Effect of an Endometrial Cancer Preventive Program on Menopausal Women's Health Behaviors Utilizing Health Beliefs Model

Yomna Mohamed Elsayed[1], Hend Abdallah Elsayed Afifi [2] and Gehad Gamal El Elsayed[3]

(1) Demonstrator of Obstetrics and Gynecology Nursing, Faculty of Nursing, Benha University, (2) Professor of Obstetrics and Gynecology Nursing, Faculty of Nursing, Benha University and (3) Lecturer of Obstetrics and Gynecology Nursing, Faculty of Nursing, Benha University.

Abstract

Background: menopause is tightly linked to an elevated risk of endometrial cancer which can be mitigated by utilizing the health beliefs model and promoting preventive health behaviors. **Aim:** The research aimed to investigate the effect of an endometrial cancer preventive program on menopausal women's health behaviors utilizing health beliefs model. **Design of the study**: The study design was quasi-experimental. **Study setting:** The current reseaech was carried out at administrative building of Benha University Hospitals. **Study sample:** In accordance with the inclusion criteria, a purposive sample of 74 menopausal women was chosen and split equally into two groups, each consisting of 37 menopausal women. **Tools of data collection:** Three tools were employed: tool (I) a five-part structured interviewing questionnaire (personal characteristics, menstruation, contraception, medical and family history, assessment of menopausal women's knowledge, tool (II) health beliefs model scale and tool (III) health promotion lifestyle profile-II **Results**: Following program application, all items of knowledge, health beliefs, and behaviors related to endometrial cancer prevention improved statistically significantly in the study group compared to the control group ($P \leq 0.001$). Additionally, before and after program application, there was a very statistically significant positive correlation ($P \leq 0.001$) between the overall scores of knowledge, health beliefs, and health behaviors. **Conclusion:** Menopausal women's knowledge, health beliefs, and health behaviors about endometrial cancer prevention were improved by a preventive program based on the health beliefs model. **Recommendation:** endometrial cancer prevention strategies should be incorporated into current women's health programs at the primary care level to encourage early identification and fair access to preventive services,.

Keywords: Endometrial cancer, health behavior, health beliefs model, menopause, preventive program.

Introduction:

Menstruation permanently stops after menopause, which signifies the decrease of ovarian follicular activity and the end of reproductive potential. After 12 continuous months of amenorrhea without any pathological or physiological causes, menopause is proven. The average age of onset is between 45 and 55 years old worldwide. The age of menopause is influenced by a number of demographic, genetic, lifestyle, and menstrual and reproductive history factors. The risk of some diseases, such endometrial cancer, may also be influenced by factors that affect menopause age **(Garg, 2024).**

A malignant growth that starts in the endometrium is called endometrial cancer. Endometrial cancer's precise cause is yet unknown. Obesity, diabetes mellitus, early menarche, late menopause, polycystic ovarian syndrome, parity, breastfeeding, gravidity, hormone replacement therapy, and exposure to infertility treatment are among the several risk factors for endometrial cancer. Postmenopausal vaginal bleeding is the most prevalent symptom. Other symptoms including pelvic pain and

abdominal distension may appear in later stages **(Ierullo, 2025; Pados, 2024).**

Early identification of endometrial cancer is currently limited by the lack of a standardized screening tool. Usually, women don't seek medical attention until they have symptoms. The main treatment, which cures the majority of women, is surgical uterine excision. For women who are at a high risk of recurrence, adjuvant therapy is advised. Utilizing the body's immune system, immunotherapy has demonstrated potential in treating advanced or recurring endometrial cancer **(Bosse, 2024).**

Treatment is less successful than prevention. By modifying risk factors as much as possible, prevention can lower the chance of endometrial cancer. Endometrial cancer risk can be considerably reduced by primary prevention, which should concentrate on encouraging healthier lifestyle choices such eating a balanced diet, exercising frequently, and maintaining a healthy body weight **(Baker-Rand and Kitson, 2024).**

Menopause is a major life transition that is impacted by social standards, cultural beliefs, and individual lifestyle decisions. More severe symptoms are frequently experienced by women who have a negative perception of menopause. The health beliefs model, which emphasizes endometrial cancer prevention and illustrates the connection between ideas and behaviors, is one of the models used to explain health behaviors **(Aljunaid et al., 2024).**

A woman's propensity to participate in health activities is influenced by a number of important aspects, including perceived susceptibility, severity, advantages, barriers, self-efficacy, and cues to action, as highlighted by the health beliefs model (HBM). By using the health beliefs model, interventions can be customized to meet women's worries, empower them to take charge of their health, and promote preventative measures, thereby lowering menopause risks and preventing endometrial cancer **(Lv et al., 2025).**

Actions that affect general health during menopause are referred to as health behaviors. Actions, whether deliberate or inadvertent, can either improve or worsen health. Substance abuse, nutrition, exercise, sleep hygiene, sexual behavior, usage of healthcare services, and treatment compliance are a few examples. Adopting healthy habits improves wellbeing, prolongs life, saves healthcare costs, and lowers the chance of endometrial cancer **(Tabrizi et al., 2024).**

As women's initial point of contact, nurses are crucial in preventing endometrial cancer. In order to promote health and dispel myths regarding endometrial cancer, nurses are essential. Nurses are skilled in tertiary prevention, secondary prevention through screening and early identification, and primary prevention through lifestyle changes. Additionally, nurses help menopausal women overcome obstacles to endometrial cancer prevention and make educated health decisions. Because of their strong ties to the community, nurses can improve health literacy, disseminate important information, and encourage women to participate actively in healthcare **(Naito, 2024).**

Significance of research:

After breast cancer, endometrial cancer is the second most prevalent cancer in women and the most frequent gynecologic cancer in the western world. Endometrial cancer is the sixth most prevalent cancer in women worldwide and the 14th most common cause of death for women. Endometrial cancer is becoming more common, and 65,950 additional cases are anticipated in 2022. The estimated incidence of endometrial cancer is 19.5 instances per

100,000 women, while the fatality rate is 2.1 per 100,000 women. It is anticipated that the incidence of endometrial cancer would only increase in the near future **(Banning et al., 2023; Chukkalore et al., 2023).**

About 60% of Egyptian women had an early stage of endometrial cancer with a favorable prognosis, and the disease's frequency has significantly increased. High-grade endometrial cancer, on the other hand, exhibits advanced disease with a dismal prognosis. In developed nations, endometrial cancer ranks as the fifth most common cancer among women **(Ahmed et al., 2025).**

The duration of exposure to estrogen without progesterone balancing is the most important risk factor, but choosing menopausal people is essential for prevention because endometrial hyperplasia and cancer are more common in older women than in younger ones **(Swetha et al., 2024).**

To the best of our knowledge, number of researches **(Abd-Elhameed et al., 2023; Jacobs et al., 2022; Cheewakriangkrai et al., 2020; Karadeniz et al., 2020; Peigné et al., 2020)** concentrate on attitudes and knowledge regarding endometrial cancer. The application of the health beliefs model as a framework for encouraging preventative behaviors and enhancing health-related attitudes about endometrial cancer, however, has received little attention. Given this gap, this study used the health beliefs model to examine how an endometrial cancer prevention program affected menopausal women's health behaviors.

Aim of research:

The study aimed to investigate the effect of an endometrial cancer preventive program on menopausal women's health behaviors utilizing health beliefs model.

Research Hypotheses:

H1: Menopausal women who received endometrial cancer preventive program utilizing health beliefs model would exhibit improved knowledge than those who didn't receive it.

H2: Menopausal women who received endometrial cancer preventive program utilizing health beliefs model would exhibit positive health beliefs than those who didn't receive it.

H3: Menopausal women who received endometrial cancer preventive program utilizing health beliefs model would exhibit higher engagement in healthy behaviors than those who didn't receive it.

Subjects and Method:

Research design:

This research employed a quasi-experimental (non-equivalent groups) research design. By administering an intervention to a study group while keeping a comparison to a control group, but without randomly assigning participants, a quasi-experimental design seeks to examine causal links between variables. This strategy, which relies on methodical techniques to manage confounding variables and reduce bias, is used when randomization is impracticable or unethical **(Chu, 2024).**

Research setting:

This investigation was carried out at the Benha University Hospital's administrative building.

Sampling:

Sampling:

Sample type: A purposive sample was used to fulfill the aim of the study.

Sample size: A number of 74 menopausal women were recruited in the current study. The sample size was computed using the formula **Yamane (1967)**. Wherever: n=sample size, N=population size (90) according to

Personnel Affairs at Benha University Hospital in the year of 2023. e=Margin of errors which is = 0.05

$$n= \frac{N}{1+N(e)^2}$$

Sample was selected according to the following inclusion criteria: amenorrhea for more than one year at least, age 45-60 years old, no history of endometrial cancer and willing to participate in the study.

Tools of data collection:

Three tools were used in this study:

Tool I: A structured interviewing questionnaire This questionnaire was designed by researchers after reviewing related literatures (**Abd Elrafea et al., 2023; Li et al., 2023; El-Kurdy et al., 2021)**, it was written in Arabic language in the form of close ended questions and contained the following five parts:

Part 1: Personal characteristics of the studied menopausal women; it included (age, level of education, marital status and place of residence) as well as anthropometric measures such as weight, height and body mass index.

Part2: Menstrual and contraception history; it included (age of menarche, age of menopause, gravidity, parity, previous use of contraceptive method, period of using method of contraception and experiencing any symptoms while using contraceptives).

Part3: Medical history; it included (suffering from any chronic disease, and suffering from any type of cancer).

Part 4: Family history; it included (having relatives suffering from endometrial cancer and the degree of kinships).

Part 5: Assessment of menopausal women's knowledge about endometrial cancer; it was designed to assess menopausal women's knowledge about endometrial cancer, it included 8 items (meaning of endometrial cancer, risk factors, symptoms, diagnosis, complications, prevention and treatment).

Scoring system:

Each knowledge item was given a score (2) when the answer was correct, a score (1) when the answer was incorrect or don't know. The total score of knowledge was calculated by summation of the scores of all items which ranged from 8 to 16. The level of total knowledge score was classified as the following:

Good knowledge: ≥ 75% of total score (12 ≤ 16)

Average knowledge: 50 - < 75% of total score (8 < 12)

Poor knowledge: < 50% of total score (1< 8)

Tool II: Health beliefs model scale (HBM):

Kloeblen and Batish (1999) devolved the health beliefs model scale. The researchers modified and translated HBM into Arabic in order to assess menopausal women's health beliefs about preventing endometrial cancer. Perceived susceptibility (5 questions), perceived severity (8 items), perceived advantages (6 items), perceived barriers (7 items), perceived self-efficacy (5 items), and perceived cues to action (5 items) are the six subscales that make up its 36 items.

Scoring system:

A three-point Likert scale, with 3 representing agreement, 2 representing uncertainty, and 1 representing disagreement, was used to score each item. The total score of the health beliefs model, which ranged from 36 to 108, was determined by adding up all of the subscales. Positive, healthy beliefs were indicated by higher scores on each of the five subscales. However, greater ratings on the perceived barriers subscale indicated more unfavorable health perceptions. The HBM's overall score level:

- Positive health beliefs: ≥ 75% of the total score (81–108).

-Negative health beliefs: less than 75% of the total score (1 < 81).

Tool III: Health Promotion Lifestyle Profile-II (HPLP II): Walker et al. developed it (1987). The researchers translated HPLP II into Arabic and modified it to evaluate menopausal women's health-related endometrial cancer prevention practices. Health responsibility (8 items), physical activity (6 items), nutrition (9 items), spiritual growth (8 items), interpersonal interactions (8 items), and stress management (8 items) were the six subscales that made up the 47 items.

Scoring system

A three-point Likert scale, with 3 representing frequently, 2 representing occasionally, and 1 representing never, was used to rate each item. A higher score indicated greater engagement in healthy behaviors related the prevention of endometrial cancer. The overall HPLP II was evaluated by adding up all of the subscales. The overall score fell between 47 to 141 and was divided into :

High participation in healthy behaviors: > 75% of the overall score (106-141).

Moderate participation in healthy behaviors: 50–75% of the overall score (71-106).

Low participation in healthy behaviors: < 50% of the overall score (1 < 71).

Tools validity and Reliability:

Three jury members with expertise in obstetrics and gynecology nursing from Benha University evaluated the tools for content validity. The necessary changes, such as rewording and replacing several sentences pertaining to information about endometrial cancer, such as "complications of endometrial cancer," were made in response to the experts' concerns. The moderate to high reliability of the Cronbach's alpha coefficient test, which was used to evaluate the dependability, suggested that the tools were made up of rather uniform things. The knowledge's internal consistency was α = 0.75, whereas the HBM scale's internal consistency was 0.76. and reliability for six subscales varied from 0.73 to 0.94, while the HELPII scale's internal consistency was 0.91 and reliability for six subscales ranged from 0.79 to 0.87. A value of 0.70 or higher is deemed good.

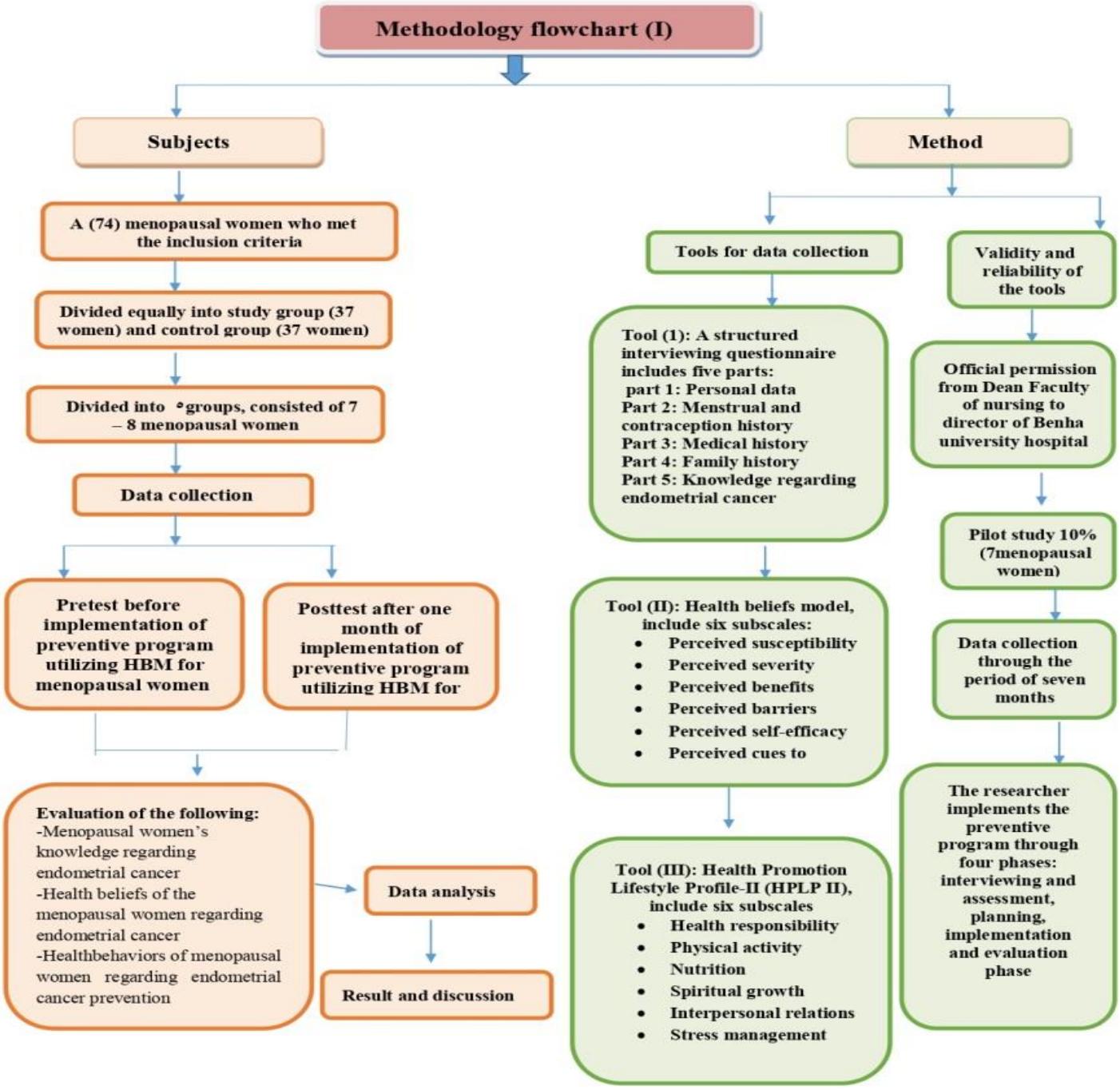
Ethical considerations:

Ethical aspects were considered before starting the study as the following: The study was approved by the Scientific Research Ethics Committee at Benha University's Faculty of Nursing (Code: REC – OBSN P93); the study's purpose was explained to each woman before it was applied to gain confidence and trust; the researcher obtained oral consent from the women to participate in the study; the data was collected and treated confidentially; each woman was free to withdraw at any time during data collection without obligation; and the control group received an educational booklet at the end of the study to help them throughout their lives.

Pilot study:

In order to evaluate the instruments' clarity, objectivity, feasibility, relevance, and applicability as well as to identify potential roadblocks and issues that could impede data collection, the pilot study was carried out on seven menopausal women, or 10% of the entire sample. Estimating the amount of time required for data gathering was also helpful. Women from the pilot research were included in the full study sample because no changes were made.

Field work:


Methodology flowchart (I)
Subjects
Method
A (74) menopausal women who met the inclusion criteria
Divided equally into study group (37 women) and control group (37 women)
Divided into groups, consisted of 7 – 8 menopausal women
Data collection
Pretest before implementation of preventive program utilizing HBM for menopausal women
Posttest after one month of implementation of preventive program utilizing HBM for
Evaluation of the following:
-Menopausal women's knowledge regarding endometrial cancer
-Health beliefs of the menopausal women regarding endometrial cancer
-Healthbehaviors of menopausal women regarding endometrial cancer prevention
Data analysis
Result and discussion
Tools for data collection
Tool (1): A structured interviewing questionnaire includes five parts:
part 1: Personal data
Part 2: Menstrual and contraception history
Part 3: Medical history
Part 4: Family history
Part 5: Knowledge regarding endometrial cancer
Tool (II): Health beliefs model, include six subscales:
Perceived susceptibility
Perceived severity
Perceived benefits
Perceived barriers
Perceived self-efficacy
Perceived cues to
Tool (III): Health Promotion Lifestyle Profile-II (HPLP II), include six subscales
Health responsibility
Physical activity
Nutrition
Spiritual growth
Interpersonal relations
Stress management
Validity and reliability of the tools
Official permission from Dean Faculty of nursing to director of Benha university hospital
Pilot study 10% (7menopausal women)
Data collection through the period of seven months
The researcher implements the preventive program through four phases: interviewing and assessment, planning, implementation and evaluation phase

The data collection process took place during a seven-month period, from the start of May to the end of November 2024. The following sequential phases were used to conduct this study:

Interviewing and Assessment phase:

In order to gather baseline data, this phase involved interviewing women. At the start of the interview, the researchers introduced themselves, greeted each lady, described the purpose of the study, and set up the dates and frequency of sessions for the chosen women in order to ensure adherence to the chosen interventions. Women gave their oral agreement to be included in the study. To calculate body mass index, the researcher measured each woman's height and weight.

A structured interviewing questionnaire (tool I) was given out by the researchers to evaluate menopausal women's awareness of endometrial cancer as well as their personal information, menstrual history, medical and family history, and history of contraception. The questionnaire took an average of ten to fifteen minutes to complete.

The health beliefs model scale (tool II) was then given out by the researchers to assess menopausal women's health beliefs about preventing endometrial cancer. The scale took an average of 15 to 20 minutes to complete.

In order to evaluate menopausal women's health habits connected to endometrial cancer prevention, the researchers lastly gave out the health promotion lifestyle profile-II (tool III). The questionnaire took an average of twenty to twenty-five minutes to complete.

Depending on the women's answers, it took an average of 45 to 60 minutes to complete the surveys .

Two days a week, from 9 to 2 pm, the interviewing procedure took place. Individual interviews were conducted with each woman. Four to five women were interviewed each week.

The gathered pretest results served as a starting point for additional comparisons to assess how the health beliefs model-based preventative program affected menopausal women's knowledge, attitudes, and actions.

Planning Phase:

Based on the findings of the pretest evaluation of women's health views, actions, and knowledge about preventing endometrial cancer. Menopause and endometrial cancer (meaning, causes, risk factors, signs and symptoms, diagnosis, treatment, complications, effect on quality of life and prevention) as well as preventive health behaviors for endometrial cancer were covered in the booklet the researchers created using the health beliefs model in simple Arabic. Several illustrated pictures were used to supplement this booklet. Additionally, the number of sessions and substance of the program for endometrial cancer prevention were decided.

Implementation phase:

The group that did not get the endometrial cancer prevention program is known as the control group. There was no education strategy. Otherwise, the researchers responded to questions from menopausal women regarding the educational subjects as needed.

For the study group, the preventive program was put into place at the previously indicated location by the researchers. Five groups of seven to eight menopausal women each were created. The preventive program lasted two weeks for each group. It was broken up into five sessions, each lasting 45 to 60 minutes and including discussion periods based on the accomplishments and feedback of the ladies.

At the conclusion of each session, each subgroup was notified of the next session's time. In order to accommodate women's comprehension levels, the next session began with feedback regarding the previous session and its goals in plain Arabic. A variety of instructional strategies (group discussion, role-playing, demonstration, and re-demonstration) and resources (power point presentation, video film about stress management strategies and exercise during menopause, and a created booklet) were employed. Women's queries were addressed at the conclusion of each session to clear up any misunderstandings and misconceptions.

Women were introduced to the program's contents at the first session, after which the researchers defined menopause and discussed its symptoms. then asked women for their opinions on preventing endometrial cancer. After discussing menopausal women's perceptions of their sensitivity and vulnerability to endometrial cancer (perceived susceptibility), the researchers provided detailed information about endometrial cancer, including its definition, risk factors, symptoms, diagnosis, complications, prevention, and treatment, in order to gain a thorough understanding of the disease's seriousness and detrimental effects (perceived severity). Women received an informational brochure following the first session.

In the second session, the importance and necessity of adhering to the applicability of preventive activities (perceived benefits) were emphasized by defining and illustrating preventive behaviors like eating a balanced diet and changing harmful eating habits. Additionally, adhering to a scheduled workout regimen throughout menopause.

The significance of social support, spending time with close friends, and resolving disputes with others via dialogue and compromise were the main topics of the third session. Additionally, stress management techniques to reduce and manage stress were given, along with instruction in calming techniques like deep, slow breathing exercises.

Women recognized the difficulties and barriers to adopting preventative practices during the fourth session. After that, the researchers led a group discussion to offer solutions for these problems (perceived barriers).

The fifth session's main goal was to give women confidence in their ability to prevent endometrial cancer by implementing good preventative practices. Furthermore, menopausal women's willingness to adopt healthy practices that prevent endometrial cancer when they have the right attitudes (perceived self-efficacy). One of the cues to action was an internal stimulus, such as fear of developing endometrial cancer; the others were external stimuli, such as media, family, and educational pamphlets.

Evaluation phase:

Following a month of program implementation, the researchers administered the same set of instruments to both groups: tool I part 5 to gauge menopausal women's knowledge of endometrial cancer, tool II health beliefs model scale to gauge menopausal women's beliefs about endometrial cancer prevention, and tool III health promotion lifestyle Profile-II to gauge menopausal women's endometrial cancer prevention-related health behaviors.

Statistical analysis:

Before being entered into a computer, the data was checked. For that, data tabulation and analysis were done using the Statistical Package for Social Sciences (SPSS version 26.0). We used descriptive statistics, such as mean, standard deviation (SD), frequency, and percentages. Fisher Exact Test (FET), independent t-test, and Chi-square test (x2) are examples of inferential statistics used as

significance tests. Quantitative data were tested for correlation using Pearson correlation coefficients (r).

When $p < 0.05$, no statistically significant difference was taken into account.

When $p \leq 0.05$, a difference was deemed statistically significant.

When $p < 0.001$, a difference was deemed extremely statistically significant.

Results:

Table (1) clarifies that 48.6% and 51.3% of the study and control groups were in age group 50 - < 55 years with a mean age of 50.05 ± 3.18 years and 50.38 ± 2.96 years respectively. In terms of educational level, secondary education was attained by 70.3% of the study group and 78.4% of the control group. In terms of marital status, 86.5% of the control group and 81.1% of the research group were married. Additionally, 67.6% of the control group and 59.5% of the study group were urban dwellers. Regarding personal characteristics, there was no statistically significant difference between the two groups ($p > 0.05$).

Figure (1) demonstrates that 85.4% and 82.2% of the study and control groups, respectively, had low levels of knowledge prior to the implementation of a preventive program using the health beliefs model, whereas 77.1% and 6.2% of the study and control groups, respectively, had good levels of knowledge following the implementation of the program.

Table (2) explains that there was no statistically significant difference between the study and control groups' total health beliefs ratings prior to program implementation (63.04 ± 5.43 and 61.46 ± 6.56; $p > 0.05$). However, following program implementation, the study group's mean score of perceived barriers was significantly lower than that of the control group, while the mean scores of the overall health beliefs model and subscales, including perceived susceptibility, perceived severity, perceived benefits, perceived self-efficacy, and cues to action, were significantly increased ($P \leq 0.001$). The study group's mean score on the total health beliefs model was 85.24 ± 6.24, while the control group's was 63.38 ± 6.90 ($p < 0.001$).

Table (3) explains that prior to the program's implementation, there was no statistically significant difference between the study and control groups on any of the health behaviors subscales (68.97 ± 8.63 in the study group compared to 67.78 ± 10.45 in the control group; $p > 0.05$). However, following the implementation of the program, the study group's mean scores on all health behaviors subscales—including health responsibility, physical activity, nutrition, spiritual development, interpersonal relationships, and stress management—were statistically significantly higher than those of the control group. The study group's mean score for overall health behaviors was 116.29 ± 7.49, while the control group's score was 69.61 ± 10.69 ($p < 0.001$).

Table (4) demonstrates that, before and after program implementation, there was a very statistically significant positive association ($p \leq 0.001$) between the overall knowledge, health attitudes, and health behaviors scores of the investigated menopausal women in both groups for endometrial cancer prevention.

Table (5) demonstrates that, both before and after program implementation, there was a very statistically significant positive association ($p \leq 0.001$) between the total health beliefs and health behaviors scores of the examined menopausal women in both groups regarding endometrial cancer prevention.

Table (1): Distribution of the studied menopausal women in both groups according to personal data (n=74).

Variables \ Groups	Study group n=37		Control group n=37		FET/X^2	P- value
	No.	%	No.	%		
Age (years)						
45 - < 50	17	46.0	17	46.0	8.786£	0.553 ns
50 - < 55	18	48.6	19	51.3		
55 - ≤ 60	2	5.4	1	2.7		
Mean ± SD	**50.05 ± 3.18**		**50.38 ± 2.96**		**t=0.454**	**0.650 ns**
Level of education						
Primary education	8	21.6	3	8.1	3.542£	0.189 ns
Secondary education	26	70.3	29	78.4		
University education	3	8.1	5	13.5		
Marital status						
Married	30	81.1	32	86.5	1.442£	0.603 ns
Divorced	6	16.2	3	8.1		
Widowed	1	2.7	2	5.4		
Place of residence						
Rural	15	40.5	12	32.4	.525٠	0.469 ns
Urban	22	59.5	25	67.6		

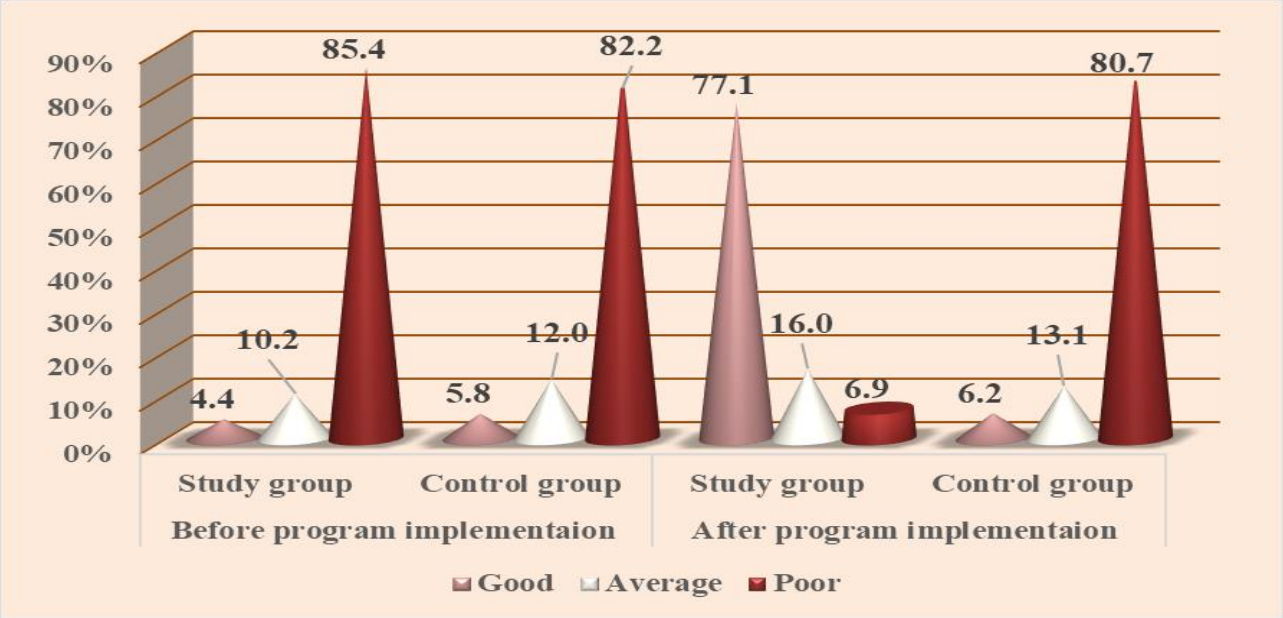


Figure (1): Percentage distribution of the studied menopausal women in both groups according to level of total knowledge about endometrial cancer before and after program implementation (n=74).

Table (2): Comparison of mean subtotal and total scores of health beliefs among the studied menopausal women in both groups regarding endometrial cancer prevention before and after program implementation (n=74).

Health beliefs model subscales	maximum score	Before program implementation			After program implementation		
		Study group n= 37	Control group n= 37	t test P-value	Study group n= 37	Control group n= 37	t test P-value
		Mean ± SD	Mean ± SD		Mean ± SD	Mean ± SD	
Perceived susceptibility	15	7.89 ± 2.12	7.59 ± 1.73	0.743 0.461 ns	12.64 ± 1.54	7.78 ± 1.79	12.470 0.000**
Perceived severity	24	11.78 ± 2.45	11.94 ± 2.17	0.301 0.764 n	20.02 ± 2.88	12.67 ± 2.66	11.388 0.000**
Perceived benefits	18	10.08± 2.71	9.67 ± 2.14	0.713 0.478 ns	15.00 ± 1.92	9.94 ± 2.03	11.898 0.000**
Perceived Barriers	21	17.87 ± 3.18	17.11 ± 2.35	0.827 0.368 ns	13.24 ± 2.35	17.33 ± 2.03	6.639 0.000**
Perceived self-efficacy	15	8.10 ± 2.01	8.05 ± 2.15	0.111 0.912 ns	12.29 ± 1.45	8.37 ± 2.96	15.484 0.000**
Perceived cues to action	15	7.32 ± 1.93	7.10 ± 1.36	0.556 0.580ns	12.05 ± 1.54	7.29 ± 1.89	11.823 0.000**
Total score	18	63.04 ± 5.43	61.46 ± 6.56	0.144 0.152ns	85.24 ± 6.24	63.38 ± 6.90	21.871 0.000**

Table (3) Comparison of mean subtotal and total scores of health behaviors among the studied menopausal women regarding endometrial cancer prevention before and after program implementation (n=74).

Health behaviors subscales	maximum score	Before implementation			After implementation		
		Study group n= 37	Control group n= 37	t test P-value	Study group n= 37	Control group n= 37	t test P-value
		Mean ± SD	Mean ± SD		Mean ± SD	Mean ± SD	
Health Responsibility	24	11.40± 2.20	11.29 ± 2.17	0.463 0.641 ns	19.43 ± 1.86	11.33 ± 2.27	18.146 0.000**
Physical Activity	18	7.89 ± 1.79	8.18 ± 1.74	0.802 0.425 ns	14.81 ± 1.68	8.57 ± 1.96	17.270 0.000**
Nutrition	27	13.89 ± 2.56	13.27 ± 2.79	0.817 0.415 ns	21.89 ± 2.90	13.67 ± 2.86	12.683 0.000**
Spiritual Growth	24	12.54± 2.14	11.67 ± 2.32	1.874 0.064 ns	20.00 ± 2.47	12.02 ± 2.47	17.260 0.000**
Interpersonal Relations	24	12.27 ± 2.50	11.75 ± 2.35	2.441 0.170 ns	20.18 ± 1.85	12.00 ± 2.57	19.049 0.000**
Stress Management	24	10.97 ± 2.26	11.59 ± 2.37	0.708 0.480 ns	19.89 ± 2.00	12.02 ± 2.57	14.503 0.000**
Total score	141	68.97 ± 8.63	67.78 ± 10.45	1.345 0.181 ns	116.29 ± 7.49	69.61 ± 10.69	23.107 0.000**

Table (4): Correlation coefficient between total knowledge, health beliefs and health behaviors scores of the studied menopausal women in both groups regarding endometrial cancer prevention before and after program implementation (n=74).

Variable		Total knowledge score							
		Study group n= 37				Control group n= 37			
		Before program implementation		After program implementation		Before program implementation		After program implementation	
		r	P	r	P	r	P	r	P
Total health beliefs score	Before program implementation	0.562	0.000**	——	———	0.325	0.000**	——	———
	After program implementation	———	———	0.698	0.000**	———	———	0.413	0.000**
Total health behaviors score	Before program implementation	0.654	0.000**	——	———	0.754	0.000**	——	———
	After program implementation	———	———	0.726	0.000**	———	———	0.863	0.000**

Table (5): Correlation coefficient between total health beliefs and health behaviors scores of the studied menopausal women in both groups regarding endometrial cancer prevention before and after program implementation (n=74).

Variable		Total health beliefs score							
		Study group n= 37				Control group n= 37			
		Before program implementation		After program implementation		Before program implementation		After program implementation	
		r	P	r	P	r	P	R	P
Total health behaviors score	Before program implementation	0.814	0.000**	——	——	0.649	0.000**	——	——
	After program implementation	———	———	0.832	0.000**	———	———	0.595	0.000**

Discussion:

The risk of endometrial cancer is markedly elevated with menopause. It is crucial to comprehend the physiological changes that occur during menopause and how these changes are linked to an increased risk of endometrial cancer, especially in women who have recognized risk factors. Adopting healthy habits and using preventive techniques that are informed by the health beliefs model can significantly lower the risk of endometrial cancer **(Szatkowski et al., 2025).**

Using the health beliefs model, the study sought to determine how an endometrial cancer prevention program affected the health behaviors of menopausal women. Regarding the general characteristics of the menopausal women under investigation, the current study determined that there was no statistically significant difference between the groups under investigation with respect to (age, education level, marital status, domicile).

This outcome was consistent with the findings of **John et al. (2022),** who demonstrated that the two groups'

sociodemographic characteristics did not differ significantly.

This outcome was almost identical to that of **Li et al. (2023),** who found no discernible variations between the two groups' demographic traits, including age and educational attainment. Furthermore, according to **Hyvärinen et al. (2022),** there were no appreciable variations in terms of demographic traits.

With a mean age of 50.05 ± 3.18 years and 50.38 ± 2.96 years, respectively, over half of the study and control groups were between the ages of 50 and under 55. The emphasis on this midlife age range is important since it is frequently linked to higher health knowledge and endometrial cancer risk, which may affect menopausal women's openness to educational programs. This outcome was consistent with that of **Abdel Razek (2023),** who discovered that the average age of the group under study was 53.02 ± 3.04 years.

In terms of educational level, it was evident that over 75% of the study group and control groups, respectively, had completed secondary school. This finding was consistent with that of **Ishak et al. (2021),** who discovered that the majority of menopausal women had completed secondary school.

In terms of marital status, the majority of participants in the study and control groups were married. In addition, over two-thirds of the women in both categories lived in cities. These findings were consistent with a study by **Abd Elmoneem et al. (2024),** which revealed that most people were married and resided in cities.

According to the current study's findings, most menopausal women in both the study and control groups had inadequate knowledge of endometrial cancer prior to the introduction of the preventative program. This could be because menopausal women are not well-informed on endometrial cancer early detection techniques.

After the preventative program was put into place, almost three quarters of the study group had a good level of knowledge of endometrial cancer, compared to a minority of the control group. These outcomes might be the consequence of the preventative program's beneficial impact on raising menopausal women's awareness of endometrial cancer. The materials utilized in the training seminars to help women learn about endometrial cancer piqued their attention.

The study's hypothesis (I), according to which "menopausal women who received endometrial cancer preventive program utilizing health beliefs model would exhibit improve knowledge than those who didn't receive it," was validated by these findings.

These findings were consistent with a study conducted by **Abd-Elhameed et al. (2023),** which found that the application of instructional guidelines improved women's understanding of endometrial cancer. **Abd Elrafea et al. (2023)** also corroborated these findings, reporting a highly statistically significant improvement in overall mean knowledge at post-intervention. However, a research by **Ghayth et al. (2023)** indicated that most of the women in the study had poor knowledge levels following intervention, which contradicted these findings.

The results of the current study showed that there was no statistically significant difference in the total health beliefs scores between the study and control groups with regard to the menopausal women's health beliefs for the prevention of endometrial cancer. Additionally, prior to the implementation of the preventive program, the majority of menopausal women in the study and control groups, respectively, held unfavorable health beliefs regarding endometrial cancer prevention. Menopausal

women's lack of consciousness and education may be the cause of this. Furthermore, the uniformity of health beliefs and perceptions seen before to the implementation of the preventive program was probably influenced by the sample's demographic homogeneity as well as the lack of past experience to comparable preventive programs.

However, the study group's mean score of perceived barriers was significantly lower than that of the control group, while the mean scores of the overall health beliefs model and subscales, including perceived susceptibility, perceived severity, perceived benefits, perceived self-efficacy, and cues to action, were significantly higher. Furthermore, following the implementation of the preventive program, nearly 75% of the study group had good health views regarding endometrial cancer prevention, compared to a minority of the control group. These outcomes might be the result of menopausal women's increased awareness of endometrial cancer as a result of the preventative program's successful implementation, which in turn promoted more optimistic health beliefs.

The study's hypothesis (II) that "menopausal women who received endometrial cancer preventive program utilizing health beliefs model would exhibit positive health beliefs than those who didn't receive it" was validated by these findings.

Additionally, these findings were in line with a study conducted by **Eldardery et al. (2022)**, which found that, prior to the intervention, there was no significant difference between the mean scores of the various structures of the health beliefs model in two groups. However, following the intervention, the intervention group's mean scores of all HBM variables significantly increased. Additionally, these findings were consistent with a study conducted by **Rezaei et al. (2024),** which found that while there was no statistically significant difference between the two groups regarding health beliefs model subscales prior to the intervention, there was a significant difference between the two groups regarding all health beliefs model subscales one month following the intervention.

These findings were consistent with a research by **Faghih et al. (2024),** which found that, prior to intervention, there was no statistically significant difference between the groups under investigation in any of the health beliefs model areas. After the intervention, there was a notable improvement between the two groups.

These findings were consistent with a study by **Doll et al. (2020)** that emphasized the significance of bolstering health beliefs since beliefs are essential for enhancing symptom identification and promoting early healthcare-seeking actions.

The current study's findings showed that there was no statistically significant difference between the study and control groups on any of the health behaviors subscales related to endometrial cancer prevention among the menopausal women under investigation. Furthermore, prior to the implementation of the preventive program, the majority of menopausal women in the study and control groups exhibited low engagement in healthy practices regarding endometrial cancer prevention. This outcome could be caused by a lack of understanding, negative and false beliefs, and personal and social culture.

However, following program implementation, the study group's mean scores on all health behavior subscales—health responsibility, physical activity, nutrition, spiritual development, interpersonal relationships, and stress management—were statistically significantly higher than those of the control group. Additionally, almost 75% and a small percentage of menopausal women

in the research and control groups engaged in healthy activities related to the prevention of endometrial cancer.

The preventative program's success in raising women's awareness, motivation, and self-efficacy on adopting healthier behaviors may be the cause of this increase. Unlike the control group, which did not receive a similar intervention, the study group may have been empowered to make good changes due to the structured content, recurrent engagement, and emphasis on practical health recommendations.

The study's hypothesis (III) that "menopausal women who received endometrial cancer preventive program utilizing health beliefs model would exhibit higher engagement in healthy behaviors than those who didn't receive it" was validated by these findings.

These findings were consistent with a study conducted by **Soleimani et al. (2021),** which found that the experimental group's mean life style scores increased significantly during the assessment periods while the control group's scores stayed constant.

These findings were consistent with those of **Elkheshen et al. (2022),** who explained that all items of health promotion lifestyle behaviors before to intervention did not differ statistically significantly between the study and control groups. In the meantime, all health promotion lifestyle behavior items showed a highly statistically significant difference after the intervention.

These findings were almost identical to those of **Bala et al. (2024),** who discovered that the experimental group significantly outperformed the control group in all health promotion lifestyle ratings following the intervention.

These findings were consistent with a study conducted by **Abo Ali and Oka (2021),** which found that the intervention considerably raised the total health-promoting lifestyle profile-II scores.

These findings were in line with a study conducted by **Coemans et al. (2025),** which demonstrated that maintaining a healthy lifestyle is linked to a lower risk of endometrial cancer. The promotion of a healthy lifestyle as a successful tactic for the primary prevention of endometrial cancer was supported by these findings.

These findings conflicted with those of **Mohammadi et al. (2024),** who claimed that neither the experimental nor the control groups' healthy behaviors changed significantly before or after the intervention.

Concerning, the results of the current study demonstrated that there was a highly statistically significant positive correlation between the knowledge, health beliefs, and health behaviors of the studied menopausal women in both groups regarding endometrial cancer prevention before and after program implementation .

Additionally, there was a highly statistically significant positive association between the menopausal women in both groups' overall health attitudes and health behaviors scores addressing the prevention of endometrial cancer before and after the program's adoption.

According to the researcher, women's knowledge and capacity to modify healthy beliefs and adopt healthy behaviors were greatly improved by the execution of the preventive program based on the health beliefs model. Consequently, menopausal women's health behaviors were positively impacted by the health beliefs model.

These findings corroborated those of **Elkheshen et al. (2022),** who reported a statistically significant beneficial association between health promotion and knowledge following intervention.

These findings were consistent with those of **Eldardery et al. (2022),** who showed that among older women, knowledge, health beliefs, and preventative actions were significantly positively correlated.

These findings were consistent with those of **Richard-Davis et al. (2022),** who demonstrated a strong correlation between women's attitudes and actions throughout the menopause transition.

These findings were consistent with those of **Liu et al. (2021),** who discovered a strong and positive relationship between actions and health beliefs as defined by the health belief model among older women with malignant gynecological malignancies.

Conclusion:

Menopausal women's knowledge, health beliefs, and health behaviors about endometrial cancer prevention were improved by the preventive program, which was founded on the health beliefs model. The majority of menopausal women had low understanding, unfavorable health beliefs, and harmful practices related endometrial cancer prevention prior to the program's implementation. However, following the program's implementation, menopausal women's knowledge, health beliefs, and healthy behaviors for the prevention of endometrial cancer improved statistically significantly in the study group compared to the control group. Additionally, both before and after the program's introduction, a highly statistically significant positive link was found between the investigated menopausal women's overall knowledge, health beliefs, and health practices. These results verify that the goal of the study was accomplished and that the suggested research hypotheses were validated.

Recommendations:

- In order to encourage early identification and fair access to preventive services, endometrial cancer prevention methods should be incorporated into current women's health initiatives at the primary health care level.
- Distributing an informational pamphlet on endometrial cancer prevention with a focus on menopausal women in various contexts in order to raise awareness and encourage healthy attitudes and practices.

Recommendations for further studies:

- To generalize the findings, the study should be replicated with a large sample size in a different scenario.
- -Developing a customized risk assessment tool to assist menopausal women in comprehending their unique endometrial cancer risk variables
- Putting in place training initiatives for nurses regarding endometrial cancer prevention.

References:

Abd Elmoneem, H. G. A. E., Khamis, M. A., and Abbas, A. M. (2024). Effect of Lifestyle Modifications on Improving Women' Perimenopausal Symptoms, Assiut Scientific Nursing Journal, 12(46): 108-117.

Abd Elrafea,S. A. K., Abd Allah, E. S., Mohammed, N., and Ahmed, E. (2023). Effect of Educational Program **on** Elderly Women Knowledge regarding Endometrial Cancer receiving Radiotherapy, International Journal of Chemical and Biochemical Sciences, 24(10):824-836.

Abdel Razek, M., Omran, A.H., Salama, A.M., and Hassan, M.M., (2023). Effect of Back Message on Sleep Pattern among Menopausal Women, Journal of Nursing Science Benha University, 4(2):274-286.

Abd-Elhameed, E. E., Abd-Elhakeem, S., Mohammed, E., and Gaafar, H., (2023). Effect of instructional guidelines on knowledge and attitudes of perimenopausal women regarding endometrial cancer, benha journal of applied sciences,8(4):233-242.

Abo Ali, E. A., & Oka, A. A. (2021). Menopausal symptoms and health-promoting lifestyle behaviors among women in Tanta, Egypt: An analytic cross-sectional study, the Egyptian Family Medicine Journal, 5(1): 125-140.

Ahmed. M., Hussein, S., Abdalsalam, M. M., Sameh, H., Waley, A. B., Ebian, H. F., and Sameh, R. (2025). Prognostic implication of CD47 and CTLA-4 expressions in endometrial carcinoma, Human Immunology, 86 (1), 111210.

Aljunaid, M. A., Alruwaili, L. N., Alhajuj, H. Y., Musslem, M. T., and Jamal, H. H. (2024). Knowledge, Awareness, Attitudes and Practices toward Perimenopausal Symptoms among Saudi Females, In Healthcare ,12(6): 677.

Baker-Rand, H., and Kitson, S. J. (2024). Recent advances in endometrial cancer prevention, early diagnosis and treatment, Cancers, 16(5), 1028.

Bala, S., Komarraju, S. L., Dasarathan, S., and Muralidharan, S. (2024). Effect of health-promoting behaviors and menopausal symptoms of urban women of Hyderabad: A randomized controlled trial. Journal of Biological Methods, 11(3), e99010028.

Banning, K., Fucinari, J., Fielder, A., Ruterbusch, J. J., Beebe-Dimmer, J. L., Schwartz, A. G., and Cote, M. L., (2023). Quality of life in endometrial cancer survivors by grade of disease, cancer medicine journal,12(12): 13675-13686.

Bosse, T. (2024). Abstract IA014: Personalized adjuvant treatment in endometrial cancer, Clinical Cancer Research, 30(5): IA014-IA014.

Cheewakriangkrai, C., Kietpeerakool, C., Charoenkwan, K., Pattanittum, P., John, D., Aue-aungkul, A., & Lumbiganon, P. (2020). Health education interventions to promote early presentation and referral for women with symptoms of endometrial cancer, Cochrane Database of Systematic Reviews,13 (3):1-27.

Chu, H. (2024). Research Methods and Design Beyond a Single Discipline: From Principles to Practice, Research design and method selection, Taylor and Francis. 1 st ed,299

Chukkalore, D., Rajavel, A., Asti, D., and Dhar, M., (2023). Genomic determinants in advanced endometrial cancer patients with sustained response to hormonal therapy-case series and review of literature, frontiers in oncology, 13:1-7, doi103389/fonc.2023.1188028.

Coemans, E., van den Brandt, P. A., & Schouten, L. J. (2025). Healthy lifestyle and the risk of endometrial cancer, Cancer Epidemiology, 96, 102798.

Doll, K. M., Hempstead, B., Alson, J., Sage, L., and Lavallee, D. (2020). Assessment of prediagnostic experiences of Black women with endometrial cancer in the United States,JAMA Network Open, 3(5): e204954-e204954.

Eldardery, N. E. S., Ebied, E. S., Mo'awad, E., Safwat, S. M., and Eldien, S. B. (2022). Impact of an endometrial cancer prevention program based on health belief model on elderly women's awareness and quality of life, international journal of health sciences, 6(S4) :2855-2875.

Elkheshen, S. A., Salama, A. M., and Elbanna, H. M. (2022). Effect of Health Promoting Lifestyle Educational Intervention on Knowledge and Quality of Life of Menopausal Women, Tanta Scientific Nursing Journal, 27(4): 168-187.

El-Kurdy, R., Mohammed, H., Ali, A., Fadel, E., and Mohamed, H. (2021). Effect of Program Based on Health Belief Model on Women's Knowledge and Beliefs regarding Cervical Cancer Prevention, Egyptian Journal of Health Care, 12(4): 1700-1712.

Faghih, M., Kaveh, M. H., Nazari, M., Khademi, K., & Hasanzadeh, J. (2024). Effect of health belief model-based training and social support on the physical activity of overweight middle-aged women: a randomized controlled trial. Frontiers in Public Health, 12, 1250152.

Faghih, M., Kaveh, M. H., Nazari, M., Khademi, K., and Hasanzadeh, J. (2024). Effect of health belief model-based training and social support on the physical activity of overweight middle-aged women: a randomized controlled trial. Frontiers in Public Health, 12, 1250152.

Garg, R. (2024). Management of Menopause, physiology of menopause, springer, 1st ed, 1.

Ghayth, E. I., Elshiekh, O. G., Ahmed, S. I., Abd-Elaziz, N. M., and Sabry, F. A. (2023). Knowledge Attitude and Practices of Elderly Women toward Gynaecological Cancer Prevention at Sohag City, Assiut Scientific Nursing Journal, 11(37): 266-277.

Hyvärinen, M., Juppi, H. K., Taskinen, S., Karppinen, J. E., Karvinen, S., Tammelin, T. H., and Laakkonen, E. K. (2022): Metabolic health, menopause, and physical activity—a 4-year follow-up study, International Journal of Obesity, 46(3): 544-554.

Ierullo, S. A. (2025). Endometrial Cancer, Undergraduate Research in Natural and Clinical Science, Technology Journal, 9: 1-6.

Ishak, N. N. M., Jamani, N. A., Arifin, S. R. M., Hadi, A. A., and Abd Aziz, K. H. (2021). Exploring women's perceptions and experiences of menopause among East Coast Malaysian women. Malaysian family physician: the official journal of the Academy of Family Physicians of Malaysia, 16(1):84.

Jacobs, G., Dizon, D., Augustyniak, M., Smith, J., Wallace, M. A., Roman, L., ... & McFadden, P. (2022). Knowledge and skill gaps in the treatment and management of patients with endometrial cancer: A mixed-methods needs assessment in the US (577), Gynecologic Oncology, 15(4):1-19.

John, J. B., Chellaiyan, D. V. G., Gupta, S., and Nithyanandham, R. (2022). How effective the mindfulness-based cognitive behavioral therapy on quality of life in women with menopause, Journal of Mid-life Health, 13(2): 169-174.

Karadeniz, H., and Cetinkaya, F. (2020). Knowledge levels and attitudes of adult individuals about cancer and its risk factors, Nigerian Journal of Clinical Practice, 23(11):1607-1614.

Kloeblen, A. S., and Batish, S. S., (1999). Understanding the intention to permanently follow a high folate diet among a sample of low-income pregnant women according to the health belief model, health education research, 14(3):327-338.

Li, Y., He, H., Wang, J., Chen, Y., Wang, C., Li, X., and Lei, X. (2023). Effect of multidisciplinary health education based on lifestyle medicine on menopausal syndrome and lifestyle behaviors of menopausal women: a clinical controlled study, Frontiers in public health, 11, 1119352.

Liu, C., Chen, X., Huang, M., Xie, Q., Lin, Q., Chen, S., & Shi, D. (2021). Effect of Health Belief Model Education on Increasing Cognition and Self-Care Behaviour among Elderly Women with Malignant Gynaecological Tumours in Fujian, China, Journal of Healthcare Engineering, 2021(1), 1904752.

Lv, T., Zhang, H., Xie, X., Yuan, H., Huang, Y., and Zou, Y. (2025). Perspectives on advanced care planning of adolescent and young adult cancer patients, families, and healthcare providers: A qualitative study based on the health belief model, Asia-Pacific Journal of Oncology Nursing, 12, 100635.

Mohammadi, M., Mohammadnabizadeh, S., Mowlaei, L., Ramezankhani, A., Rakhshan, F., and Soleimanzadeh, M. (2024). The effect of an educational

intervention on healthy lifestyle knowledge and **behaviour** among middle-aged women, Health Education Journal, 83(7): 747-758.

Naito, T. (2024). Uniting for greater impact: The crucial role of oncology nurses in cancer care, Asia-Pacific Journal of Oncology Nursing, 11(2).

Pados, G., Zouzoulas, D., and Tsolakidis, D. (2024). Recent management of endometrial cancer: a narrative review of the literature. Frontiers in Medicine, 10, 1244634.

Peigné, M., Maumy, L., and Koskas, M. (2020). A survey of French gynecologists' knowledge and attitudes toward conservative treatment for fertility preservation in young patients with endometrial cancer. Journal of Gynecology Obstetrics and Human Reproduction, 49(7), 101794.

Rezaei, E., Maqsoud, Z. M., and Moghadam, Z. B. (2024). The Effect of Health Belief Model-Based Training on the Self-Compassion and Self-Efficacy of Premenopausal Women.

Richard-Davis, G., Singer, A., King, D. D., and Mattle, L. (2022). Understanding attitudes, beliefs, and behaviors surrounding menopause transition: results from three surveys. Patient related outcome measures, 13(2022) :273-286.

Soleimani, M. A., Bahrami, N., and Ranjbaran, M. (2021). Effect of health promoting lifestyle education on health promoting behaviors of postmenopausal women: A clinical trial study, Koomesh, 23(2): 192-202.

Swetha, R. N., Rao, M. P., and Penumaka, R., (2024). Evaluation of Endometrial Thickness by Transvaginal Sonography in Postmenopausal Women with Bleeding: A Cross-sectional Study, Journal of Clinical and Diagnostic Research, 18(1).

Szatkowski, W., Pniewska, K., Janeczek, M., Ryś, J., Banaś, T., Muzykiewicz, K., and Blecharz, P. (2025): The Assessment of Sentinel Lymph Node Mapping Methods in Endometrial Cancer. Journal of Clinical Medicine, 14(3): 676**.**

Tabrizi, J. S., Doshmangir, L., Khoshmaram, N., Shakibazadeh, E., Abdolahi, H. M., and Khabiri, R. (2024). Key factors affecting health promoting behaviors among adolescents: a scoping review, BMC Health Services Research, 24 (1):58.

Walker, S. N., Sechrist, K. R., & Pender, N. J., (1987). The health-promoting lifestyle profile: development and psychometric characteristics, nursing research, 36(2):76-81.

Yamane T., (1967). Statistics: An Introductory Analysis, 2nd Ed., New York: Harper and Row.

Zarvekanloo, S., Rahimi, Z., Borzu, Z. A., & Shirzadi, S. (2023). Healthy Lifestyle Behaviors and Menopausal Symptoms in Postmenopausal women: a cross-sectional study, Journal of Education and Community Health, 10(4) :217-224.

تأثير تطبيق برنامج وقائى لسرطان بطانة الرحم على السلوكيات الصحية للسيدات في سن الإياس باستخدام نموذج المعتقدات الصحية

يمني محمد السيد عطا – هند عبد الله السيد عفيفي – جهاد جمال السيد

انقطاع الطمث يرتبط ارتباطًا وثيقًا بزيادة خطر الإصابة بسرطان بطانة الرحم. يمكن تحقيق الوقاية من خلال استخدام نموذج المعتقدات الصحية وتبني السلوكيات الصحية .**الهدف :**هدفت الدراسة إلى معرفة تأثير برنامج وقائي لسرطان بطانة الرحم على السلوكيات الصحية للسيدات في مرحلة انقطاع الطمث باستخدام نموذج المعتقدات الصحية . **تصميم البحث**: تم استخدام تصميم شبه تجريبى. **مكان البحث:** تم تنفيذ هذه الدراسة في المبني الإداري بمستشفي بنها الجامعي. **عينة الدراسة:** عينه هادفة. **أدوات جمع البيانات:** الأداة الاولي استبيان لجمع البيانات تتكون من الخصائص الشخصية للسيدات في سن الاياس والتاريخ المرضى وتاريخ منع الحمل والولادة والتاريخ الطبي والعائلي ومعلومات السيدة تجاه سرطان بطانة الرحم -الأداة الثانية استبيان نموذج المعتقدات الصحية - الأداة الثالثة استبيان تقييم السلوك الصحي. **النتائج:** وُجد تحسّن ذو دلالة إحصائية في جميع عناصر المعرفة والمعتقدات الصحية والسلوكيات المتعلقة بالوقاية من سرطان بطانة الرحم في المجموعة التي خضعت للبرنامج مقارنةً بمجموعة الضابطة بعد تطبيق البرنامج. كما وُجد ارتباط إيجابي قوي جدًا وذو دلالة إحصائية بين إجماليات درجات المعرفة والمعتقدات الصحية والسلوكيات الصحية قبل وبعد تنفيذ البرنامج. **الاستنتاج:** البرنامج الوقائي المبني على نموذج المعتقدات الصحية كان فعّالاً في تحسين معرفة السيدات في مرحلة انقطاع الطمث، ومعتقداتهن الصحية وسلوكياتهن الصحية فيما يتعلق بالوقاية من سرطان بطانة الرحم. **التوصيات:** وأوصت الدراسة إلى دمج استراتيجيات الوقاية من سرطان بطانة الرحم ضمن برامج صحة السيدات القائمة على مستوى الرعاية الصحية الأولية بهدف تعزيز الاكتشاف المبكّر وضمان توفير خدمات وقائية بشكل عادل .