 48-item instrument is divided into seven parts: Smoking and alcohol, Nutritional lifestyle, Weight and exercise lifestyle, Personal habits, Sleeping, Spiritual habits and relationships, and Sexual intercourse. Items were rated on a three-point Likert scale (always=0, sometimes=1, never=2), with scores summed and converted to a percent score. A total score below 60% (<57.6 points) indicated an unhealthy lifestyle, while a score of 60% or above indicated a healthy lifestyle. The researcher also developed a supportive Arabic booklet to provide women with information on post-abortion care, counseling for lifestyle improvement, overcoming unhealthy habits, and tips for physical, psychological, and emotional recovery.

#### Tool III: Information technology

The researcher developed a ten-item tool, informed by literature reviews to assess the impact of social networking sites on women post-abortion [51-52]. The tool uses a three-point Likert scale (always=0, sometimes=1, never=2) for its 10 items, yielding a total score out of 20. This score is converted to a percentage, with classifications of Poor (<50%), Moderate (50%-<70%), and Good ( $\geq 70\%$ ).

#### Tool IV: Post-Abortion Counseling Based on the PLISSIT Model

This program, developed in Arabic by a researcher after reviewing literature is designed for post-abortion counseling of women. It utilizes the PLISSIT model and covers aspects of abortion and post-abortion lifestyle, including its definition, signs and symptoms, causes, risk factors, types, complications, management, and lifestyle considerations [52-54].

### Data collection included 4 phases as follows:

#### Phase I: Assessment (preparatory) phase:

The study involved reviewing literature and theoretical knowledge from various sources, including books, articles, and online periodicals, to create data collection and post-abortion counseling tools based on the PLISSIT model. Approval was secured from the Faculty of Nursing dean to Beni-Suef University Hospital. A pilot study, conducted on 10% (9 women) of the sample, tested tool applicability, clarity, and efficiency; no modifications were needed, and these participants were included in the main study. Data on socio-demographic characteristics, obstetrical and gynecological history, lifestyle post-abortion, and pre-counseling information using the PLISSIT model were collected through individual interviews, with each questionnaire taking 10-20 minutes.

#### Phase II: Planning phase:

The researcher utilized the PLISSIT model to determine optimal timing for post-abortion counseling for each woman. Following an initial assessment, sessions were planned and implemented, focusing

on objective setting, learning content determination, preparation of the session setting, methodology and media design, and the selection of an evaluation tool.

### **Phase III: Implementation (Intervention) Phase:**

Following ethical approval from the dean of nursing and hospital director, the researcher conducted individual, oral-consent interviews with post-abortion women in the post-natal unit at Beni-Suef University Hospital. Data collection spanned six months (mid-February to mid-August 2024), with the researcher present three days a week (Sunday, Tuesday, Thursday) during morning and afternoon shifts (9:00 am - 7:00 pm). Each interactive session, lasting 45 minutes to one hour, took place in the unit's waiting area.

*The session was run based on the PLISSIT model as follows:*

#### **Step (1) Permission (P):**

The researcher initiated the study by welcoming each woman individually in a private setting and obtaining verbal consent after explaining the study's purpose, benefits, and voluntary nature. To build rapport, the researcher used open-ended questions and actively listened without judgment. Subsequently, the researcher discussed women's information regarding abortion, including its definition, common factors, causes, signs, symptoms, types, and complications, as well as lifestyle changes, while continuing to listen attentively.

#### **Step (2) limited information (LI): -**

The researcher provided clear, accurate information on abortion, its causes, complications, and post-abortion lifestyle. Educational content was delivered verbally and via a booklet, addressing misconceptions such as abortion not always preventing future pregnancies and physical exertion not being a direct cause. Emphasis was placed on correcting unhealthy habits like alcohol consumption and smoking, assessing nutritional lifestyle, maintaining healthy weight, and engaging in regular physical activity. The session also covered improving personal hygiene, fostering healthy social relationships, encouraging spiritual connection, and guiding safe resumption of sexual activity, with opportunities for questions.

#### **Step (3) specific suggestions (SS):**

The researcher provided personalized guidance to address individual needs and concerns, focusing on managing post-abortion conditions. Key recommendations included adopting a balanced, iron-rich diet, maintaining healthy nutritional habits, quitting or reducing smoking with coping techniques, practicing stress management through deep breathing or light exercise, and addressing fears about future pregnancies and sexual relations by normalizing feelings and encouraging partner communication. The aim was to support women in adopting healthy lifestyles, including appropriate physical activity and exercise, through practical, realistic, and context-specific advice.

#### **Step (4) Intensive Therapy (IT):**

The research involved applying a final step to women experiencing severe emotional or psychological distress post-abortion. These women were referred to specialized mental health services, such as psychologists, social workers, or cardiologists, within the hospital or community programs, with respect for privacy. The researcher provided reassurance and emphasized seeking help. Advice included quitting smoking, using natural methods for uterine cleaning post-abortion, prioritizing sleep, seeking social support, adopting healthy habits (exercise, diet), using vaginal lubricants, and utilizing tools like vibrators to improve lifestyle. The study utilized supportive materials like pictures, a laptop, and videos based on the PLISSIT model for a 4-month counseling booklet phase. No cases required referral to a sex therapist, social worker, or medical/psychological specialist.

### **Phase IV: Evaluation phase:**

The researcher re-evaluated the impact of PLISSIT model-based post-abortion counseling on women's lifestyles four months after the intervention. This evaluation utilized the same measurement tools as the initial assessment and was conducted via Zoom video calls or home visits over a one-month period.

#### **Ethical Considerations:**

The research approval was obtained from the Faculty of Medicine, Beni-Suef Scientific Ethical Committee before starting the study (Approval number: FMBSUREC/03102023). The investigator clarified the objectives and aim of the study to the women included in the study before starting.

#### **Administrative design:**

Official permission was obtained by submission of official letters issued from the dean of the faculty of nursing, Beni-Suef University, to the manager of Beni-Suef University Hospital. The title and aim of the study were explained, as well as the main data items and the expected outcomes.

#### **Statistical Analysis**

Data were summarized, tabulated, and presented using descriptive statistics in the form of means and standard deviations as a measure of dispersion. A statistical package for the social sciences (SPSS), version 26, was used for statistical analysis of the data, as it contains the test of significance given in standard statistical books. Qualitative data were expressed as a percentage. The chi-square ( $X^2$ ) test of significance was used in order to compare proportions between qualitative parameters. For quantitative data, a comparison between two variables was done using a student's t-test. The t-test is used when the cell sizes are expected to be large. If the sample size is small (or you have expected cell sizes  $< 5$ ). Probability (P-value) is the degree of significance; less than 0.05 was considered significant. The smaller the P-value obtained, the more significant the result; less than 0.001 was considered highly significant (\*), and the correlation coefficient was done by using the Pearson correlation test.

### **Results**

**Figure (1):** found that 66.3% of women aged 20-30, 87% were married, 42.4% had intermediate education, and 81.5% were housewives, with 58.7% from rural areas and 76.1% having insufficient monthly income.

**Table (1)** presents that, less than half (45.7%) of the studied women were always saw social media useless regarding abortion which improved posttest to (14.1%). There was a statistically significant improvement among the studied women regarding the impact of social networking sites on women after abortion posttest (p value  $\leq 0.01$ ).

**Table (2)** shows that, the highest mean during pretest for personal a habit which was  $11.08 \pm 8.01$  and improved to  $20.59 \pm 5.85$  posttest. There was a statistically significant improvement among the studied women regarding mean of Lifestyle sub-items after abortion posttest (p value  $\leq 0.01$ ).

**Figure (2):** shows that, 77.2% of the studied women had unhealthy Lifestyle pretest which improved posttest to 13%. There was a statistically significant improvement among the studied women regarding total Lifestyle after abortion posttest (p value  $\leq 0.01$ ).

**Figure (3):** represents that, there was no statistically significant relation between the studied women' total Lifestyle level and their socio-demographic characteristics during pre and posttest.

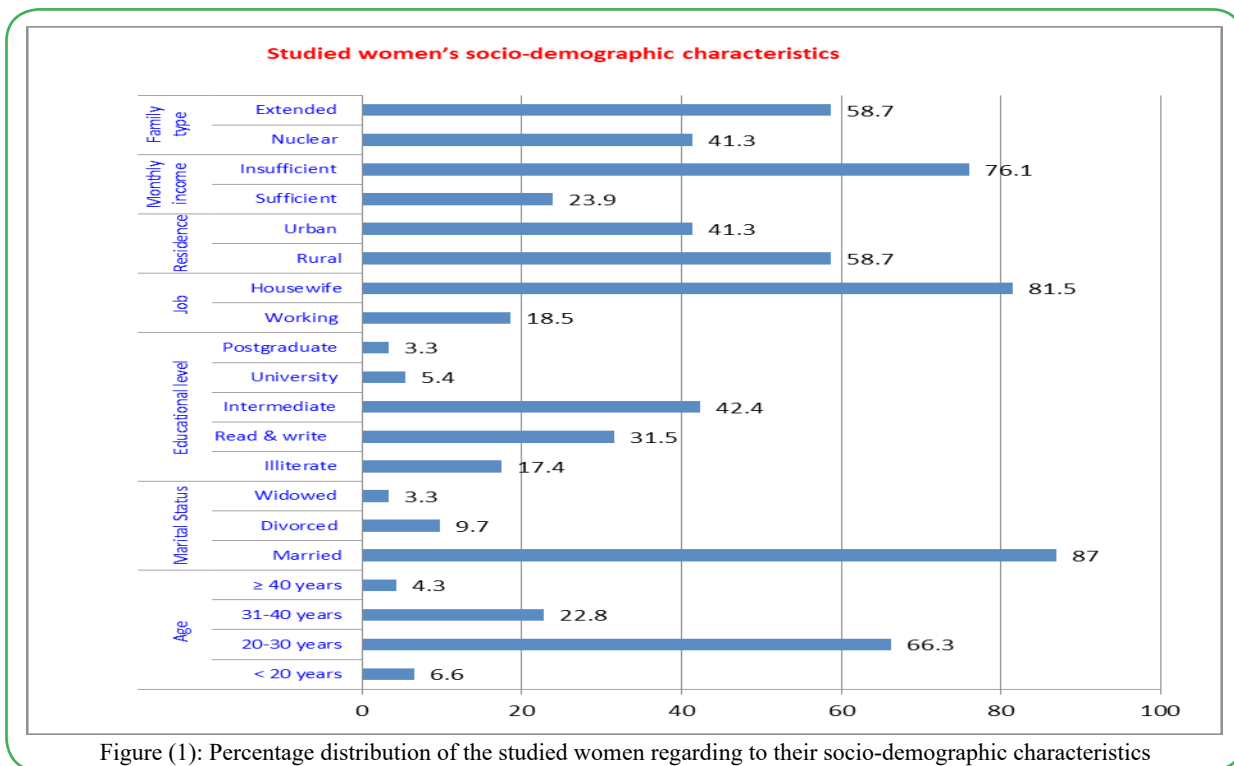


Figure (1): Percentage distribution of the studied women regarding to their socio-demographic characteristics

Items	Pretest						Posttest						X <sup>2</sup>	p value
	Always		Sometimes		Never		Always		Sometimes		Never			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
You can obtain information about abortion from a health team worker who provides care for maternal health services.	24	26.1	26	28.3	42	45.7	55	59.8	27	29.3	10	10.9	13.977	0.007**
I frequently utilize social networking sites & media, but I plan to seek accurate information from trusted sources post-abortion.	26	28.3	28	30.4	38	41.3	51	55.4	26	28.3	15	16.3	14.132	0.007**
Social media useless for me regarding abortion	42	45.7	30	32.6	20	21.7	13	14.1	21	22.8	58	63.0	14.619	0.006**
During pregnancy, it is recommended to take prescribed medications online, regardless of whether they are appropriate or not.	36	39.1	32	34.8	24	26.1	15	16.3	24	26.1	53	57.6	15.695	0.003**
The individual is using social media inappropriately, causing distraction and escalating family conflicts.	46	50.0	29	31.5	17	18.5	14	15.2	23	25.0	55	59.8	13.283	0.010**
People often resort to online searches for health problems during pregnancy or after abortion, rather than consulting a physician.	39	42.4	33	35.9	20	21.7	11	12.0	22	23.9	59	64.1	16.135	0.003**
The use of social networking sites during the post-abortion period has been found to increase symptoms of depression, anxiety, and stress.	35	38.0	34	37.0	23	25.0	10	10.9	19	20.7	63	68.5	15.639	0.003**
Social media and networks were improved my Lifestyle and quality of life post abortion	25	27.2	31	33.7	36	39.1	56	60.9	20	21.7	16	17.4	17.560	0.002**
Engaging with obstetricians-gynecologists on social networking sites can significantly prevent complications during abortion procedures.	20	21.7	33	35.9	39	42.4	58	63.0	25	27.2	9	9.8	14.397	0.006**
Follow the information on social media sites that contradict the opinion of the treating physician.	37	40.2	34	37.0	21	22.8	17	18.5	21	22.8	54	58.7	13.940	0.009**
<b>Total mean ± SD</b>	<b>8.15±3.05</b>						<b>14.69±3.25</b>						<b>t test</b>	<b>0.000**</b>
													<b>14.031</b>	

Table (1): Percentage distribution of the studied women regarding to the impact of social networking sites on women after abortion

\* Statistically significant at p≤0.05

\*\* High statistical significant at p≤0.001

Items	Pretest			Posttest			t test	p value
	Mini	Max	Mean±SD	Mini	Max	Mean±SD		
Smoking & alcohol	6	11	8.35±1.26	8	12	11.17±0.96	16.932	<0.001**
Nutritional Lifestyle	4	20	6.41±6.22	4	20	13.41±5.37	8.790	<0.001**
Weight and exercise	2	8	1.85±2.11	2	8	5.49±2.30	10.7942	<0.001**
Personal habits	2	27	11.08±8.01	2	28	20.59±5.85	8.935	<0.001**
Sleeping	2	8	2.88±1.95	2	8	5.88±2.12	9.645	<0.001**
Spiritual habits & relationships	2	7	3.26±1.884	2	8	5.76±1.78	10.452	<0.001**
Sexual intercourse	4	10	4.35±2.75	4	12	8.52±2.17	11.636	<0.001**
Total	16	62	38.17±10.99	38	89	68.33±10.38	19.951	<0.001**

Table (2): Comparison between the studied women regarding to their Lifestyle means of sub-items after abortion

\* Statistically significant at p≤0.05

\*\* High statistical significant at p≤0.001

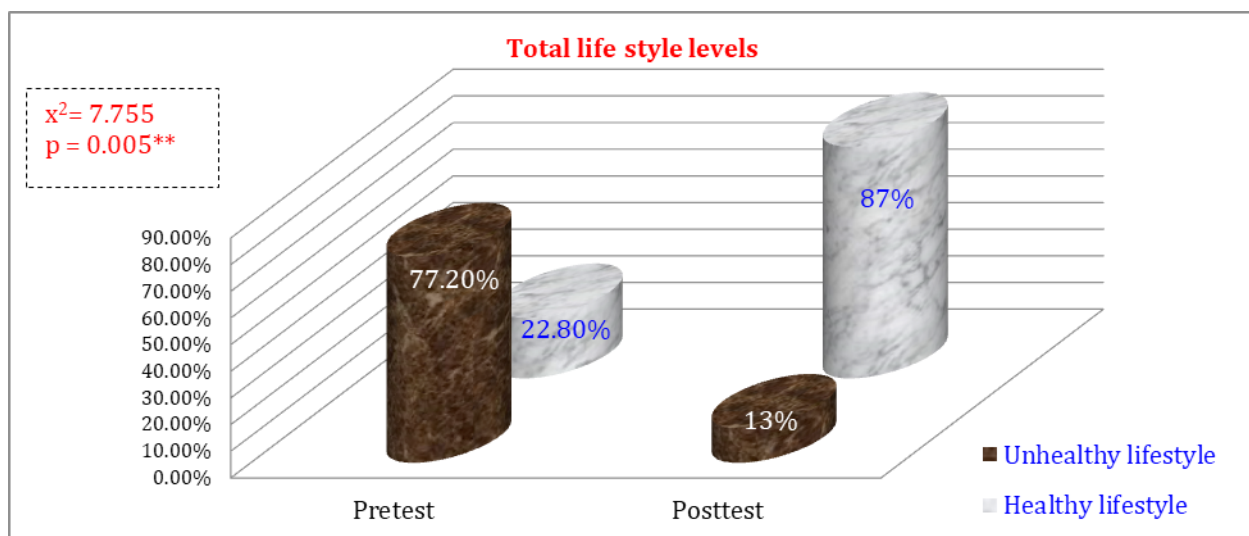


Figure (2): Percentage distribution of the studied women regarding to their total Lifestyle level after abortion

\* Statistically significant at p≤0.05

\*\* High statistical significant at p≤0.001

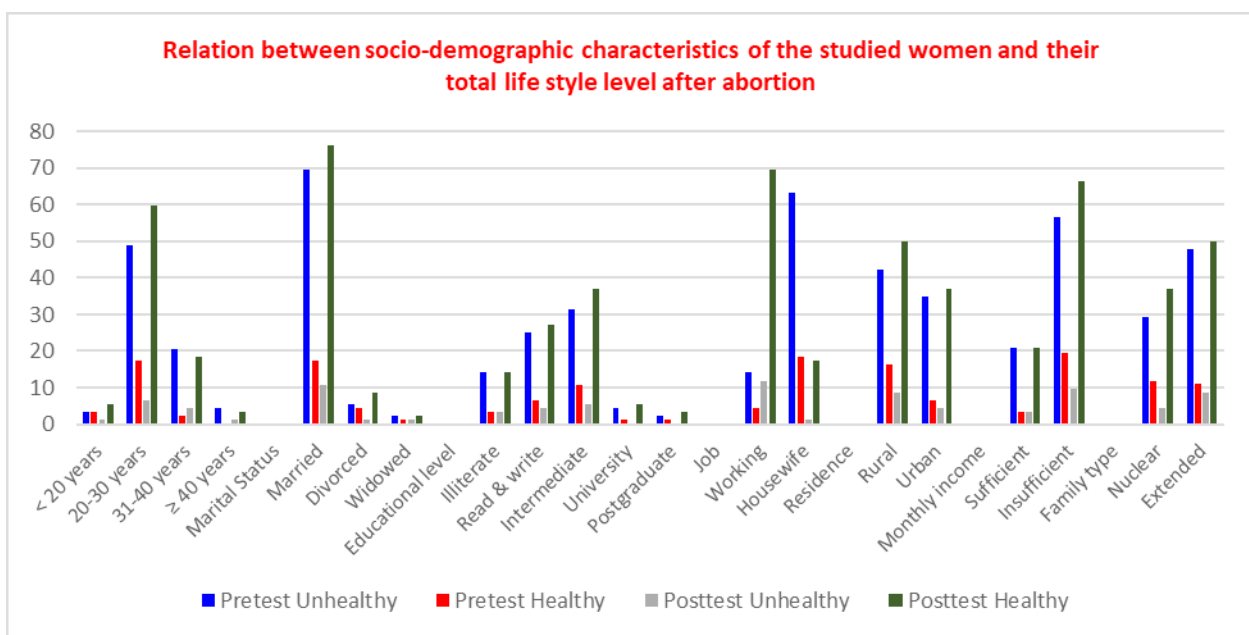


Figure (3): Relation between socio-demographic characteristics of the studied women and their total Lifestyle level after abortion

## Discussion

Choosing a lifestyle following an abortion is challenging for many women. Regardless of the circumstances, it is never a pleasant feeling for a woman to make such decisions. In the case of an unintended pregnancy, it may occasionally provide a sense of relief, but more often than not, women are overwhelmed by feelings of emotional loss, despair, shame, and anger over having an abortion. Therefore, the nurse must consider how the woman feels, even if she does not express emotions or does not feel anything at all [56].

Concerning women's lifestyle after abortion, the results is presented the total of means of sub-items of lifestyle behaviors after abortion  $38.17 \pm 10.99$  during the pre-counseling phase. This improved post-counseling to  $68.33 \pm 10.38$ . There was a statistically significant improvement among the studied women in relation to lifestyle behaviors following the implementation of the counseling sessions.

The study found that most women had a healthy lifestyle concerning smoking and alcohol both before and after counseling, with all improving post-counseling. This aligns with research by Hamadneh and Hamadneh (2023), which demonstrated significant improvements in smoking behaviors among pregnant women following an educational intervention [57].

Concerning the comparison between the studied women regarding their lifestyle sub-items after abortion, the present study revealed improvement across all lifestyle areas after counseling, including smoking, alcohol consumption, nutrition, sleep, weight, exercise, spirituality, and sexual intercourse. There was a highly statistically significant improvement in the mean scores of all lifestyle sub-items related to modern educational information on abortion post-counseling. From the researcher's point of view, this may be attributed to the completeness, comprehensiveness, accuracy, and effectiveness of the counseling program based on the PLISSIT model.

This study found a statistically significant improvement in women's quality of life post-intervention, aligning with Zahmatkesh et al. [58]. Mirian et al. (2023) also reported an increase in women's personal habits from a mean score of  $107.42 \pm 15.08$  pre-intervention to  $126.72 \pm 31.01$  post-intervention [59].

In a study examining the effects of social networking sites on women post-abortion, it was found that over 40% of participants initially viewed social media as ineffective regarding abortion discussions, which decreased to under 20% after counseling. This significant positive change aligns with Potter et al. (2023), who noted that a third of women considered social media to be unhelpful and misinformation-prone regarding abortion [60]. Additionally, Gill et al. (2019) reported improved use and satisfaction with mobile technology in supporting post-abortion care after a web-based intervention [61].

There was no statistically significant relationship between the impact level of social networking sites and family type among the studied women. However, women from extended family types showed improved impact levels after counseling sessions. This finding aligns with Ahinkorah et al. (2020), who found no significant link between mass media exposure and family type in post-abortion influence [62]. Conversely, Gouy et al. (2024) reported a significant relationship between the effects of social media and the women's age and occupation [50].

The study indicates that approximately 20% of women had a healthy lifestyle before counseling, which improved significantly afterward, likely due to the PLISSIT model's positive impact on lifestyle behaviors. This finding is consistent with Turner et al. (2018), who noted that about two-thirds displayed healthy behaviors following an educational program, and Raphi et al. (2021), who reported significant lifestyle improvements four weeks post-intervention [63-64].

Concerning relation between socio-demographic characteristics of the studied women and their total Lifestyle level after abortion during pre-counseling and post counseling, the current study reported that, there was no statistically significant relation between the studied women' total Lifestyle level and their socio-demographic characteristics during pre-counseling and post implementation of counseling sessions program.

The study reveals a significant link between age and lifestyle enhancements after counseling, particularly among older women (20–30 years), attributed to their emotional maturity. This finding is consistent with Hussein et al. (2019), who reported healthier lifestyle changes in older women post-counseling [65]. In contrast, Sami & Abdel-Aziz (2021) observed no notable age-related lifestyle changes prior to counseling. However, the positive outcomes following counseling demonstrate the model's effectiveness across various age groups [66].

While marital status did not show a significant relationship with lifestyle levels, both married and divorced/widowed women improved their lifestyle scores after PLISSIT-based counseling. This indicates the counseling's effectiveness and suggests a transition necessitating further knowledge. These findings support prior studies showing positive behavior changes and reduced psychological distress from emotional support, regardless of marital status.

Research indicates a notable connection between education level and pre-counseling lifestyle quality, with more educated women leading healthier lives. Counseling improved lifestyles across all educational levels, particularly for those with intermediate education, showcasing the intervention's inclusivity. This supports El-Nemer et al. (2021) on education's impact on health awareness. The counseling model successfully enhanced lifestyle scores among less educated women, proving its accessibility and adaptability [67].

Both working and non-working women showed improved lifestyle scores after counseling sessions, despite no significant relationship between job status and lifestyle level ( $p > 0.05$ ). Abortion notably influences women, particularly non-working ones, to pursue information on lifestyle and recovery, supporting findings by Mostafa & Ghoneim (2018) that reproductive health interventions are beneficial across work statuses with a focus on psychosocial support [68].

Both urban and rural women showed lifestyle improvements following counseling sessions, despite no significant association with place of residence ( $p > 0.05$ ). The motivation for lifestyle enhancement post-abortion, especially for those who marry young, aligns with findings from Nassar & Hassan (2020), emphasizing the effectiveness of appropriately designed structured counseling for rural populations [68].

Post-counseling, a notable link with monthly income was found, especially enhancing rural women's lifestyles. Higher-income women gained more from counseling due to better access to health resources, supporting previous findings by Ahmed et al. (2020) and indicating counseling's role in alleviating economic disparities as noted by Farag et al. (2022) [70-71].

Women in extended family settings demonstrated improved lifestyles after counseling sessions, though no significant differences were found between nuclear and extended family types ( $p > 0.05$ ). This enhancement is linked to their motivation for lifestyle improvement post-abortion, echoing Salem & Ibrahim's (2021) findings on lifestyle changes after miscarriage across different family structures [72].

The study found that women's lifestyles improved significantly following counselling sessions, leading to healthier habits and fewer unhealthy ones. Statistical analysis confirmed these changes. The success is attributed to counselling, educational lectures, and various teaching methods, including the use of Arabic booklets [73-82]. These booklets, which should be concise, straightforward, and

visually appealing, supported other educational efforts, aligning with Edgar Dale's Pyramid of Learning, which suggests varied retention rates based on learning methods [83-94].

#### Limitations of the study: -

- Low Educational Level of Participants: Some participants in the study were illiterate or had low levels of education. As a result, the researcher had to read the questionnaire aloud and explain its content verbally. This process may have unintentionally introduced interpretation bias, despite the researcher's efforts to maintain neutrality
- Short Hospital Stay: Many women were discharged quickly after abortion, which limited the available time for in-depth counseling and follow-up.
- Despite these limitations, the study provides valuable insights into the application of the PLISSIT model in post-abortion counseling and contributes to filling a gap in the local literature.

#### Conclusion

There was a statistically significant improvement among the studied women regarding total lifestyle after abortion and the impact of social networking sites on women after the abortion posttest as well. Women's sociodemographic characteristics did not have any effect on their lifestyle, neither pre-counseling nor post-counseling.

#### Recommendations

- Enhancement of nursing role as nurses may ask about the women's intentions for upcoming pregnancies and keep an eye on the family planning readiness. Nurse could also offer advice on lifestyle changes, preconception care, and health management to enhance future pregnancy outcomes.

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