

Clinical Aspects and Quality of Life among Women with Endometriosis in Port Said City

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Abstract

Background: Endometriosis is a common benign gynaecological illness that has negative impact on quality of life, particularly in women of childbearing age. **Aim:** To assess clinical aspects and quality of life among women with endometriosis in Port Said city. **Design:** A descriptive study was used. **Setting:** All gynecology clinics at hospitals and primary health care centers that follow comprehensive health insurance system in Port Said City. **Subjects:** Purposive sample of 200 women with endometriosis who had been surgically identified were chosen. **Tools:** Interviewing questionnaire and the Endometriosis Health Profile (EHP-30+5). **Results:** More than two-thirds of women (62.0%) had pelvic pain. The majority of them (83.0 percent) were infertile. There was a delay in seeking treatment with a mean 5.7±1.6 between the onset of symptoms and the surgical diagnosis of endometriosis. Also, endometriosis has a adverse impact on a woman's quality of life, and there was statistically significant association between endometriosis stages and woman's quality of life in terms of physical, psychological, sexual, educational, and occupational activities. **Conclusion:** Despite its negative influence on a woman's quality of life in terms of physical, psychological, sexual, educational, and working life, there was a delay in seeking treatment for endometriosis. **Recommendations:** Women's must be taught how to seek treatment sooner rather than later. In addition, patients will be taught how to manage with chronic pelvic discomfort and how to develop relationships with their partner and friends so that they are supportive in managing with the disease rather than drifting apart due to misconceptions.

Key words: Endometriosis, Women, Quality of life, Clinical Aspects.

Introduction

Endometriosis is an estrogen-dependent condition marked by the formation of endometrial tissue in the extrauterine ovary, uterine ligaments, sigmoid colon, peritoneal pelvis, cervix, and infrequently the pleura and pericardium. It is also a benign chronic condition characterised by the existence of ectopic endometrial tissue, which differentiates, proliferates, and bleeds in response to variations in ovarian steroids (Angioni, 2017).

In fact, endometriosis prevalence statistics differ greatly from one study to the

next, depending on the demographic investigated. The prevalence of endometriosis in American women of childbearing age is believed to be between 10% and 15%. Endometriosis is difficult to diagnose because surgical verification is required. As a result, the exact prevalence of the condition is unknown. It is virtually entirely present in women of reproductive age, and it is the single most common reason for women in this age group to be admitted to the hospital. Endometriosis affects approximately 20% of women with persistent pelvic discomfort and 30% to 40% of women who are infertile (Parazzini, Esposito, Tozzi, Noli & Bianchi, 2017).

Many factors have a part in the etiopathogenesis of endometriosis, according to recent research: genetic, hormonal, and immunological factors all play a role, and intestinal permeability may also play a role (Murgia, Angioni & D'Alterio, 2021).

Endometriosis has an adverse impact on women's quality of life (QoL), and the majority of them miss work due to pain. Severe pain and dyspareunia indicate loss in social and sexual aspects of life, such as poor quality of life and lost productivity at work, which accounts for at least 60% of lost production. The classic endometriosis triad (dyspareunia, dysmenorrhea, and infertility) has a direct influence on women's lives in a variety of ways, including social, sexual, physical, and psychological. Pain is cyclic in nature, and as a result, it is repeated and prone to worsening condition with each cycle, interfering with women's overall health (Vercellini et al., 2011).

Furthermore, a qualitative study examining the experiences of women with the disease discovered that several aspects of their lives were impacted, including work, family, social activities, finances, sexuality, and intimacy; both sexual and intimate relationships were harmed as a result of dyspareunia, vaginal dryness, and a decrease in libido (Missmer et al., 2021).

Therefore, it's critical to take a multifaceted approach to the integral health of women with endometriosis so that they can help alleviate symptoms while maintaining their quality of life. Furthermore, the holistic view is fundamental in the care provided by the nursing team, rather than focusing only on the physical and laboratory findings, because taking care of the emotional symptoms, in addition to the physical ones, can result in great benefits, making the therapeutic process more assertive, that is, the holistic view is fundamental in the nursing team's care (De Souza et al., 2019). So, the present study was aim to assess clinical symptoms and QoL in women with endometriosis.

Significance of Study:

During their reproductive years, endometriosis affects about one out of every ten women. Meanwhile, 176 million women around the world were impacted during their prime years of life, according to Adamson (2016). Endometriosis is becoming more common and severe in developing countries, according to reports. It is a dangerous problem that requires a concerted effort to reduce its incidence and assist women's with endometriosis in living a better quality of life. It has an impact on women's daily lives, obstructing their daily activities, personal connections, and reproductive potential.

Also, endometriosis has been identified as a health priority due to its severe impact on women's quality of life in terms of pain and infertility, as well as the financial burden of diagnosis, pharmacologic and surgical treatments, and assisted fertilization procedures (Ali Nor, Ibrahim, Elbahlawan, El-LattifMontaser & Hamdy, 2020). Maternity nurses should be aware of this problem in order to provide proper support to ladies suffering from endometriosis. Because there are few qualitative researches on endometriosis and its impact on women's lives, therefore, study was conducted to evaluate clinical symptoms and quality of life in women with endometriosis in Port Said.

Aim of Study:

The aim of the present study was to; assess clinical aspects and quality of life among women with endometriosis in Port Said city.

The aim was fulfilled through the following:

- Assess the clinical aspects of women's with endometriosis.
- Assess the effect of endometriosis on women's quality of life.

Research question:

1. What are the clinical aspects of women's with endometriosis?
2. What is the effect of endometriosis on women's quality of life?

Subjects and method:**Technical design:**

The research design, settings, subjects, and data collection tools are all included in this design.

Research design:

To attain the stated goal, this study used a descriptive design.

Study setting:

The present study was carried out in the gynecology outpatient clinic at all hospitals (Obstetrics specialized hospital & Alhayaa hospital) and all primary health care centers (El Arab, El Gwhara, Omar Ebn Elkhatab, , El kabouty, Tacawuniaat El zuhur, El eilaj Eltabieaa, Port Fouad First and Mustafa Kamel) that follow comprehensive health insurance system in Port Said City.

Study sample:

For this study, purposive sample of 200 women with endometriosis who visited the study setting during study period (six months) and met the following inclusion criteria were recruited.

Inclusion criteria:

- Infertile and endometriosis women whose diagnosis and staging of the disease had been confirmed by laparoscopy, as well as those who had free from other chronic disease.
- The woman agrees to take part in the research.

Tools of data collection:

Tool (I): An interviewing questionnaire that was adapted in English from Ali Nor et al. (2020) to collect the essential data. It is divided into two sections:

Part I. This comprises information regarding the study subjects' personal and general characteristics, such as (age, level of education and occupation, etc). Age of menarche, regularity, amount of menstrual flow, bleeding duration, and presence of dysmenorrhea are all factors to consider. obstetric history (for example, gravida, para, abortions, and so on). In addition, a thorough medical, surgical, family, and gynaecological history was acquired.

Part II. Information on the diseased condition, such as the symptoms it caused, when endometriosis first appeared, the stages it went through, the diagnose delay, and the treatment it received. In addition, the patient's experience and knowledge with endometriosis.

Tool (II): Endometriosis Health Profile:

The Endometriosis Health Profile is a patient-reported Health Related Quality of Life (HRQoL). It was adapted in English from Jones, Kennedy, Barnard, Wong, and Jenkinson (2001) and adjusted by the researcher to quantify the full variety of consequences that endometriosis can have on women's lives. It includes information about the impact of endometriosis on one's physical, psychological, sexual, occupational, and educational lives.

Scoring system:

A 35-item questionnaire was used to measure the impact of endometriosis on women's quality of life. The response to these items were tallied on a three-point scale ranging from 1 (rare) to 3 (often). The questionnaire assessed five domains: endometriosis' impact on physical condition (7 questions), endometriosis' impact on psychological condition (13 questions), endometriosis' impact on sexual relationship (4

questions), endometriosis' impact on education (5 questions), and endometriosis' impact on work (5 questions) (6 questions). Each domain's score is the total of the scores of its component elements. The scores were then divided into two groups: those with a score of less than 60% had minimal impact on the domain, while those with a score of more than 60% had a bigger impact.

Administrative design:

An official permission was obtained after the faculty of nursing submitted an official letter to the competent authorities of the previous mentioned setting to acquire their permission for data collecting.

Operational design:

Preparatory phase, tool validity, reliability, pilot research, and fieldwork are all part of the operational design.

Preparatory phase:

The goal of the preparatory phase was to get the data collection instruments ready. To gain a better understanding of the study subject, the researcher used books, papers, the internet, periodicals, and magazines to review local and worldwide literature, different studies, and theoretical knowledge of many areas of the research topic. This also aided in the creation of the research instruments.

Tools validity:

The instruments were verified for content validity by five specialists in the fields of obstetrics and gynaecological nursing and medicine. The suggested changes were made, and the finished form was ready to use.

Reliability:

The study tool was subjected to an Alpha Cronbach reliability analysis. It was discovered that the tool's query statement was relevant as the Cronbach's Alpha coefficient test found $r = 0.863$ for interviewing

questionnaire, $r = 0.951$ for Endometriosis Health Profile.

Ethical considerations:

The Research Ethics Committee of Port Said University's Faculty of Nursing approved the study. The study's goal was presented to all women with endometriosis by the researchers. Women were also told that they might leave the study at any time and without giving a reason. They were informed that all research data would be kept private and utilized specifically for the purpose of the study. The privacy of the subjects was always respected. The women then signed informed written consents before being enrolled.

Pilot study:

Over the course of a month, the pilot study was conducted. It was carried out on 10% of the entire sample size to assess the tools' reliability and applicability, as well as to estimate the amount of time required to complete the questionnaire. According to the findings of the pilot study, necessary changes were made. According to the findings and acceptance of the final form, the study instrument was improved, revamped, and rewritten.

Field of work:

Data was gathered over a six-month period, from the beginning of December 2019 to the end of May 2020. The researcher began collecting data from each previous mentioned sitting on six days alternately until the required sample size was fulfilled. The researcher spoke with women who had either come for additional testing and treatment or for follow-up.

The researcher went to the gynaecological outpatient clinic at the study site; each study sitting was given six days alternatively over the course of six months. Every woman's personal information, menstrual history, obstetric history,

gynaecological history, family history of endometriosis, and current medical history were all questioned. Patients' complaints and symptoms, as well as their understanding of endometriosis, their experiences with health providers, and their thoughts on the impact of endometriosis symptoms on their lives, were all taken into consideration.

The Endometriosis Quality Health Profile was developed to evaluate the impact of endometriosis on the patient's physical, psychological, sexual, occupational, and educational lives. I read each statement to the woman and note her reaction or response.

Medical records for endometriosis patients were gathered and thoroughly examined in order to obtain information on the surgery report. This revealed the woman's accurate diagnosis, endometriosis stage, age at diagnosis, date of previous laparoscopy if she returned for follow-up, medical, obstetrical, and gynaecological history, and so on.

The final version of an interviewing questionnaire sheet that the researcher utilized to collect data from study participants in complete privacy. Each women with endometriosis had a personal interview at the gynaecological outpatient, which lasted 30 minutes.

Because of the low rate of women attendance according to the previously indicated inclusion criteria, the sample size was small slightly, along with the inability to apply statistical equations to choose the study sample. This restricted the ability to generalize the findings, but it did provide an overview of the impact of endometriosis on women's quality of life.

D) Statistical design:-

SPSS for Windows version 20.0 was used for all statistical analyses (SPSS, Chicago, IL). Continuous data were expressed as mean \pm standard deviation, whereas categorical data were expressed as number and percentage.

Using the chi-square test, we were able to compare variables with categorical data. The p.0.05 level of statistical significance was used.

Results:

Table 1 shows the distribution of the women in the study based on their personal and general characteristics. It was discovered that women's ages ranged from 19 to 40 years, with a mean age of 29.1 ± 4.8 years and 70% between the ages of 25 and 35. About 52% of the women in the study were highly educated, 84% were married and 56% of them were working. Moreover, 74% of women did not have enough money each month, and 20% of them had a family history of endometriosis.

Table 2 presents the distribution of the women in the study based on their clinical features, stages and delay of diagnosis. 62.0% of the women had both cyclic and acyclic pelvic pain. During and after the intercourse, 58.0 percent of the participants experienced dyspareunia. Dysuria, stomach cramps, and post-coital bleeding were all reported by 20.5 percent, 44 percent, and 11.0 percent of the participants, respectively. Majority of women (83 percent) had a history of infertility that lasted between 3 and 15 years, with a mean of 5.8 ± 4.6 years. Also, stage II (moderate) was the most common, followed by stage III (severe) in the majority of the women evaluated (69 percent & 17 percent respectively). Furthermore, there was a mean of 5.7 ± 1.6 between the onset of symptoms and the surgical diagnosis of endometriosis.

Endometriosis has a negative impact on the physical lives of the women tested (79.0 percent), as seen in **Table 3**. Physical restrictions in terms of body movement, anorexia, working, and caring for their children were observed in the majority of the study group on a regular basis (71.0 percent, 74.0 percent, 75.0 percent and 79.0 respectively).

Table 4 shows that endometriosis had a negative impact on the psychological health of the women investigated (75.0 percent). Almost

three-quarters of the women express frustration with their symptoms not improving, as well as feelings of inadequacy and depression at the prospect of not having children, as well as depression, anxiety, and low self-esteem. This was observed in the majority of the group at times and on a regular basis (74.0 percent, 77.0 percent and 79.0 percent respectively).

Table 5 demonstrates that dyspareunia had a significant negative impact on sexual life for more than two-thirds of the women surveyed (67.4%). 76.6 % of women had felt of guilt about not wanting to have intercourse and 75.6% of them had felt of frustration as a result of avoiding or being unsatisfied with intercourse.

Table 6 shows that endometriosis has a negative impact on women's educational lives, as evidenced by the presence of endometriosis in more than three-quarters (77.8%) of the

women analysed. This was especially evident in the factors of frequent sickness absence, poor of concentration, and carrying out school responsibilities (69.8 percent, 70.7 percent and 63.1 percent respectively).

Endometriosis has a significant negative impact on women's work lives (73.3 percent), as seen in **Table 7**. Nearly 75% of women had taken time off work because of discomfort on occasion or on a regular basis, causing women to feel guilty and embarrassed because of the loss of productivity.

Table 8 reveals a statistically significant association between endometriosis stages and adverse aspects of women's quality of life in terms of physical, psychological, sexual, educational, and professional working life.

Table 1: Distribution of the studied women with endometriosis according to their personal and general characteristics.

Variables	Studied women (n = 200)	
	No.	%
Age (years)		
<25	34	17
25 - 35	140	70
>35	26	13
Min-Max	19 – 40	
Mean ±SD	29.1 ± 4.8	
Residence		
Rural	90	45
Urban	110	55
Educational level		
Illiterate	22	11
Basic	34	17
Secondary	40	20
Higher	104	52
Marital status		
Single	4	2
Married	168	84
Divorced	28	14
Employment		
House wives	88	44
Work	112	56
Monthly income		
Not enough	148	74
Enough	52	26
Family history of endometrioses		
No	160	80
Yes	40	20

Table 2: Distribution of the studied women with endometriosis according to their clinical aspects, stages, and delay of diagnosis (n=200)

variable	No	%
Clinical pictures		
Pain		
Both cyclic and acyclic pain	124	62
cyclic pain	20	10
Acyclic pain	56	28
Dyspareunia		
Dyspareunia during and after intercourse	116	58
Dyspareunia after intercourse	18	8.7
Dyspareunia during intercourse	36	18.1
Dyspareunia all the month	30	15.2
Urinary problems		
Supra- pubic pain	30	15
Combination of urgency & urinary frequency	39	19.5
Dysuria	41	20.5
Digestive problems		
Dyschesia during menses	27	13.6
Constipation lasting for days	37	18.4
Diarrhea	48	24
Abdominal cramping	88	44
Abnormal bleeding		
Blood in urine or stool	4	2
Post-coital bleeding	22	11
Infertility		
Yes	166	83
No	34	17
Duration of infertility		
<5 years	50	30.1
5 – 10 years	88	53
>10 years	28	16.9
Min-Max		3-15 years
Mean ±SD		5.8± 4.6
Stages of endometriosis		
Stage I	28	14
Stage II	138	69
Stage III	34	17
Delay of diagnosis		
≤5 year	70	35
≥5 year	130	65
Min-Max		2-10 years
Mean ±SD		5.7± 1.6

Table 3: Distribution of the studied women with endometriosis according to impact of endometriosis on women physical life (n=200)

How often ,because of your endometriosis	Rare (%)	Sometimes (%)	Often (%)
1) Found difficulty in body movements as (walking-sitting- standing) because of the pain?	29	48	23
2) Lost your appetite and unable to eat	26	40	34
3) Been unable to sleep probably	36	37	27
4) Been unable to do jobs	25	38	37
5) Found difficulty to take care of your self	35	30	35
6) Found difficulty to look after of children	21	50	29
7) Been unable to do the leisure activities	40	31	29
Total score:			
Little impact: positive <60%		42(21.0%)	
Great impact: negative>60%		158(79.0%)	

Table 4: Distribution of the studied women with endometriosis according to impact of endometriosis on women psychological life (n=200)

How often, because of your endometriosis, have you	Rare %	Sometimes %	Often %
1) Felt frustrated because your symptoms are not getting better	26	34	40
2) Felt frustrated because you are not able to control your symptoms	29	37	34
3) felt inadequate because you may not / have not been able to have children/more children	29	35	36
4) felt depressed at the possibility of not having children /more children	23	37	40
5) felt worried about the possibility of not having children/ more children	23	37	40
6) Feeling of depression & anxiety	21	40	39
7) Felt miserable?	24	35	41
8) Had mood swings?	37	35	28
9) Felt or violent aggressive	35	28	37
10) Lacked confidence	21	34	45
11) Felt unable to tell people how you feel?	34	37	29
12) Felt your symptoms are taking away your life?	26	33	41
13) Felt alone?	25	43	32
Total score:			
Little impact: positive <60%		50(25%)	
Great impact: negative>60%		150(75%)	

Table 5: Distribution of the studied women with endometriosis according to impact of endometriosis on women sexual life (n=196)

How often, because of your endometriosis, Have you.....	Rare (%)	Sometimes (%)	Often (%)
1)Felt worried about having intercourse because of the pain?	58 (29.7%)	64 (32.6%)	74 (37.7%)
2) Avoided intercourse because of the pain?	64 (32.6%)	66 (33.7%)	66 (33.7%)
3) Felt guilty about not wanting to have intercourse	46 (23.4%)	58 (29.7%)	92 (46.9%)
4) Felt frustrated because you cannot enjoy intercourse	48 (24.4%)	80 (40.8%)	68 (34.8%)
Total score:			
Little impact: positive <60%		64 (32.6%)	
Great impact: negative>60%		132(67.4%)	

Table 6: Distribution of the studied women with endometriosis according to impact of endometriosis on women educational life (n= 198)

How often, because of your endometriosis, Have you.....	Rare (%)	Sometimes (%)	Often (%)
1) Had to take time off school/ university because of the pain?	60 (30.3%)	73 (37%)	65 (32.8%)
2) Felt guilty about taking time off school/ university because of the pain?	54 (27.3%)	84 (42.4%)	60 (30.3%)
3) Been unable to concentrate and study because of the pain?	58 (29.3%)	75 (37.9%)	65 (32.8%)
4) Been unable to carry out duties at school/ university because of the pain?	73 (36.9%)	65 (32.8%)	60 (30.3%)
5) Felt embarrassed about symptoms at school/ university?	78 (39.4%)	51 (25.8%)	69 (34.8%)
Total score:			
Little impact: positive <60%		44 (22.2%)	
Great impact: negative>60%		154 (77.8%)	

Table 7: Distribution of the studied women with endometriosis according to impact of endometriosis on women working life (n= 112)

How often, because of your endometriosis, Have you.....		Rare (%)	Sometimes (%)	Often (%)
1)	Hold to take time off because of the pain?	28 (25%)	50 (44.6%)	34 (30.4%)
2)	Felt guilty about taking time off work	24 (21.4%)	36 (32.2%)	52 (46.4%)
3)	Been unable to do things you want to do because of the pain?	32 (28.6%)	40 (35.7%)	40 (35.7%)
4)	Been unable to carry out duties at work because of the pain?	24 (21.4%)	42 (37.5%)	46 (41.4%)
5)	Felt embarrassed about symptoms work?	38 (33.9%)	42 (37.5%)	32 (28.6%)
6)	Felt worried about not being able to do your job?	34 (30.4%)	40 (35.7%)	38 (33.9%)
Total score:				
Little impact: positive <60%			30 (26.7%)	
Great impact: negative>60%			82 (73.3%)	

Table 8: the relation between the stages of the disease and level of negative impact

Quality of the life domains "Negative aspect" >60%	Stages of endometriosis					
	Moderate and severe		Mild		Chi square test	
	No	%	No	%	No	%
Physical domain (n=200)	174	87	57	28.5	36.208	<0.001
Psychological domain (n= 200)	174	87	0	0.00	92.120	<0.001
Sexual domain (196)	153	76.5	15.4	7.7	46.697	< 0.001
Educational life (n= 198)	168	84	46	23	38.090	<0.001
Working life (n= 112)	167	83.3	25	12.5	25.497	<0.001

Discussion:

Endometriosis is an underdiagnosed, under-reported, and under-researched chronic condition (Moradi, Parker, Sneddon, Lopez & Ellwood, 2014). The presence of functional endometrial glands and stroma outside the uterine cavity, which are ordinarily part of the uterine cavity's innermost lining (the endometrium), is classified as endometriosis. Endometrial tissue is found inside the myometrium in adenomyosis (Dunselman et al., 2014).

The prevalence has been estimated to be

around 10% in the general female population and 20% to 90% in women suffering from pelvic discomfort or infertility (Wolman, 2014). However, the exact etiology and pathogenesis are unknown (Sourial, Tempest & Hapangama, 2014). Endometriosis is known as "the missed disease" because there is no cure, a significant financial cost, and no promise that it will not return (Moradi et al., 2014). Despite the fact that Nnoaham et al. (2011) found poor health-related quality of life and work productivity across countries and ethnicities, women continue to face diagnostic delays. Therefore, the present study was conducted to explore clinical aspects of endometriosis and its impact on woman's quality of life.

According to results of the present study, pain is the most common symptom among endometriosis women, and it can manifest itself in a variety of ways, including dysmenorrhea, dyspareunia, chronic pelvic pain, dysuria, and dyschezia. The high prevalence of symptoms in this study is similar with findings from two previous investigations in much smaller groups of women with persistent endometriosis who regularly experienced both dysmenorrhea (71–94%) and dyspareunia (32–70%) (Tripoli et al., 2011). They went on to say that these symptoms lead to serious health problems and a considerable decline in women's quality of life.

Irritable bowel syndrome and chronic constipation in patients with endometriosis, according to **MeursSzojda, Mijatovic, FeltBersma & Hompes study (2011)**, women with endometriosis commonly experience gastrointestinal symptoms such as abdominal pain, bloating, nausea, constipation, vomiting, painful bowel movements, and diarrhoea. Women with endometriosis have also reported cycle associated bloating, constipation, mucus passing in the stools, and cyclical rectal bleeding. Furthermore, **Ali Nor, Ibrahim, Elbahlawan, El-LattifMontaser, and Hamdy (2020)** found that urogenital tract involvement occurs in around 10%–15% of endometriosis patients. Frequency, urgency, suprapubic pain, dysuria, and a positive association between the degree of dysuria and the diameter of the lesion have all been seen. The above-mentioned finding was somewhat similar to the current study's findings.

It was clear from the results that over two-thirds of the participants were childless, with the majority suffering from infertility for three to fifteen years. This agrees with **Moradi et al. (2014)** regarding enhance the wellness of those living with endometriosis, who reported that the majority of women with endometriosis have trouble getting pregnant, with 71 percent of them having attempted and 90 percent have experienced problems. They went on to say that infertility is a source of concern for women, leading to sadness and feelings of

inadequacy, as well as uncertainty about future fertility, all of which contribute to the failure of a relationship.

According to the findings of this study, the time between the onset of symptoms and diagnosis ranged from two months to ten years, with women already suffering from severe symptoms. Most women said they saw a variety of doctors and had a variety of tests done, but they were never diagnosed with endometriosis. They were dissatisfied with their therapy, and more than three-quarters of the women in the study lacked knowledge about endometriosis.

This is consistent with the findings of **Crispi Jr et al., (2021)**, who reported that the average time between diagnosis and treatment was 8.1 years, ranging from three months to 24 years. They went on to say that they'd been misdiagnosed and treated for appendicitis, ovarian cysts, ectopic pregnancy, pelvic inflammatory disease, and ovarian cancer in some cases.

Meanwhile, a study by **Nnoaham et al. (2011)** about the impact of endometriosis on quality of life and work productivity in ten countries found that there was a 6.7-year delay between the onset of symptoms and a surgical diagnosis of endometriosis, which was longer in centres where women received mostly state-funded health care (8.3 vs. 5.5 years).

Facchin et al., (2015) recently reported that women normalized severe period pain or other symptoms and did not take them seriously. Because they didn't believe them or lacked expertise, they and their doctors misdiagnosed or mistreated them. Participants reported difficulty finding a gynaecologist and extensive surgery waiting lists, both of which contributed to a delay in diagnosis. Because of a known family history, knowledge from the internet or informed friends, and interaction with other endometriosis sufferers, some women reported turning to self-diagnosis.

The majority of the patients evaluated had an adverse impact on their physical lives, as evidenced by the current findings. Physical restrictions in terms of body movement, anorexia, conducting housework, and caring for their children were observed in the majority of the investigated sample on a regular basis. This is in line with the findings of **Fourquet, Báez, Figueroa, Iriarte, and Flores (2011)**, who indicated that 61.0 percent of women with endometriosis have mobility, daily activities, and/or self-care issues. Meanwhile, 58.0 percent of respondents reported more sleep disruptions, and 45.0 percent reported a negative influence on their childcare. In addition, **Nnoaham (2011)** mentioned that women with endometriosis had poorer physical health than the general population in a cross-sectional study conducted in ten countries.

Endometriosis was also found to have a negative impact on the psychological well-being of the women in the current study. Almost three-quarters felt irritated because their symptoms were not improving, inadequate and depressed at the prospect of not being able to have children, as well as depression, anxiety, and low self-esteem. In this line **Simoens et al. (2012)** found that endometriosis symptoms have a negative impact on a patient's psychological well-being. Also, according to **Yoon, Park & Park (2021)**, the majority of women feel disturbed, furious, depressed, uncertain, weak, powerless, helpless, hopeless, defeated, disappointed, frustrated, fatigued, and like a burden to others. Other stated psychological effects included a negative influence on self-esteem, self-confidence, and a lack of control over their lives (powerlessness).

Moreover in this regard, it was noted that having endometriosis, despite being asymptomatic, entails living with a chronic condition that damages the "core" of femininity, as it can cause sexual issues and even infertility. The mere knowledge of having endometriosis may be linked to negative emotions (e.g., being "different," being sick," being a "incomplete" woman), as well as depression-like behaviour and melancholy). The psycho-neuro-immune

nature of the disease may heighten women's perceptions of depressive symptoms and distress; acute and chronic stress, depression, and anxiety may have a negative impact on the immune system, leading to the development of a vicious circle of inflammation, sickness behaviour, and depression (**Nasyrova et al., 2011**).

In a population of women facing infertility, a similar link between disturbed sexual life and lower quality of life score was discovered, which is consistent with the current study. Many of them had major problem with their partners as a result of endometriosis, and some of them cited endometriosis for their divorce (**Turgut & Turgut, 2021**).

Meanwhile, according to **West (2021)**, endometriosis has a negative impact on women's sexual lives, with the majority of women experiencing shame or irritation as a result of avoiding or being unsatisfied with intercourse.

Endometriosis had a negative impact on women's educational lives in more than three-quarters of the women in this study. This was especially evident in the factors of frequent sick days, low focus, and carrying out school responsibilities. In the meantime, endometriosis had a significant detrimental impact on women's professional lives. Nearly three-quarters of them have taken time off work because of discomfort on occasion or on a regular basis, making women feel guilty and embarrassed about the loss of productivity.

Conversely **Turgut & Turgut study (2021)** who reported that, impact on schooling proved to be less pronounced, with only 16.0 percent of responding women indicating that endometriosis-related symptoms caused them to miss substantial time at school. This could be due to the fact that the average age of onset of symptoms is 24 years old, by which time most women have completed their formal schooling. The impact of endometriosis on employment, on the other hand, was plainly noticeable, with 51.0 percent of women indicating that endometriosis had a major impact on their career at some point

in their lives.

Moreover, **Aerts et al. (2018)** mentioned that endometriosis had a detrimental impact on women's study activity and grades, as well as causing some to drop out of school before graduating. The differences between the above conclusion and the current one could be explained by differences in sample size, design, and patient selection criteria.

In a previous study of 78 women diagnosed with endometriosis 15 years prior to the study, women reported that during this 15-year period, 8.5 percent had an affected education, 49.3 percent had impaired work ability, 15% had serious relationship problems, and 7.7% had a broken relationship due to endometriosis symptoms (**De Graaff et al., 2013**).

More recently, academics have looked into how endometriosis has impacted women's job life. According to several studies, endometriosis symptoms, particularly pain symptoms, have an influence on work productivity, with between 23 and 66 percent of women experiencing limits in their capacity to conduct work-related activities (**Culley et al., 2013**). This is in line with the findings of a recent study, which found that women were frequently unable to perform work responsibilities due to discomfort and felt bad about it. The majority of them were ashamed at work because of their symptoms. In this regard, **Moradi et al., (2014)** revealed that the main issue mentioned by the women in their survey was the unfavourable impact of endometriosis-related symptoms on employment. Endometriosis caused them to miss work, select part-time work, and be less productive, while others had to give up their chosen career or miss out on a promotion opportunity.

Furthermore, according to **El-maraghy, Labib, and Salah (2017)**, endometriosis has a considerable negative influence on job productivity and Health Related Quality of Life of affected Egyptian women, resulting in a large economic burden and significant societal

expenses.

According to the findings, there is a statistically significant association between endometriosis stages and negative aspects of women's quality of life in terms of physical, psychological, sexual, educational, and professional working lives. This is in line with the findings of **Nnoaham et al., (2011)**, who found that advanced stages of rAFS have a detrimental impact on work productivity and health-related quality of life. Women with advanced stages of endometriosis, on the other hand, scored higher on mental health and emotional role limitation areas, according to **Marques et al (Marques et al., 2004)**.

Conclusion:

Based on study findings, it can be concluded that:

This study offered concrete evidence of endometriosis' adverse impact on crucial aspects of physical, psychological, sexual, educational, and occupational working life. Furthermore, there is a statistically significant association between endometriosis stages and negative aspects of women's quality of life.

Recommendations:

The following recommendations were made based on the findings of the current study:

- In addition to continuing to improve surgical techniques and medicinal therapy, nursing and medical care for women with endometriosis should address the physical, emotional, sexual, and social difficulties that come with the disease.
- A big comprehensive study about addressing the quality of life in a women's with endometriosis is needed because existing studies have slight limited sample sizes and only look at newly diagnosed patients.
- In order to improve the outlook for affected women, future research should focus on the

underlying pain processes in endometriosis and discover symptom control techniques that target those pathways.

- Future research should explore the underlying pain processes in endometriosis and discover symptom control techniques that target those pathways in order to improve the outlook for affected women.

References:

- Adamson, G. D. (2016).** Endometriosis: Medical and Surgical Management of Pain and Infertility. International Federation of Gynecology and Obstetrics, 1–50.
- Aerts, L., Grangier, L., Streuli, I., Dällenbach, P., Marci, R., Wenger, J. M., & Pluchino, N. (2018).** Psychosocial impact of endometriosis: From co-morbidity to intervention. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 50, 2-10.
- Ali Nor, S., Ibrahim, S. S., Elbahlawan, G. A., El-LattifMontaser, A., & Hamdy, W. (2020).** ASSESSMENT THE HEALTH-RELATED QUALITY OF LIFE AMONG ENDOMETRIOSIS WOMEN IN MATERNAL AND CHILD HEALTH CENTERS IN DAMIETTA. *Port Said Scientific Journal of Nursing*, 7(4), 204-227.
- Angioni S (2017):** New insights on endometriosis. *Minerva Ginecol* 69(5): 438–439. <https://doi.org/10.23736/S0026-4784.17.04089-8>
- Bulletti, C., Coccia, M. E., Battistoni, S., & Borini, A. (2010).** Endometriosis and infertility. *Journal of assisted reproduction and genetics*, 27(8), 441-447.
- Crispi Jr, C. P., Crispi, C. P., de Oliveira, B. R. S., de Nadai Filho, N., Peixoto-Filho, F. M., & Fonseca, M. D. F. (2021).** Six-month follow-up of minimally invasive nerve-sparing complete excision of endometriosis: What about dyspareunia?. *Plos one*, 16(4), e0250046.
- Culley, L., Law, C., Hudson, N., Denny, E., Mitchell, H., Baumgarten, M., & Raine-Fenning, N. (2013).** The social and psychological impact of endometriosis on women's lives: a critical narrative review. *Human reproduction update*, 19(6), 625-639.
- De Graaff, A. A., D'Hooghe, T. M., Dunselman, G. A., Dirksen, C. D., Hummelshoj, L., WERF EndoCost Consortium, ... & Wullschleger, M. (2013).** The significant effect of endometriosis on physical, mental and social wellbeing: results from an international cross-sectional survey. *Human reproduction*, 28(10), 2677-2685.
- De Souza, T. S. B., Santos, N. P. A., Mota, J. L. S., Silva, M. V. D., Silva, N. F. D., & Santos, R. B. D. (2019).** ROLE OF NURSING IN RELATION TO ENDOMETRIOSIS AND DEPRESSION CARRIERS. *Journal of Nursing UFPE/Revista de Enfermagem UFPE*, 13(3).
- Dunselman, G. A. J., Vermeulen, N., Becker, C., Calhaz-Jorge, C., D'Hooghe, T., De Bie, B., ... & Nelen, W. L. D. M. (2014).** ESHRE guideline: management of women with endometriosis. *Human reproduction*, 29(3), 400-412.
- El-maraghy, M., Labib, K., & Salah, W. (2017).** The Impact of Endometriosis Symptoms on Health Related Quality of Life and Work Productivity in Egypt, 4(3).
- Facchin, F., Barbara, G., Saita, E., Mosconi, P., Roberto, A., Fedele, L., & Vercellini, P. (2015).** Impact of endometriosis on quality of life and mental health: pelvic pain makes the difference. *Journal of Psychosomatic Obstetrics & Gynecology*, 36(4), 135-141.
- Fourquet, J., Báez, L., Figueroa, M., Iriarte, R. I., & Flores, I. (2011).** Quantification of the impact of endometriosis symptoms on health-related quality of life and work productivity. *Fertility and sterility*, 96(1), 107-112.
- Jones, G., Kennedy, S., Barnard, A., Wong, J., & Jenkinson, C. (2001).** Development of an endometriosis quality-of-life instrument: The Endometriosis Health Profile-30. *Obstetrics & Gynecology*, 98(2), 258-264.
- Marques, A., Bahamondes, L., Aldrighi, J. M., & Petta, C. A. (2004).** Quality of life in Brazilian women with endometriosis assessed through a medical outcome questionnaire. *The Journal of reproductive medicine*, 49(2), 115-120.

- Mendes, N., & Figueiredo, B. (2012).** Psychological approach to endometriosis: women's pain experience and quality of life improvement. *Psicologia, Saúde e Doenças*, 13(1), 36-48.
- Meurs-Szojda, M. M., Mijatovic, V., Felt-Bersma, R. J. F., & Hompes, P. G. A. (2011).** Irritable bowel syndrome and chronic constipation in patients with endometriosis. *Colorectal Disease*, 13(1), 67-71.
- Missmer, S. A., Tu, F. F., Agarwal, S. K., Chapron, C., Soliman, A. M., Chiuve, S., ... & As-Sanie, S. (2021).** Impact of endometriosis on life-course potential: a narrative review. *International Journal of General Medicine*, 14, 9.
- Moradi, M., Parker, M., Sneddon, A., Lopez, V., & Ellwood, D. (2014).** Impact of endometriosis on women's lives: a qualitative study. *BMC women's health*, 14(1), 1-12.
- Murgia F, Angioni S, D'Alterio MN et al (2021):** Metabolic profile of patients with severe endometriosis: a prospective experimental study. *Reprod Sci* 28(3):728-735. <https://doi.org/10.1007/s43032-020-00370-9>
- Nasyrova, R. F., Sotnikova, L. S., Baystrukova, N. V., Krivoschekova, G. V., Novitsky, V. V., Kupriyanova, I. E., ... & Baykov, A. N. (2011).** Psychoimmune interactions in women of reproductive age with endometriosis. *Bulletin of experimental biology and medicine*, 152(1), 93.
- Nnoaham, K. E., Hummelshoj, L., Webster, P., d'Hooghe, T., de Cicco Nardone, F., de Cicco Nardone, C., ... & Study, W. E. R. F. G. (2011).** Impact of endometriosis on quality of life and work productivity: a multicenter study across ten countries. *Fertility and sterility*, 96(2), 366-373.
- Parazzini F, Esposito G, Tozzi L, Noli S, Bianchi S. 2017;** Epidemiology of endometriosis and its comorbidities. *Eur J Obstet Gynecol Reprod Biol*. 209:3-7.
- Simoens, S., Dunselman, G., Dirksen, C., Hummelshoj, L., Bokor, A., Brandes, I., ... others. (2012).** The burden of endometriosis: costs and quality of life of women with endometriosis and treated in referral centres. *Human Reproduction*, 27(5), 1292-1299.
- Sourial, S., Tempest, N., & Hapangama, D. K. (2014).** Theories on the pathogenesis of endometriosis. *International journal of reproductive medicine*, 2014.
- Tripoli, T. M., Sato, H., Sartori, M. G., de Araujo, F. F., Girão, M. J., & Schor, E. (2011).** Evaluation of quality of life and sexual satisfaction in women suffering from chronic pelvic pain with or without endometriosis. *The journal of sexual medicine*, 8(2), 497-503.
- Turgut, H., & Turgut, S. (2021).** Effect of Edentulism and Oral Quality of Life on Sexual Functions in Men: A Cohort Prospective Study. *Sexual Medicine*, 9(2), 100305.
- Vercellini, P., Meana, M., Hummelshoj, L., Somigliana, E., Viganò, P., & Fedele, L. (2011).** Priorities for endometriosis research: a proposed focus on deep dyspareunia. *Reproductive Sciences*, 18(2), 114-118.
- West, E. (2021).** " It feels like an uppercut to the uterus": exploring the impact painful sex has on women's sexuality due to endometriosis: a thesis presented in partial fulfilment of the requirements for the degree of Master of Science (by thesis) in Psychology at Massey University, Albany, New Zealand (Doctoral dissertation, Massey University).
- Wolman, I. (2014).** Berek and Novak's Gynecology 15th Edition: Lippincott Williams and Wilkins, 2012, 1560 pp, Hardcover, Rs. 2659 on www.flipkart.com, ISBN-139788184736106, ISBN-10818473610X..
- Yoon, Y., Park, M. A., & Park, S. (2021).** Seeking adaptation from uncertainty: Coping strategies of South Korean women with endometriosis. *Research in Nursing & Health*.