Benha Journal of Applied Sciences (BJAS) **print: ISSN 2356–9751**
Vol. (10) Issue (5) (2025), (61- 72) **online: ISSN 2356–976x**

http://bjas.bu.edu.eg

Medical and Health Science

Effect of Supportive Instructional Guidelines on Quality of Life among Women with Chronic Pelvic Pain

Marwa I.Desoky, Soaad A.Ramadan, Eman M.Abd Elhakam and Ola A.Afifi
Obstetrics and Gynecology Dept., Faculty of Nursing, Benha University
E-mail: marwaelghandor6@gmail.com

Abstract

Background Chronic pelvic pain is one of the most common pain conditions affecting women and can have a significant impact on quality of life and sexual health. The nurses should understand the current evidence and best practices guidance regarding chronic pelvic pain. ***Aim:*** This study aims to evaluate the effect of supportive instructional guidelines on quality of life among women with chronic pelvic pain. ***Study design*****:** A Quasi-experimental design was used. **Setting**: the current study was conducted at the outpatient gynecological clinic at Benha University Hospital**. Sample:** Purposive sample included 75 women diagnosed with chronic pelvic pain. **Tools of data collection:** Four tools were utilized for data collection**:** Self-administered questionnaire, Women's self-care practice questionnaire, visual analogical scale for pain severity, world health organization quality of life - BREF (WHOQOL-BREF) and modified female sexual function index. **Results:** the present study revealed a highly statistically significant difference at self-care practices. In addition, pelvic pain severity was satisfactory improved, which subsequently affect improvement of studied women quality of life. **Conclusion**: after implementation of the instructional guideline there was a marked improvement of self-care practices regarding chronic pelvic pain in women. ***Recommendation:*** Women with chronic pelvic pain should perform regular follow-up visits to evaluate health-related quality of life to detect any health problems early.

Keywords: chronic pelvic pain, instructional guideline, quality of life.

1-Introduction

Perceived pelvic pain is defined as pain that originates in the pelvis and usually lasts longer than six months. It is frequently linked to negative emotional, sexual, behavioral, cognitive, and lower urinary tract symptoms as well as symptoms that may indicate myofascial, bowel, lower urinary tract, or gynecologic dysfunction. The discomfort may be cyclic or noncyclic, or it may be associated with sexual activity (dyspareunia) and menstruation (dysmenorrhea). Similar to other chronic pain syndromes, chronic pelvic pain is influenced and contributed to by a combination of biopsychosocial variables. [1].

Gynecological and extra-gynecological variables are the two categories of etiological factors that cause pain. Endometriosis, pelvic congestion syndrome, uterine fibroids, ovarian tumors, pelvic inflammatory disease, and post-operative or post-inflammatory adhesions are examples of gynecological causes. [2]. The following extra-gynecological factors contribute to chronic pelvic pain: ortho-neuro-muscular (Degenerative changes, neuropathies, prolapse of the nucleus pulposus, nerve incarceration), urological (interstitial cystitis, chronic urinary inflammation, urolithiasis, urethra syndrome), gastrointestinal (irritable bowel syndrome, constipations, inflammatory bowel diseases), psychosomatic (depression, sleep disorders, anxiety, migraine with abdominal symptoms, and history of sexual abuse). [3].

Numerous visceral, neurological, musculoskeletal, and psychological symptoms, including urgency, frequency or retention, dyspareunia, and pelvic or vulvovaginal discomfort or pressure, are linked to chronic pelvic pain. Bloating, nausea, constipation, diarrhea, abdominal or pelvic discomfort, and the absence of hematochezia. [4].

Intermittent pelvic or vaginal pain can worsen with activity or at the end of the day. It can be linked to urgency, frequency, or retention, constipation, or dyspareunia. It can also manifest at trigger points like heavy or irregular menstrual bleeding, sharp cramping, or cyclic pain. According to [5]**.,** signs of central sensitization include various pain locations or syndromes, sleep disturbance, anxiety, sadness, rumination, catastrophizing, hyperalgesia, allodynia, or non-responsiveness to treatment.

Diagnosis of chronic pelvic pain starts with a complete history taking of the pain on set and progression, frequency, distribution, quality and severity of all painful locations. Physical examinations are also crucial. [6]**..** Diagnostic tests should be carried out, including a pregnancy test if the woman is of reproductive age, screenings for vaginal discharge abnormalities and sexually transmitted disease (STIs), urinalysis for urinary symptoms, and an endometrial biopsy for persistent abnormal bleeding. The preferred imaging method for detecting gynecologic pathology in chronic pelvic pain (CPP) is transvaginal pelvic sonography. It is comforting to have a normal pelvic examination and pelvic ultrasound, but moving on to more invasive procedures like laparoscopy or magnetic resonance imaging is not advised. To treat this kind of pain, additional tests including computed tomography, magnetic resonance imaging, colonoscopy, and cystoscopy must take into account pelvic, nonpelvic, visceral,

and somatic structures that can cause or contribute to pain in addition to centrally mediated pain components. [7].

Women's physical and mental health, degree of independence, social connections, and relationship to their surroundings all have a complex impact on quality of life, which is a broad notion. Another widespread problem that impacts many facets of life, including sexual health and the capacity for orgasm, is chronic pain. to optimize the patient's overall functioning and quality of life, with a focus on including the patient in self-management [8].

The supportive instructional guidelines are advice to women with chronic pelvic pain to prevent complications and raise awareness about the chronic pelvic pain and how to cope with the disease to improve the quality of life. They contain simple self-management strategies such as drinking plenty of fluids, eating a healthy diet, taking supplemental as vitamins and minerals, performing exercise or physical activities, avoiding tobacco smoking, performing meditation and relaxation techniques, providing psychological support, and sexual intervention[9].

The management of chronic pelvic pain should be patient-centered and collaborative. A multidisciplinary team may examine and treat the behavioral, psychological, and physical aspects of pain at the same time. Gynecologists, nurses, psychologists, anesthetists with experience in pain management, physiotherapists, gastroenterologists, urologists, orthopedists, and psychiatrists have been proposed as key team members [10].

The CPP team's objectives are focused on enhancing quality of life. As such, they include confirming any disease that can be diagnosed, managing pain, identifying any physical or psychological issues and laying out a plan of care to deal with them, explaining any symptoms and issues encountered, lowering anxiety, and supporting women when a diagnosis is hard to make or a treatment doesn't work. Nurses are essential in both managing the team's work and providing direct care for women. Women can receive education on a variety of topics that can improve their capacity to enjoy satisfying sexual relationships. [11].

Additionally, nurses play a critical role in managing pain. Additionally, nurses can contribute significantly by offering a well-planned health education quality of life program. teaching the women about, mental stress management, nutrition, pain management, and major lifestyle adjustments. Women can improve their function, relationships, and quality of life by combining behavioral therapy from mental health professionals with self-management techniques including mindfulness, meditation, stress reduction, and moderate physical activity [12].

Significance of the research:

Health care providers have a significant difficulty with chronic pelvic pain (CPP) because of its wide range of symptoms, complex history, and poor response to treatment. As a result, CPP is poorly understood and poorly managed. Unfortunately, it negatively impacts millions of people worldwide by affecting a variety of facets of a woman's life, such as her capacity to perform simple daily tasks to the point where it impairs her emotional and sexual functioning [13].

Since there is a dearth of high-quality epidemiological data on chronic pain problems in developing nations, it is anticipated that one-third of all women may experience chronic pain syndrome at some point in their lives. Less developed nations had varying prevalence rates; in South East Asia, rates ranged from 5.2% in India to 43.2% in Thailand. According to the [14]. it was present in 25.4% of women in New Zealand and 24% of women in the United Kingdom. About 10–40% of women who visit a doctor in Egypt have chronic pelvic pain, which is defined as discomfort in the pelvis that lasts longer than six months[15].

Aim of the study:

This study aims to evaluate the effect of Supportive Instructional Guidelines on Quality of Life among Women with Chronic Pelvic Pain.

Research Hypotheses:

H1: Following the adoption of supportive instructional guidelines, women expected to have better knowledge and self-care behaviors than they had previously.

H2: Following the adoption of supportive instructional guidelines, women are expected to have low level in the intensity of their chronic pelvic discomfort compared to previously.

H3: When helpful instructional guidelines are implemented, women's quality of life will expected to be improved.

2-Subjects and method

Research design:

To achieve this goal, a quasi-experimental study (one group, pre-posttest) was employed. A quasi-experimental design is a study design in which participants cannot be randomly assigned to an experimental or control group for practical or ethical reasons. However, like a true experiment, it is used to evaluate the effects of an intervention, to establish a cause-and effect relationship between independent and dependent variables. The intervention could be a training program, a policy change, a medical treatment, etc. In quasi-experimental designs, the assignment of participants is usually based on self-selection or selection by an administrator or researcher [16].

Study setting:

The study was conducted in the Obstetrics and Gynecology Outpatient Clinic of Benha University Hospitals. It is a large hospital in Benha City that serves a large number of patients from the entire Qalubia Governorate as well as other neighboring

governorates. This clinic is located on the ground floor of the outpatient building and is made up of a single room that is divided into areas for examination and diagnosis. The outpatient clinic was open from 9 a.m. to 12 p.m. The clinic provided obstetric and gynecological care to women regardless of their financial situation.

Sampling:

Sample type: A purposive sample

Sample size:(75) women had a medical diagnosis of CPP for nine months after data collection began. The following inclusion and exclusion criteria were used to determine the women's inclusion in the study.

Women who have had intermittent or continuous CPP for longer than six months are eligible to apply. CPP in women due to benign disorders. Devoid of any additional medical or gynecological conditions.

Women who are married.
The ability to read and write.
Active and willing involvement in this research.
One of the exclusion criteria is pregnancy.

Tools of data collection:

Four instruments were employed to gather data:

Instrument I: Self-administered questionnaire (Appendix I): Under the direction of supervisors, the researcher created it after examining relevant literature[17]. and [18].. It was written in plain Arabic. There are three components to it:

Part 1: Women's socio-demographics (four items) including age, place of residence, education, and occupation.

Part 2: Women's obstetrical history: (four items) as, current contraceptive methods, parity, manner of last delivery, and gravidity. (rearrange this items: gravida. Para, mode of last delivery and current contraceptive methods)

Part 3: Women's menstrual history includes (four items): including the length, duration, amount and frequency) of the monthly flow, the volume of blood flow, the frequency of the menstrual cycle, and the regularity of the menstruation.

Part 4 characteristics of pelvic pain (three items): including the location, type, and duration of the discomfort.

Tool II: (Women's Self-Care Practices Questionnaire) (Appendix II):

In order to evaluate women's healthy self-care practices that aid in reducing pelvic pain, the researchers created this tool after reviewing relevant literature [11]. and [19].. It includes four domains: nutritional practices, hygienic practices, physical activity practices, and pain relief practices. A Likert scale with three points—0 for never done, 1 for occasionally done, and 2 for always done—was used to score each item. Women's healthier habits are reflected in their better scores. The following formula was used to determine the overall practices score:

• Satisfactory practices: at least 60% of the overall score for healthy practices.
• Unsatisfactory practices: less than 60% of the overall score for healthy habits.

Tool III: Pain Severity Visual Analogical Scale (VAS) (Appendix III):

This instrument was taken from [20].to measure pain intensity. It is used to track pain over time and assess how well an intervention is working. The women were given instructions on how to use this scale. It is a common instrument for assessing pain intensity, with scores ranging from 0 to10.

0 = No pain.
(1:3) = Mild pain
4:7 = indicates moderate pain.
8:10 = Excruciating pain.

Tool IV: Appendix IV, the World Health Organization Quality of Life-BREF (WHOQOL-BREF):

In order to evaluate how women with CPP perceived their quality of life during the preceding four weeks, the WHOQOL-BREF was translated into Arabic and modified from the [21]. The 26 items were divided into four categories: environment (8 items), social relationships (3 items), psychological (6 items), and physical health (7 items There were also two items on general health and overall quality of life.

Scoring system:

Each WHOQOL-BREF item is given a score on a five-point Likert scale, with 1 denoting the least agreement and 5 denoting the greatest. Each item's mean score was determined. The item scores within each domain were used to determine the domain score. A higher score indicates a higher standard of living. The overall QOL score was categorized as follows:
High: (> 75% right response).
Moderator: (50 ≤ 75 % right response).
Low: (less than 50% right response

Tool validity:

Three jurors with backgrounds in obstetrics and gynecological nursing from Benha University examined the data collection tools to make sure they were valid in terms of thoroughness, correctness, and relevance. Changes were made in response to insightful feedback, including removing a few ambiguous wordings. For instance, rearranging some questions and using diagnostic techniques rather than diagnosis.

Tool reliability:

Cronbach's alpha coefficient test was used to assess reliability, and the results showed that each instrument had moderate to high reliability, indicating that its items were generally homogeneous. Self-care practices had an internal consistency of 0.86, while the four domains' WHOQOL-BREF internal consistency ranged from 0.66 to 0.84.

Ethical consideration:

Prior to beginning the study, the following ethical considerations were taken into account: - The study was approved by the Benha University faculty of nursing's scientific research ethical committee code (81).
The chosen research sites formally granted permission for the study to be conducted. Prior to using the instruments, the researcher gave a brief explanation of the purpose and significance of the study in order to win the trust and confidence of the women.
Women gave their consent to participate in the study, and c The chosen research sites formally granted permission for the study to be conducted. Prior to using the instruments, the researcher gave a brief explanation of the purpose and significance of the study in order to win the trust and confidence of the women.
-Women gave their consent to participate in the study, and confidentiality was guaranteed.
-There were no dangers to the women's physical, social, or mental health during the trial. Confidentiality was guaranteed.
To protect the privacy of the women who participated, all data collection instruments were destroyed following statistical analysis. The women could leave the research at any moment.

Pilot study:

In order to assess the tools' clarity, viability, and application and to gauge the amount of time required for data collection, a pilot study was conducted on 10% of the entire data collection period (4 weeks = 7 women). To prevent sample bias, the pilot sample was removed from the study and adjustments were made in accordance with the pilot study.

Administrative design:

The director of Benha University Hospital received formal written consent to conduct this study from the dean of the nursing faculty. After outlining the goal of the study, another formal letter was taken and delivered to the director of the obstetrics and gynecology clinics to secure their consent to carry it out. Each woman gave her verbal approval to participate.

Sample technique:

Two times a week, from 9:00 a.m. to 12:00 p.m., the researcher visited the data collection location to gather data till the allotted time was up.

Field work:

From the beginning of July 2023 to the end of March 2024, the study was carried out. In order to apply the supportive instructional principles about persistent pelvic pain, the researcher interviews with the women In order to spread the benefit, the handout (booklet) regarding persistent pelvic pain was left in the outpatient clinic at the conclusion of the trial and given to all women. In order to achieve the goal of this study, the following stages were undertaken: planning, implementation, evaluation, interviewing, and assessment.

Preparatory phase:

The first stage of the study is called the preparatory phase, and it was completed by the researcher by reviewing relevant local and worldwide literature regarding the research subject. This assisted the researcher in understanding the scope and gravity of the issue and directed the preparation of the necessary data gathering instruments. Three obstetrics and gynecological nursing specialists from Benha University's faculty were given the instruments; Its appropriateness, comprehensiveness, clarity, significance, and applicability were to be tested. The jury's verdict was rendered.

Assessment phase:

The researcher welcomed the women, introduced herself to each participant, gave them all the information they needed to know about the study, and explained its goal. The researcher used the following instruments to gather data: Tool I: Self-administered questionnaire with four sections: demographic information, menstrual and obstetric history, and pelvic pain features; Tool II: Visual Analogical Scale (VAS) for pain severity; and Tool III: Women's Self-Care Practices Questionnaire. Tool IV: World Health Organization Quality of Life-BREF (WHOQOL-BREF); The questionnaire took an average of 20 to 40 minutes to complete. The number of women who were studied per day varied between one and two. This phase yielded the data that served as the baseline for assessing the impact of supporting instructional guidelines. All of the women who were the subject of the study underwent this process again until the nine-month period allotted for data gathering was finished

Planning phase:

The researcher created supportive instructions guidelines for persistent pelvic pain in the form of a printed booklet based on the findings from the evaluation phase. To accommodate their level of comprehension and to meet the self-care habits of the women under study, the booklet was created especially for women with chronic pelvic discomfort and was written in plain Arabic. The number of sessions, their substance, various teaching methods and educational media were identified. After completing supportive instructional guidelines, the objectives were designed to be achieved. The overall goal was for each woman to be able to self-care for chronic pelvic pain by the completion of the supportive instructional guideline's sessions, which would have a favorable impact on her pain and quality of life.

Implementation phase:

In order to improve their quality of life and alleviate their persistent pelvic discomfort, the researcher created helpful instructional guidelines\ Three planned sessions were used to carry out this intervention.
It was conducted in the waiting area of the outpatient clinic at Benha University Hospital immediately following the conclusion of the assessment phase.

Each session was between thirty and forty-five minutes long, depending on their development and feedback. At the beginning of the first session, women received a briefing on the intervention's contents. The next session started with feedback on the prior session and the current one's objectives to account for women's varying comprehension levels. They used simple Arabic. Five minutes were set aside at the conclusion of each session to allow ladies to ask questions in order to clear up any confusion and clarify the session's contents. The next session time was communicated to each woman. Lectures, group discussions, critical thinking, problem solving, and brainstorming were among the several educational techniques that were employed. To accomplish its goals, educational materials, including the booklet, were given to all women who were recruited for the study starting with the first session. Additionally, the researcher employed supportive resources that serve as stimulus control to encourage the desired changes, such as flyers and stickers that highlight the impact of supportive instructional guidelines on women's practices and reinforce the intervention's themes. In the second session, each session's specific subject was discussed.

*The first session covered the definition of CPP, symptoms, causes, risk factors, diagnosis, complications, and treatment. *The second session covered self-care and prevention strategies, as well as how these affect women's lifestyle choices related to chronic pelvic pain, including physical activity, dietary habits, hygiene, and pain management techniques.

*The impact of persistent pelvic pain on quality of life was discussed in the third session.

Evaluation phase:

The same format of tools used during the assessment phase was used to evaluate the effectiveness of the supportive instructional guidelines after they were put into practice. The researcher assessed women's self-care practices, level of pain, and quality of life (QOL) four weeks after the last session and during outpatient follow-up, or over the phone if it was late.

Statistical Design:

Data analysis was performed using IBM SPSS statistical software version 22. The data were explored. Descriptive statistics was used for continuous variables [mean and standard deviation (SD)] and frequency for categorical variables. Qualitative variables were compared using qui square test (X^2) as the test of significance, paired (t) test was used to compare mean score between pre and post intervention for the same group respectively. Correlation coefficient (r) Pearson was used to evaluate association between studied variables. A significant level value was considered when p-value ≤ 0.05.

3-Results

Table (1): cleared that less than two-thirds (62.7%) of studied women were in age group ≥ 30 years with a mean age of 29.96±5.61 years. As regards the residence, less than three-quarters (70.7%) of them lived in rural areas. In relation to the educational level, less than half (46.7%) of them had secondary education. Furthermore, more than two-thirds of them (68.0%) were housewives.

Table (2): revealed that, more than half of them (52.0%) and (50.7%) were multigravida and multipara respectively. Also, mode of last delivery of more than two-thirds (69.5%) of them were cesarean section. Also, less than two-fifths (42.7%) of them are using intrauterine contraceptive device.

Table (3): clears that, the duration of menstrual flow for more than two-thirds (69.3%) of women was >7 days. The amount of blood flow for more than half (58.7%) of them was excessive and the frequency of the menstrual cycle for more than two-fifths (44.0%) of them was < 21 days. Additionally, less than two-thirds (62.7) of women had irregular menses.

Table (4): indicates that, more than half (56.0%) of the studied women had a bilateral chronic pelvic pain. Pertaining to nature of pain, less than two-thirds (61.3%) of them had deep pain. Moreover, more than half of them (52.0%) had continues pelvic pain.

Table (5): demonstrates that, there was a highly statistical significant difference between total mean score of women's chronic pelvic pain at pre-intervention and post-intervention phases ($P \leq 0.001$), where; the total mean pain score decreased from 5.59±2.03 at pre-intervention to 4.15±2.26 at post-intervention.

Table (6): elaborates that, after implementation of the supportive instructional guidelines, the total mean score of self-care practices of the studied women was higher than before implementation with a highly statistically significant difference between pre- intervention and post-intervention phases ($p<0.001$). Such significant differences also existed in all domains of self-care practices, including hygienic practices, nutritional practices, physical activity practices and pain relieve practices ($p \leq 0.001$).

Table (7): elaborates that, after implementation of the supportive instructional guidelines, the total mean score of quality of life of the studied women was higher than before implementation with a highly statistically significant difference between pre- intervention and post-intervention phases ($p<0.001$). Such significant differences also existed in all domains of quality of life, including physical health, psychological, social relationships, and environment, as well as two items concerning the overall quality of life and general health ($p \leq 0.001$).

Table (8): clarifies that; there was a highly statistical significant positive correlation between total self-care practices and (total quality of life) regarding chronic pelvic pain at pre-intervention and post-intervention phase ($P \leq 0.001$).

Table (1) Distribution of the studied women according to their socio-demographics data (n=75).

Socio Demographic data	No	%
Age:		
< 30	28	37.3
≥ 30	47	62.7
Mean ± SD = 29.96±5.61		
Residence:		
Rural	53	70.7
Urban	22	29.3
Level of education:		
Primary education	14	18.6
Secondary education	35	46.7
University education	26	34.7
Occupation:		
Housewife	51	68.0
Employed	24	32.0

Table (2): Distribution of the studied women according to obstetric history (n=75)

ıstetric history	**No**	**%**
avidity:		
lligravida	13	17.3
imigravida	23	30.7
ıltigravida	39	52.0
rity:		
llipara	16	21.3
imipara	21	28.0
ıltipara	38	50.7
ɔde of last delivery (n=59):		
ginal delivery	18	30.5
sarean section	41	69.5
ɪrrent contraceptive methods:		
ne	15	20.0
rauterine device	32	42.7
emical	1	1.3
rmonal	24	32.0
tural	3	4.0

Table (3): Distribution of the studied women according to their menstrual history (n=75)

Menstrual history	No	%
Duration of menstrual flow:		
< 3 days	12	16.0
3–7 days	11	14.7
>7 days	52	69.3
Amount of blood flow:		
Normal	31	41.3
Excessive	44	58.7
Frequency of menstrual cycle:		
< 21 days	33	44.0
21–35 days	28	37.3
>35 days	14	18.7
Regularity of menses:		
Regular	28	37.3
Irregular	47	62.7

Table (4): Distribution of the studied women according to characteristics of chronic pelvic pain (n=75)

Pain pelvic characteristics	No	%
Site of pain:		
Unilateral	33	44.0
Bilateral	42	56.0
Nature of pain:		
Superficial	6	8.0
Deep	46	61.3
Both	23	30.7
Continuity of pain:		
Continuous	39	52.0
Interrupted	36	48.0

Table (5): Distribution of the studied women according to severity of chronic pelvic pain at pre- intervention and post-intervention phases (n=75).

Severity of pain	Pre-intervention		Post-intervention		X^2	P-value
	No	%	No	%		
Mild pain	9	12.0	37	49.3	**24.74**	**0.000****
Moderate pain	51	68.0	28	37.4		
Severe pain	15	20.0	10	13.3		
Mean ±SD	**5.59±2.03**		**4.15±2.26**		Paired t= 7.43 **P-value** = 0.000**	

** Highly statistical significant difference ($P \leq 0.001$)

Table (6) Total mean cores of studied women's self-care practices regarding chronic pelvic pain at pre-intervention and post-intervention phases (n=75).

Self-care practices domains	No. of items	Maximum score	Pre-intervention	4 weeks post-intervention	Paired t-test	P-value
			Mean ± SD	Mean ± SD		
Hygienic practices	7	14	10.64±2.03	12.52±1.27	13.00	0.000**
Nutritional practices	7	14	8.08±2.73	10.16±2.27	18.32	0.000**
Physical activity practices	5	10	4.36±1.86	6.28±2.34	12.76	0.000**
Pain relieve practices	4	8	2.48±1.66	5.12±1.93	22.37	0.000**
Total score	**23**	**46**	**25.56±4.18**	**34.08±3.47**	**32.11**	**0.000****

Table (7) Total mean cores of quality of life domains of studied women at pre- intervention and post-intervention phases (n=75).

Quality of life domains	Min./Max. score	Pre-intervention	4 weeks post-intervention	Paired t-test	P-value
		Mean ± SD	Mean ± SD		
Overall quality of life and general health	2/10	5.17±1.53	7.41±1.37	45.10	0.000**
Physical health	7/35	15.61±3.66	24.40±4.75	115.89	0.000**
Psychological health	6/30	14.26±1.94	20.06±3.94	84.40	0.000**
Social relationships	3/15	8.18±1.90	10.41±1.53	39.89	0.000**
Environmental health	8/40	17.78±2.99	25.82±3.91	144.76	0.000**
Total score	**26/130**	**61.02±5.13**	**88.12±9.88**	**287.65**	**0.000****

Table (8): Correlation between total self-care practices and total quality of life scores of the studied women regarding chronic pelvic pain at pre- intervention and post-intervention phases (n=75).

Variables	Total self-care practices			
	Pre-intervention		4 weeks post-intervention	
	r	P-value	r	P-value
Total quality of life	0.524	0.000**	0.694	0.000**

*A Statistical significant $p \leq 0.05$ **A Highly Statistical significant $p \leq 0.001$

4-Discussion

Pelvic organs and tissues are the source of chronic pelvic discomfort, which usually lasts longer than six months. CPP can have detrimental cognitive, behavioral, sexual, and emotional effects and is linked to symptoms that may indicate lower urinary tract, sexual, intestinal, myofascial, or gynecologic problems. Treatment for CPP might be difficult due to its complexity and multifaceted nature. It can affect every part of a woman's life and bring her much misery. It's critical to use multidisciplinary management for CPP testing and treatment. [1].

Similar to other chronic pain syndromes, chronic pelvic pain is influenced and contributed to by a combination of biopsychosocial variables. Clinicians must take into account pelvic and nonpelvic visceral and somatic structures that might produce or contribute to pain, as well as centrally mediated pain components, in order to manage this kind of pain. Important components of the evaluation process for these women include their participation, joint decision-making, functional goal-setting, and a discussion of long-term care expectations. [22].

The aim of the current study to evaluate the effect of supportive instructional guidelines on quality of life among women with chronic pelvic pain. The results of this study confirmed the hypothesis that self-care instructional guidelines enhanced the self-care practices of the women under study, which in turn helped to improve their quality of life and lessen the intensity of their pelvic discomfort.

Regarding the socio-demographics information of the women under investigation, the results of this study showed that, with a mean age of 29.96±5.61 years, less than two-thirds of the women under study were in the age group ≥ 30. This result was consistent with the findings of [23]. who examined the "Application of Continuous Care Model on Pain Coping Strategies and Sexual Quality of Life among Women with Endometriosis related Chronic Pelvic Pain" and found that, with a mean age of 31.32±5.58 years, the proportion of CPP was significantly higher among women aged 30 to 40. women without jobs and those with a moderate level of education.

The findings may be similar because women over 30 years old had a very high incidence of CPP. The association between age and CPP risk may potentially be the cause of this. This finding, however, was in contrast to that of [24]**.,** who investigated the "prevalence of endometriosis during abdominal or laparoscopic hysterectomy for chronic pelvic pain" and discovered that over half of the women in the study were between the ages of 20 and 25.

Less than three-quarters of the women in this study lived in rural regions, less than half of them had a secondary education, and more than two-thirds were housewives, according to data on their occupation, residence, and educational attainment. According to the researcher's perspective, more than two-thirds of them were housewives because Benha University Hospital serves as the primary healthcare facility for the nearby hamlet and there aren't enough good career options.

This result was consistent with the findings of [25]. who investigated "Chronic pelvic pain, Quality of Life and Sexual Health of women treated with Palmitoyl ethanolamine and Lipoic Acid." The study found that the majority of the women were housewives, and over half of the women had only completed secondary education.

[26].conducted "a cross sectional study to assess characteristics of women with chronic pelvic pain" and found that more than half of the women had higher education, the majority were employed, and less than half lived in rural areas. These findings contradict this conclusion.

Concerning the obstetric history of the women under study, an obstetric history entails inquiring about the women's gynecological condition and past and present pregnancies. According to the current study's findings, over half of them were multipara and multigravida, respectively. Furthermore, over two-thirds of them were delivered via cesarean section. A smaller percentage of them—more than two-fifths—use intrauterine contraceptives. This might be the result of more pregnancies and deliveries. This outcome was comparable **.** [27].

Researchers who looked at "Symptoms, quality of life, and factors affecting women's treatment decisions regarding pelvic organ prolapse" discovered that most of them had several paragraphs and many gravidas. The current study's findings are consistent with those of [28]. who investigated the "Effect of Instructional Guidelines on Knowledge and Self-care Practices of Pregnant Women with Urinary Tract Infections" and discovered that most of the women used intrauterine contraceptives.

Regarding to menstrual history of the investigated women: usual menstrual patterns, including average age at menarche, predicted cycle duration and days of bleeding, and expected monthly blood loss. According to the current study's findings, over two-thirds of women experienced menstrual flow for more than seven days. More over half of them had high blood flow in relation to this. For over two-fifths of them, the menstrual cycle's frequency was less than 21 days. Less than two-thirds of women also experienced irregular menstruation. According to [29]. women who had irregular or lengthy menstrual cycles and high blood flow were more likely to encounter this outcome. According to the findings of the study "Impact of an Educational Program on Sexual Distress Associated with Cervical Cancer" by [30]. the majority of women had normal menstrual cycles.

Concerning characteristics of chronic pelvic pain among examined women: It is expected that about more than half of the analyzed women had a bilateral chronic pelvic pain. Pertaining to kind of pain, less than two-thirds of them had deep discomfort Additionally, almost 52%of them experienced persistent pelvic pain. This finding was consistent with that of [26]. who carried out "a cross sectional study to assess characteristics of women with chronic pelvic pain" and found that 42% of the women had CPP with pain that had persisted for more than ten years. Over half of the women in their study had bilateral chronic pelvic pain. The study focused on the "Application of Continuous Care Model on Pain Coping Strategies and Sexual Quality of Life among Women with Endometriosis related Chronic Pelvic Pain." Regarding the type of discomfort, over 50% of them experienced a dull, aching pain. Additionally, half of them experienced persistent pelvic pain.

The current study found that, in terms of the severity of chronic pelvic pain, the total mean score of women's chronic pelvic pain at pre-intervention and post-intervention phases differed significantly ($P \leq 0.001$), with the total mean pain score falling from 5.59±2.03 at pre-intervention to 4.15±2.26 at post-intervention. This improvement may have resulted from women's active engagement and effective communication with the researchers who assisted them in learning. [31]. study on the "effect of instructional supportive guidelines on alleviating endometriosis related pain symptoms" corroborated this finding. She disclosed that following the implementation of the instructional supportive guidelines and during the follow-up phase, the study

group's numerical rating scale score for endometriosis pains—including dysmenorrhea, chronic pelvic pain, dyspareunia, dyschezia, and dysuria—decreased in comparison to the control group, indicating a reduction in pain level. In contrast, [24].found that "prevalence of endometriosis during abdominal or laparoscopic hysterectomy for chronic pelvic pain" was the cause of this outcome.

This result was supported by [31].who studied "effect of instructional supportive guidelines on alleviating endometriosis related pain symptoms" She revealed that there was a decrease in numerical rating scale score of endometriosis pains which included dysmenorrhea, chronic pelvic pain, dyspareunia, dyschezia, and dysuria after implementation of the instructional supportive guidelines and at follow up phase in the study group compared to the control group, which indicates the decrease of pain level. This result was opposite to [24].who studied "prevalence of endometriosis during abdominal or laparoscopic hysterectomy for chronic pelvic pain".

Self-care behaviors of women in relation to CPP: Promoting one's physical, mental, spiritual, and emotional well-being is known as self-care. [29]. About the women under study's overall mean score for self-care practices: The current study explains that the overall mean score of the women's self-care practices was higher following the adoption of the supportive instructional guidelines than it was prior to implementation, with a highly statistically significant difference between the pre- and post-intervention phases ($p<0.001$)

These notable variations were also observed in every area of self-care behaviors, such as pain management, physical activity, nutrition, and hygiene ($p < 0.001$). This may be because women are drawn to educational training components of the supporting guidelines; for example, "proper diet, exercise, and stress management strategies" assist women learn how to deal with the symptoms of chronic pelvic pain.

These results are in line with[32]. who studied "the effectiveness of self-care and lifestyle interventions in dysmenorrhea" and reported that nutritional regimen, physical activity and hygienic health practices improve general health, disease risk and progression of chronic pain This in turn encourages the health profession to put great emphasize in prescribing physical activity treatments, frequent , hygienic practices and good nutrition which proved its success on women chronic pelvic pain .

This improvement in women's practices may be due to the fact that the women understood the value and accessibility of following all of the instructions that were recommended in the instructional guideline. It also demonstrated the researcher's eagerness to follow the participants and ensure that the instructional guideline was applied, as well as the participants' desire to use the guideline to ease their complaints about CPP and its disadvantages. Study participants' quality of life: The phrase "quality of life" describes the emotional, social, and physical health of women as well as their capacity to carry out daily chores. The current study explains that the overall mean score of the quality of life domains of the women under study was higher following the implementation of the supportive instructional guidelines than it was prior to implementation, with a highly statistically significant difference between the pre- and post-intervention phases ($p<0.001$). Their better self-care habits with reference to CPP might be the cause of this. Thus, they have been able to appropriately recognize QOL-related difficulties and CPP self-care steps according to the educational guidelines.

The importance of educating vulnerable women about the nature of CPP and how to overcome it may also be highlighted by this finding. By doing so, the women are able to develop a positive self-concept and positive self-practices toward CPP-related symptoms, which are essential for the subsequent adoption of self-care practices to enhance their quality of life and overall wellbeing.

The outcome of the current The current study's findings are consistent with those of[33]. who investigated the "Impact of chronic pelvic pain on quality of life in diverse young adults" and discovered that they did better in all four domains (physical health, psychological, social relationship, and environment) and that the difference between the pre- and post-intervention phases was highly statistically significant.

However, this conclusion was in conflict with the findings of [34]. who conducted research on the topic of "Impact of endometriosis on quality of life and mental health: pelvic pain makes the difference" and found that women's QOL scores were considerably poorer in both the physical and psychological areas. Their results demonstrated the strong inverse relationship between higher catastrophizing scores and worse probabilities of having a decent quality of life. among other words, it was determined that pain catastrophizing is more common across all domains among people with apparent substantial CPP.

Concerning correlation between total self-care practices and (total quality of life) scores of the studied women regarding chronic pelvic pain

The study's findings make clear that, both before and after the intervention, there was a highly statistically significant positive association between overall self-care practices and total quality of life with regard to chronic pelvic pain ($P\leq 0.001$). But during the post-intervention period, self-care practices were evident and demonstrated how the self-care instructional guideline had helped them.

The findings were consistent with a study by [18]. titled "Quality of life and sexual satisfaction in women suffering from endometriosis" which found a significant positive correlation between the total female sexual function index and the overall quality of life among endometriosis patients after treatment.

Additionally, this result was in line with the findings of the study "Chronic pelvic pain, Quality of Life and Sexual Health of women treated with Palmitoyl ethanolamine and Lipoic Acid" by [25].which found a significant positive correlation between the study group's quality of life and their level of pain.

A study by [35]. on the "Effect of Psycho-educational Program on Depressive Symptoms, Post-traumatic Stress Response and Quality of Life among Women with Hysterectomy" found a negative correlation between the study participants' overall quality of life and their levels of post-traumatic stress disorder and depressive symptoms before and after the program was implemented.

5- Conclusion

Based on the results of this study, it was determined that after the instructional guideline was implemented, women with chronic pelvic pain had a significant improvement in their self-care practices, which in turn improved their quality of life and sexual health. There was also a highly statistically significant positive correlation between total self-care practices and (total female sexual function index & total quality of life) regarding chronic pelvic pain at both the pre-intervention and post-intervention phases ($P \leq 0.001$). Thus, the study's goal was accomplished and the hypothesis was validated by the conclusion.

6-Recommendations

Applying the CPP education guidelines to routine prenatal care clinic treatment and keeping them up to date to help women learn more about CPP and take better care of themselves.

Women who experience persistent pelvic discomfort should schedule routine follow-up appointments to assess their health-related quality of life in order to improve self-care practice stop their symptoms from getting worse.

In order to enhance women's self-care practices, pain management techniques, and quality of life, obstetrics and gynecological outpatient clinics should offer illustrated booklets about chronic pelvic pain for women.

Additional research:

To ensure that the findings are generalizable, the study should be replicated using a sizable sample in various hospital environments.

-Continuous certified construction manager (CCM) training programs should be provided to maternity nurses in order to enhance their ability to cope with pain.

References:

[1] Speer LM, Mushkbar S, Erbele T (2024): Chronic pelvic pain in women. Am Fam Physician.;93(5): 380-7.

[2] Neis KJ. (2020): Chronic pelvic pain: cause, diagnosis and therapy from a gynecologist's and an endoscopist's point of view. Gynecol Endocrinol.; 25: 757–761.

[3] Prendergast SA, Weiss J (2023): Screening for musculoskeletal causes of pelvic pain. Clinical Obstetrics and Gynecology 46: 773–82.

[4] Jamieson DJ, Steege JF, (2020): The prevalence of dysmenorrhea dyspareunia, pelvic pain and irritable bowel syndrome in primary care practices. Obstetrics and Gynecology;87: 55–58.

[5] Zondervan KT, Yudkin PL, Vessey MP. (2020): Chronic pelvic pain in the community: symptoms, investigations and diagnoses. American Journal of Obstetrics & Gynecology;184: 1149–1155.

[6] Park SJ, Lim JW, Ko YT (2023): Diagnosis of pelvic congestion syndrome using transabdominal and transvaginal sonography. AJR Am J Roentgenol. 182: 683–688

[7] Randall GW, Gantt PA, Poe-Zeigler RL, et al (2023): Serum antiendometrial antibodies and diagnosis of endometriosis. Am J Reprod Immunol58: 374- 382.

[8] Balaji Niwlikar. (2023): What is Quality of life (QoL)? It's Definitions, Components, Importance, etc;96 (5): 370-7.

[9] Bonocher C.M, Montenegro M.L, Rosa. E, Silva J.C, Ferraina R.A, Meola J., (2022): Endometriosis and physical exercises: a systematic review. Reproductive biology and endocrinology. 6(4):12-14.

[10] Rhodin A (2024): Successful management of chronic pelvic pain. J Pain Palliat Care Pharmacother.; 27: 289–291.

[11] Jarrell JF, Vilos GA, Allaire C (2020): Chronic Pelvic Pain Working Group; SOGC Consensus Guidelines for the Management of Chronic Pelvic Pain. J Obstet Gynaecol Can27: 781–801.

[12] Macdonald W, Rogers A, Blakeman T, Bower P. (2023): Practice nurses and the facilitation of self-management in primary care. J Adv Nurs.;62: 191–9.

[13] Yosef A, Ahmed AG, Al-Hussaini T, Abdellah MS, Cua G, Mohamed A and Bedaiwy MA. (2019): Chronic pelvic pain: Pathogenesis and validated assessment, Middle East Fertility Society Journal, 21, 205–221.

[14] American Society for Reproductive Medicine (2018): Treatment of pelvic pain associated with endometriosis: a committee opinion. Fertil Steril; 101(4): 927-9

[15] World Health Organization. (2020): The world health report 2020: reducing risks, promoting healthy life. World Health Organization

[16] Price PC, Jhangiani R, Chiang I-C A. Quasi-experimental research (2024): Research Methods in Psychology – 2nd Canadian edition. BCCampus website. Accessed

November 12, https://opentextbc.ca/researchmethods/chapter/quasi-experimental-research.

[17] Graaff, AA, D'Hooghe, TM., Dunselman, GA., Dirksen, CD., Hummelshoj, L., & Simoens, S. (2019): The significant effect of endometriosis on physical, mental and social wellbeing: results from an international cross-sectional survey. Hum Reprod, 28(10), 2677-2685.

[18] Giuliani, M, Cosmia, V, Pierleonia, L, Recinea, A, Pieronia, M, Ticino, A, Porporab, M.G, Simonelli, C., (2020): Quality of life and sexual satisfaction in women suffering from endometriosis: an Italian preliminary study. Sexologies; 25(5): 12-19.

[19] Zanden MV and Nap A. (2021): Knowledge and treatment strategies for, endometriosis among general practitioners, Reproductive Biomedicine Online 32(5).

[20] Carroll, D., & Browsher, D. (2000): Pain management and nursing care, 2nd ed. Philadelphia: lippihcott co.pp 175-180

[21] World Health Organization (1996): WHOQOL-BREF: introduction, administration, scoring and generic version of the assessment: field trial version, December 1996 (No. WHOQOL-BREF), World Health Organization, http:// www. who. int/mental_ health/media/en/76.pdf.

[22] Georgine Lamvu, Jorge Carrillo M, Chensi Ouy ang, etal. (2024): Chronic Pelvic Pain in Women JAMA; 325(23): 2381-2391.

[23] Ola A.A., Salma H. M. A, Mona A. A, Shaimaa H. E (2024): Application of Continuous Care Model on Pain Coping Strategies and Sexual Quality of Life among Women with Endometriosis related Chronic Pelvic Pain Tanta Scientific Nursing Journal Vol. 35. Print ISSN 2314 – 5595 P: 314-348.

[24] Mowers E. L, Lim C. S, Skinner B ,Mahnert N.K, Neil MA, Morgan D. M. , Sanie S (2020): Prevalence of Endometriosis During Abdominal or Laparoscopic Hysterectomy for Chronic Pelvic Pain Obstetrics & Gynecology 127(6): p 1045-1053.

[25] Caruso, S., Iraci, S., Areri, M., Elisa, C., Ventura, B., Fvava,V., & Cianaci, A. (2020): Chronic pelvic pain, Quality of Life and Sexual Health of women treated with Palmitoylethanolamine and α-Lipoic Acid, MINERVA GINECOLOGICA, 67.453: 545.

[26] Nygaard, A.S., Stedenfeldt, M., Øian, P., & Haugstad, G.K. (2020): characteristics of women with chronic pelvic pain referred to physiotherapy treatment after multidisciplinary assessment: a cross-sectional study. Scand J Pain. Apr 24; 19(2), 355-364.

[27] [27] Chan , S. S., Cheung, R. Y., Yiu, K. W., Lee, L. L., Pang, A. W., and Chung, T. K., (2021): Symptoms, quality of life, and factors affecting women's treatment decisions regarding pelvic organ prolapse, Int Urogynecol J 23:1027–1033.

[28] Eman A.G.A, Azza I.A & Naeima M. E. A (2023): Effect of Instructional Guidelines on Knowledge and Selfcare Practices of Pregnant Women with Urinary Tract Infections" Zagazig Journal July; Vol.19; No.2: P 130-151.

[29] Monroe C, Loresto F, Horton-Deutsch S, et al (2023): intentional self-care practices: The effects of mindfulness on improving job satisfaction, teamwork, and workplace environments. Arch Psychiatr Nurs.;35(2):189-194.

[30] Ali R., Kamal H., Hassan H., Abd El Salam S. (2021): Impact oEducational Program on Sexual Distress Associated with Cervical Cancer. Further Applied Healthcare, (1): 30-42.

[31] [31] Aya MF, Dalal M E, Saed S A, Eman S S (2022): Effect of Instructional Supportive Guidelines on Alleviating Endometriosis Related Pain Symptoms Menoufia Nursing Journal Article 12, Volume 7, Issue 1, Page 189-206. .doi:10·1186/1471-2296-11-7.

[32] Armour, M., Smith, C. A., Steel, K. A., & Macmillan, F. (2020): The effectiveness of self-care and lifestyle interventions in dysmenorrhea: a systematic review and meta-analysis. BMC complementary and alternative medicine, 19 (1), PP 22-32.

[33] Cagnacci A, Della Vecchia E, Xholli A (2023): Chronic pelvic pain improvement: impact on quality of life and mood. Gynecol Endocrinol 35(6):502–505.

[34] Facchin, F., Barbara, G., Saita, E., Mosconi, P., Roberto, A., Fedele, L., Vercellini, P., (2021): Impact of endometriosis on quality of life and mental health: pelvic pain makes the difference. J Psychosom Obstet Gynaecol; 36(2): 135-141.

[35] Doha A. M, Naglaa F.E and Hend A. M (2022): Effect of Psycho- educational Program on Depressive Symptoms, Post-traumatic Stress Response and Quality of Life among Women with Hysterectomy Journal of Nursing Science ISSN 2682 – 3934, Vol. (3) No. (2).