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Original Research

Effect of Endometriosis on Women's Daily Functioning, Emotional Well-Being, and Quality of Life: A Cross-Sectional Study

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Abstract

Background: Endometriosis may have diverse impacts on patients' quality of life due to the heterogeneity of its symptoms. The aim of this study was to assess the impact of endometriosis on quality of life based on determinants such as age, education level, place of residence, parenthood status, current disease stage, and disease duration. **Methods**: This study included 100 Polish women with endometriosis. The research tool used to assess the impact of endometriosis on women's quality of life was a newly developed, non-validated questionnaire, administered electronically via Google Forms and distributed through social networks and support groups for women with endometriosis. **Results**: Women under 30 years of age ($p < 0.001$), without children ($p < 0.001$), with stage I endometriosis ($p = 0.03$), and those who had suffered from the disease for less than 5 years ($p = 0.001$) were significantly more likely to report no difficulty conceiving due to endometriosis. Most women (42%) assessed their quality of life as "positive", with 38% reporting it as "good" and 4% as "very good". However, 40% of respondents indicated that their quality of life was "neither good nor bad". Only 16% of reported "poor" quality of life, and 2% reported "very poor" quality of life. **Conclusions**: Endometriosis is a condition that affects all aspects of a woman's life. Our findings indicate that its negative effects are complex and multidimensional, with most participants reporting sadness and depressive feelings rather than happiness, and nearly half reporting dissatisfaction with their sleep quality. Although validated instruments offer greater objectivity, they are often time consuming. Non-validated instruments, such as global assessments, are easier to administer but may be more subjective.

Keywords: endometriosis; quality of life; pain

1. Introduction

Endometriosis is a chronic, inflammatory, estrogen-dependent disease. Its hallmarks are the presence of active epithelium and/or endometrium-like lining outside the uterine cavity [1,2]. The severity and clinical presentation of endometriosis vary widely. The most common foci are in the ovaries, fallopian tubes, rectouterine pouch (pouch of Douglas), and abdominal peritoneum. In cases of deeply infiltrating endometriosis, lesions may also develop in the bladder, intestines, and subperitoneum. Less commonly, they occur in locations such as the diaphragm and lungs [3,4].

Endometriosis is estimated to affect 10–15% of women of reproductive age and 2–5% of postmenopausal women, representing approximately 176 million women worldwide [5–9]. It is detected in up to 50% of women undergoing infertility treatment [5]. The symptoms of endometriosis are varied and non-specific; hence, they are often mistaken with symptoms of other conditions. The most commonly reported symptoms include painful menstruation, heavy or irregular menstrual bleeding, and pelvic pain [1]. The condition may also be accompanied by pain during intercourse, pain or bleeding during urination and defecation, painful rectal bleeding, infertility, cyclic chest pain, coughing, or hemoptysis [2,4]. However, endometriotic lesions do not always produce clinical symptoms [5]. One of the challenges in diagnosing endometriosis is its undetermined etiopathology [10–13]. Due to the complex nature of its symptoms and the lack of specific biomarkers, the average time to diagnosis is 9.6 years [14], significantly impacting the quality of life of affected women [11–13,15].

Chronic pain, discomfort, and other symptoms significantly limit patients' daily functioning, affecting their professional activities, social and family relationships, and emotional well-being [11–13]. Several validated tools are available to assess the quality of life of women with endometriosis across various domains: Short Form 36 (SF-36), Short Form 12 (SF-12), Nottingham Health Profile (NHP), World Health Organization Quality of Life Assessment-BREF (WHOQOL-BREF), and Endometriosis Health Profile-30 (EHP-30) [16–20]. Therefore, this study aimed to assess the impact of endometriosis on the quality of life of Polish women, based on determinants identified through a comprehensive literature review: age, educa-

Table 1. Demographic characteristics of the study group.

		n = 100 (%)
Age	<30 years	50
	≥30 years	50
Education levels	Primary	1
	Vocational	8
	Secondary	27
	Higher	64
Place of residence	Rural	25
	City with population <10 thousand	18
	City with population of 10–100 thousand	23
	City with population of 100–500 thousand	14
	City with population >500 thousand	20
Marital status	Marriage	47
	Partnership	31
	Not in a partnership/marriage	22
Professional activity	Working	89
	Not working	11
Parenthood	No children	64
	Has children	34
	Currently pregnant	2

tion, place of residence, parenthood, current disease stage, and disease duration. Considering the high variability and severity of endometriosis symptoms across different populations, the use of a newly developed questionnaire may enable the identification of previously unrecognized factors that influence the quality of life of women with endometriosis in Poland.

2. Materials and Methods

This study was conducted in a cohort of 100 Polish women with endometriosis. Participants voluntarily completed the questionnaire after being informed that their responses would remain anonymous and used exclusively for scientific purposes. The study was conducted between April and October 2023. The inclusion criteria included female sex and a confirmed diagnosis of endometriosis.

The research tool used to assess the impact of endometriosis on women's quality of life was a newly developed, unvalidated questionnaire. The questionnaire was written in colloquial language understandable to all patients and was administered electronically via Google Forms (https://forms.gle/QgygjJjU4x5wAvB37). It was distributed through social networks and support groups for women with endometriosis. Participation was voluntary, anonymous, and conducted entirely online. The use of an unvalidated instrument may limit the generalizability and comparability of the findings with those of studies that use standardized Quality of Life (QoL) measures. This limitation is acknowledged in the Discussion section and should be considered when interpreting the results.

Respondents answered closed-ended questions, including single-choice and multiple-choice items, including one question that allowed a typed response for age. The first section of the questionnaire collected basic demographic information, including age, marital status, place of residence, education level, and type of work performed. The subsequent section gathered information on disease stage (stage I, II, III, or IV; this was not subject to secondary verification), disease duration (1–5 years, 6–10 years, or >10 years) and any accompanying pain symptoms.

The final section of the survey included specific questions designed to assess quality of life. The study examined various aspects of daily life, including concomitant symptoms and complaints, treatment methods and their effectiveness, fertility and pregnancy complications, daily activities, physical activity, professional work, financial difficulties, sexual life, sleep, relationships with loved ones, fulfillment of plans/dreams/goals, fatigue, as well as positive and negative emotions. A comparative analysis of the respondents was conducted based on age, education, place of residence, parenthood status, disease severity classification, and disease duration. Correlations between variables were tested using the Chi-square (χ^2) test. This test compares the observed frequencies with the frequencies expected under the assumption of independence, helping to test whether the two variables are associated. Data analysis was performed using Statistica (Cloud Software Group, Inc., 2023; Fort Lauderdale, FL, USA, version 14), and Microsoft Excel (Microsoft Office 2019; Redmond, WA, USA, version 2025). A $p < 0.05$ was considered statistically significant.

Table 2. Endometriosis stage and duration in the study population.

Endometriosis	Stage and time	n = 100 (%)
Stage of endometriosis at the time of diagnosis	Stage I	35
	Stage II	30
	Stage III	22
	Stage IV	13
Current stage of endometriosis	Stage I	37
	Stage II	33
	Stage III	20
	Stage IV	10
Duration of disease	1–5 years	66
	5–10 years	14
	Over 10 years	20

3. Results

The study group consisted of women with endometriosis aged 18 to 55 years.

3.1 Characteristics of the Study Group

Most of the participants ranged between 20 and 30 years old, with a mean age of 29.5 years (±7.99). Regarding education, the largest proportion (64%) had completed higher education, followed by those with secondary education (27%). Among the respondents, 25% resided in rural areas, while the majority (75%) resided in urban areas. In terms of marital status, 47% were married, 31% were in a civil partnership, and 22% were single, indicating they were not in a partnership or marriage. The response option "widow" was included, but no respondents selected it. Participants were asked about their professional activities. The majority (89%) reported they were professionally active, while 11% indicated they did not work. In the study group, 64% of women had no children, 34% had children, and 2% were currently pregnant. The demographic characteristics of the study group are presented in Table 1.

3.2 Endometriosis

The majority of respondents (71%) answered "yes" to the question "Before your diagnosis, had you heard about the disease called endometriosis?". In contrast, 29% of women were unaware of the condition prior to their diagnosis. At the time of diagnosis, 65% of respondents had less advanced endometriosis: 35% were in stage I and 30% were in stage II. Stage III endometriosis was observed in 22% of patients, and 13% were diagnosed with stage IV disease. When asked about their current stage of endometriosis, 37% of respondents reported stage I, 33% reported stage II, 20% reported stage III, and 10% reported stage IV. The duration of the disease varied among respondents. The majority (66%) had experienced the disease for 1–5 years, 14% for 5–10 years, and 20% for more than 10 years. Information on the stage of endometriosis at the time of diagnosis, the current stage, and the duration of the disease are presented in Table 2.

Occurrence of Endometriosis Symptoms

Participants were asked about their pain symptoms and complaints. The most frequently reported symptom was severe lower abdominal pain during menstruation (81%). More than half of the respondents experienced lower back pain (65%) and pain during intercourse (62%). Less commonly reported symptoms included pain during bowel movements (44%), sciatica-like pain (35%), and pain during urination (14%).

Individuals over 30 years of age were significantly more likely to report pain during bowel movements ($p = 0.02$) and constipation ($p = 0.01$). Those with lower education levels were more likely to report pain during urination ($p = 0.02$) and defecation ($p = 0.003$). Women from smaller towns were significantly more likely to report pain during intercourse ($p = 0.01$), while others more frequently reported sciatica-like pain ($p = 0.03$).

Women without children more frequently reported severe lower abdominal pain during menstruation ($p = 0.001$) and during urination ($p = 0.01$). Fewer respondents with stage I disease reported pain during defecation ($p = 0.01$).

3.3 Effect of Endometriosis on Women's Daily Functioning

3.3.1 Have You Had any Problems Conceiving That Could Have Been Caused by Endometriosis?

Infertility due to endometriosis was reported by 42% of the women, while 20% reported no problem conceiving, and 38% had no plans to become pregnant. Women under 30 years of age ($p < 0.001$), without children ($p < 0.001$), with stage I endometriosis ($p = 0.03$), and those who had suffered from the disease for less than 5 years ($p = 0.001$) were significantly more likely to report no difficulty conceiving due to endometriosis. Correlations between "Problems conceiving due to endometriosis" and variables including age, education, place of residence, parity, disease stage, and disease duration are presented in Table 3.

3.3.2 Do You Experience a Lack of Societal Acceptance due to Infertility?

Respondents were asked whether they experienced a lack of societal acceptance due to infertility: 47% answered "not at all", 22% answered "somewhat", 17% answered "moderately", 9% answered "very much", and 3% answered "fully". The analysis demonstrated that women without children reported significantly higher levels of perceived societal lack of acceptance due to infertility ($p = 0.03$). Correlations between "Perceived societal lack of acceptance due to infertility" and study variables are presented in Table 4.

Table 3. Correlations between "Problems conceiving due to endometriosis" and study variables.

		Problems conceiving due to endometriosis			χ^2	p-value
		Yes	No	Not applicable		
I. Age	<30 years	13 (26%)	6 (12%)	31 (62%)	25.92	<0.001
	≥30 years	29 (58%)	14 (28%)	7 (14%)		
II. Education levels	Higher	29 (45.31%)	11 (17.19%)	24 (37.50%)	1.17	0.56
	Other	13 (36.11%)	9 (25.00%)	14 (38.89%)		
III. Place of residence	<10,000	23 (53.49%)	8 (18.60%)	12 (27.91%)	4.5	0.11
	≥10,000	19 (33.33%)	12 (21.05%)	26 (45.61%)		
IV. Parenthood (n = 98)	Yes	10 (29.41%)	19 (55.88%)	5 (14.71%)	44	<0.001
	No	30 (46.88%)	1 (1.56%)	33 (51.56%)		
V. Current stage of endometriosis	I	10 (27.03%)	6 (16.22%)	21 (56.76%)	11.04	0.03
	II	18 (54.55%)	5 (15.15%)	10 (30.30%)		
	III/IV	14 (46.67%)	9 (30.00%)	7 (23.33%)		
VI. Duration of disease	<5 years	21 (31.82%)	12 (18.18%)	33 (50.00%)	13.47	0.001
	≥5 years	21 (61.76%)	8 (23.53%)	5 (14.71%)		

Table 4. Correlations between "Perceived societal lack of acceptance due to the infertility" and study variables.

		Perceived societal lack of acceptance due to infertility					χ^2	p-value
		"Not at all"	"Somewhat"	"Moderately"	"Very much"	"Fully"		
I. Age	<30 years	7 (14%)	19 (38%)	6 (12%)	16 (32%)	2 (4%)	3.59	0.46
	≥30 years	8 (16%)	12 (24%)	9 (18%)	16 (32%)	5 (10%)		
II. Education levels	Higher	9 (14.06%)	22 (34.38%)	9 (14.06%)	20 (31.25%)	4 (6.25%)	1.05	0.90
	Other	6 (16.67%)	9 (25.00%)	6 (16.67%)	12 (33.33%)	3 (8.33%)		
III. Place of residence	<10,000	5 (11.63%)	18 (41.86%)	3 (6.98%)	14 (32.56%)	3 (6.98%)	6.97	0.14
	≥10,000	10 (17.54%)	13 (22.81%)	12 (21.05%)	18 (31.58%)	4 (7.02%)		
IV. Parenthood (n = 98)	Yes	10 (29.41%)	7 (20.59%)	7 (20.59%)	8 (23.53%)	2 (5.88%)	11.12	0.03
	No	5 (7.81%)	24 (37.50%)	7 (10.94%)	23 (35.94%)	5 (7.81%)		
V. Current stage of endometriosis	I	6 (16.22%)	11 (29.73%)	7 (18.92%)	10 (27.03%)	3 (8.11%)	3.94	0.86
	II	3 (9.09%)	13 (39.39%)	4 (12.12%)	11 (33.33%)	2 (6.06%)		
	III/IV	6 (20.00%)	7 (23.33%)	4 (13.33%)	11 (36.67%)	2 (6.67%)		
VI. Duration of disease	<5 years	10 (15.15%)	23 (34.85%)	9 (13.64%)	20 (30.30%)	4 (6.06%)	1.62	0.81
	≥5 years	5 (14.71%)	8 (23.53%)	6 (17.65%)	12 (35.29%)	3 (8.82%)		

3.3.3 Does Your Health Condition Prevent You From Performing Daily Activities?

Regarding the impact of endometriosis on daily activities, 47% of respondents indicated that endometriosis "somewhat" affected their ability to perform activities of daily living. In comparison, 16%, 10%, 22%, and 5% of the respondents answered "not at all", "moderately", "very much", and "fully", respectively. The study showed that women over the age of 30 (p = 0.04) and those with less education (p = 0.01) gave a significantly higher rating for the impact of the condition on performing of daily activities. The correlations between the "Influence of health condition on activities of daily living" and the study variables are presented in Table 5.

3.3.4 Does Your Health Condition Prevent You From Engaging in Physical Activity?

Regarding whether endometriosis prevented them from engaging in physical activity, 15%, 37%, 17%, 29%, and 2% of the respondents responded "not at all", "somewhat", "moderately", "very much", and "fully", respectively. In this study, individuals with less education levels (p = 0.003) reported a significantly higher impact of endometriosis on their ability to engage in physical activity. The correlations between the "Influence of health status on physical activity" and the study variables are presented in Table 6.

3.3.5 Does Having the Disease Create Difficulties in Obtaining a Job?

Participants were asked to rate the extent to which the disease interfered with their ability to obtain employ-

Table 5. Correlations between "Influence of health condition on activities of daily living" and study variables.

		Influence of health condition on activities of daily living					χ^2	p-value
		"Not at all"	"Somewhat"	"Moderately"	"Very much"	"Fully"		
I. Age	<30 years	10 (20%)	29 (58%)	3 (6%)	6 (12%)	2 (4%)	1.17	0.04
	≥30 years	6 (12%)	18 (36%)	7 (14%)	16 (32%)	3 (6%)		
II. Education levels	Higher	11 (17.19%)	35 (54.69%)	7 (10.94%)	11 (17.19%)	0 (0%)	14.69	0.01
	Other	5 (13.89%)	12 (33.33%)	3 (8.33%)	11 (30.56%)	5 (13.89%)		
III. Place of residence	<10,000	7 (16.28%)	21 (48.84%)	5 (11.63%)	9 (20.93%)	1 (2.33%)	1.48	0.83
	≥10,000	9 (15.79%)	26 (45.61%)	5 (8.77%)	13 (22.81%)	4 (7.02%)		
IV. Parenthood (n = 98)	Yes	5 (14.71%)	15 (44.12%)	5 (14.71%)	6 (17.65%)	3 (8.82%)	2.84	0.58
	No	11 (17.19%)	31 (48.44%)	5 (7.81%)	15 (23.44%)	2 (3.13%)		
V. Current stage of endometriosis	I	7 (18.92%)	18 (48.65%)	2 (5.41%)	9 (24.32%)	1 (2.70%)	3.44	0.90
	II	4 (12.12%)	17 (51.52%)	4 (12.12%)	6 (18.18%)	2 (6.06%)		
	III/IV	5 (16.67%)	12 (40.00%)	4 (13.33%)	7 (23.33%)	2 (6.67%)		
VI. Duration of disease	<5 years	13 (19.70%)	31 (46.97%)	6 (9.09%)	12 (18.18%)	4 (6.06%)	3.70	0.45
	≥5 years	3 (8.82%)	16 (47.06%)	4 (11.76%)	10 (29.41%)	1 (2.94%)		

Table 6. Correlations between "Influence of health status on physical activity" and study variables.

		Influence of health status on physical activity					χ^2	p-value
		"Not at all"	"Somewhat"	"Moderately"	"Very much"	"Fully"		
I. Age	<30 years	9 (18%)	24 (48%)	7 (14%)	9 (18%)	1 (2%)	8.74	0.07
	≥30 years	6 (12%)	13 (26%)	10 (20%)	20 (40%)	1 (2%)		
II. Education levels	Higher	11 (17.19%)	31 (48.44%)	10 (15.63%)	11 (17.19%)	1 (1.56%)	16.18	0.003
	Other	4 (11.11%)	6 (16.67%)	7 (19.44%)	18 (50.00%)	1 (2.78%)		
III. Place of residence	<10,000	8 (18.60%)	15 (34.88%)	5 (11.63%)	15 (34.88%)	0 (0%)	5.21	0.27
	≥10,000	7 (12.28%)	22 (38.60%)	12 (21.05%)	14 (24.56%)	2 (3.51%)		
IV. Parenthood (n = 98)	Yes	7 (20.59%)	11 (32.35%)	6 (17.65%)	10 (29.41%)	0 (0%)	3.21	0.52
	No	8 (12.50%)	26 (40.63%)	9 (14.06%)	19 (29.69%)	2 (3.13%)		
V. Current stage of endometriosis	I	7 (18.92%)	14 (37.84%)	7 (18.92%)	9 (24.32%)	0 (0%)	10.08	0.26
	II	3 (9.09%)	17 (51.52%)	4 (12.12%)	8 (24.24%)	1 (3.03%)		
	III/IV	5 (16.67%)	6 (20.00%)	6 (20.00%)	12 (40.00%)	1 (3.33%)		
VI. Duration of disease	<5 years	11 (16.67%)	28 (42.42%)	7 (10.61%)	19 (28.79%)	1 (1.52%)	6.59	0.16
	≥5 years	4 (11.76%)	9 (26.47%)	10 (29.41%)	10 (29.41%)	1 (2.94%)		

Table 7. Correlations between "Disease-related difficulty in obtaining a job" and study variables.

		Disease-related difficulty in obtaining a job						χ^2	p-value
		"Not applicable"	"Not at all"	"A little"	"Moderately"	"Very much"	"Fully"		
I. Age	<30 years	13 (26%)	15 (30%)	11 (22%)	3 (6%)	7 (14%)	1 (2%)	4.06	0.54
	≥30 years	6 (12%)	18 (36%)	10 (20%)	5 (10%)	9 (18%)	2 (4%)		
II. Education levels	Higher	13 (20.31%)	23 (35.94%)	15 (23.44%)	6 (9.38%)	7 (10.94%)	0 (0%)	10.44	0.06
	Other	6 (16.67%)	10 (27.78%)	6 (16.67%)	2 (5.56%)	9 (25.00%)	3 (8.33%)		
III. Place of residence	<10,000	4 (9.30%)	14 (32.56%)	9 (20.93%)	3 (6.98%)	10 (23.26%)	3 (6.98%)	11.68	0.04
	≥10,000	15 (26.32%)	19 (33.33%)	12 (21.05%)	5 (8.77%)	6 (10.53%)	0 (0%)		
IV. Parenthood (n = 98)	Yes	6 (17.65%)	16 (47.06%)	3 (8.82%)	4 (11.76%)	3 (8.82%)	2 (5.88%)	10.75	0.06
	No	12 (18.75%)	17 (26.56%)	18 (28.13%)	4 (6.25%)	12 (18.75%)	1 (1.56%)		
V. Current stage of endometriosis	I	10 (27.03%)	10 (27.03%)	7 (18.92%)	2 (5.41%)	6 (16.22%)	2 (5.41%)	9.44	0.49
	II	5 (15.15%)	12 (36.36%)	10 (30.33%)	2 (6.06%)	4 (12.12%)	0 (0%)		
	III/IV	4 (13.33%)	11 (36.67%)	4 (13.33%)	4 (13.33%)	6 (20.00%)	1 (3.33%)		
VI. Duration of disease	<5 years	14 (21.21%)	22 (33.33%)	15 (22.73%)	4 (6.06%)	9 (13.64%)	2 (3.03%)	2.33	0.80
	≥5 years	5 (14.71%)	11 (32.35%)	6 (17.65%)	4 (11.76%)	7 (20.59%)	1 (2.94%)		

Table 8. Correlations between "Impact of disease-related costs on daily financial problems" and study variables.

		Impact of disease-related costs on daily financial problems					χ^2	*p*-value
		"Not at all"	"A little"	"Moderately"	"To a great extent"	"To a very great extent"		
I. Age	<30 years	14 (28%)	15 (30%)	14 (28%)	6 (12%)	1 (2%)	4.86	0.30
	≥30 years	10 (20%)	19 (38%)	8 (16%)	10 (20%)	3 (6%)		
II. Education levels	Higher	15 (23.44%)	22 (34.38%)	16 (25.00%)	10 (15.63%)	1 (1.56%)	3.33	0.50
	Other	9 (25.00%)	12 (33.33%)	6 (16.67%)	6 (16.67%)	3 (8.33%)		
III. Place of residence	<10,000	6 (13.95%)	15 (34.88%)	10 (23.26%)	10 (23.26%)	2 (4.65%)	5.98	0.20
	≥10,000	18 (31.58%)	19 (33.33%)	12 (21.05%)	6 (10.53%)	2 (3.51%)		
IV. Parenthood (n = 98)	Yes	11 (32.35%)	11 (32.35%)	7 (20.59%)	3 (8.82%)	2 (5.88%)	3.73	0.44
	No	13 (20.31%)	21 (32.81%)	15 (23.44%)	13 (20.31%)	2 (3.13%)		
V. Current stage of endometriosis	I	14 (37.84%)	8 (21.62%)	10 (27.03%)	4 (10.81%)	1 (2.70%)	16.87	0.03
	II	4 (12.12%)	17 (51.52%)	5 (15.15%)	7 (21.21%)	0 (0%)		
	III/IV	6 (20.00%)	9 (30.00%)	7 (23.33%)	5 (16.67%)	3 (10.00%)		
VI. Duration of disease	<5 years	18 (27.27%)	22 (33.33%)	16 (24.24%)	7 (10.61%)	3 (4.55%)	4.86	0.30
	≥5 years	6 (17.65%)	12 (35.29%)	6 (17.65%)	9 (26.47%)	1 (2.94%)		

Table 9. Correlations between "Influence of endometriosis on realization of plans, dreams, and life goals" and study variables.

		Influence of endometriosis on realization of plans, dreams, and life goals					χ^2	*p*-value
		"Not at all"	"A little"	"Moderately"	"Very Much"	"Fully"		
I. Age	<30 years	7 (14%)	19 (38%)	6 (12%)	16 (32%)	2 (4%)	3.59	0.46
	≥30 years	8 (16%)	12 (24%)	9 (18%)	16 (32%)	5 (10%)		
II. Education levels	Higher	9 (14.06%)	22 (34.38%)	9 (14.06%)	20 (31.25%)	4 (6.25%)	1.05	0.90
	Other	6 (16.67%)	9 (25.00%)	6 (16.67%)	12 (33.33%)	3 (8.33%)		
III. Place of residence	<10,000	5 (11.63%)	18 (41.86%)	3 (6.98%)	14 (32.56%)	3 (6.98%)	6.97	0.14
	≥10,000	10 (17.54%)	13 (22.81%)	12 (21.05%)	18 (31.58%)	4 (7.02%)		
IV. Parenthood (n = 98)	Yes	10 (29.41%)	7 (20.59%)	7 (20.59%)	8 (23.53%)	2 (5.88%)	11.12	0.03
	No	5 (7.81%)	24 (37.50%)	7 (10.94%)	23 (35.94%)	5 (7.81%)		
V. Current stage of endometriosis	I	6 (16.22%)	11 (29.73%)	7 (18.92%)	10 (27.03%)	3 (8.11%)	3.94	0.86
	II	3 (9.09%)	13 (39.39%)	4 (12.12%)	11 (33.33%)	2 (6.06%)		
	III/IV	6 (20.00%)	7 (23.33%)	4 (13.33%)	11 (36.67%)	2 (6.67%)		
VI. Duration of disease	<5 years	10 (15.15%)	23 (34.85%)	9 (13.64%)	20 (30.30%)	4 (6.06%)	1.62	0.81
	≥5 years	5 (14.71%)	8 (23.53%)	6 (17.65%)	12 (35.29%)	3 (8.82%)		

ment. According to 19% of the respondents, endometriosis had no impact on employment ("not applicable"), 33% indicated "not at all", while 21% answered "a little", 8% answered "moderately", 16% answered "very much", and 3% of the women said the disease hinders their ability to work "fully". Participants from smaller cities reported significantly higher difficulty in obtaining employment due to the disease ($p = 0.04$). The correlations between "Disease-related difficulties in obtaining a job" and the study variables are presented in Table 7.

3.3.6 Have Disease-Related Costs Caused Financial Problems in Your Daily Life?

The participants were asked about the impact of disease-related costs on their financial situation. According to 24% of the women, the costs disease-associated did not affect their financial situation (answered "not at all"), while 34% answered "a little", 22% answered "moderately", 16% answered "to a great extent", and 4% answered "to a very great extent". The study found that a higher disease severity ($p = 0.03$) was associated with a higher rating of the impact of disease-related costs on financial problems in daily life. The correlations between the "Influence of disease-related costs on financial problems in daily life" and the study variables are presented in Table 8.

3.3.7 Do You Believe That Endometriosis has Hinderes the Achievement of Your Plans, Dreams, and Life Goals?

The impact of endometriosis on preventing the realization of plans, dreams, and goals was examined in this group of women: 31% responded "a little", 15% responded "moderately", 32% responded "very much", and 7% responded "fully". Additionally, 15% stated that the disease did not prevent them from achieving their goals (answered "not at

Table 10. Correlations between "Satisfaction with sleep quality" and study variables.

		Satisfaction with sleep quality					χ^2	*p*-value
		"Very dissatisfied"	"Dissatisfied"	"Neither satisfied nor dissatisfied"	"Satisfied"	"Delighted"		
I. Age	<30 years	3 (6%)	15 (30%)	17 (34%)	15 (30%)	0 (0%)	8.93	0.06
	≥30 years	6 (12%)	25 (50%)	10 (20%)	8 (16%)	1 (2%)		
II. Education levels	Higher	5 (7.81%)	23 (35.94%)	17 (26.56%)	18 (28.13%)	1 (1.56%)	4.09	0.39
	Other	4 (11.11%)	17 (47.22%)	10 (27.78%)	5 (13.89%)	0 (0%)		
III. Place of residence	<10,000	3 (6.98%)	20 (46.51%)	10 (23.26%)	10 (23.26%)	0 (0%)	2.67	0.61
	≥10,000	6 (10.53%)	20 (35.09%)	17 (29.82%)	13 (22.81%)	1 (1.75%)		
IV. Parenthood (n = 98)	Yes	7 (20.59%)	13 (38.24%)	7 (20.59%)	6 (17.65%)	1 (2.94%)	10.65	0.03
	No	2 (3.13%)	26 (40.63%)	19 (29.69%)	17 (26.56%)	0 (0%)		
V. Current stage of endometriosis	I	2 (5.41%)	12 (32.43%)	13 (35.14%)	9 (24.32%)	1 (2.70%)	5.78	0.67
	II	3 (9.09%)	14 (42.42%)	8 (24.24%)	8 (24.24%)	0 (0%)		
	III/IV	4 (13.33%)	14 (46.67%)	6 (20.00%)	6 (20.00%)	0 (0%)		
VI. Duration of disease	<5 years	4 (6.06%)	21 (31.82%)	20 (30.30%)	20 (30.30%)	1 (1.52%)	11.78	0.02
	≥5 years	5 (14.71%)	19 (55.88%)	7 (20.59%)	3 (8.82%)	0 (0%)		

Table 11. Correlations between "Satisfaction with sexual life" and study variables.

		Satisfaction with sexual life						χ^2	*p*-value
		"Not applicable"	"Very dissatisfied"	"Dissatisfied"	"Neither satisfied nor dissatisfied"	"Satisfied"	"Delighted"		
I. Age	<30 years	4 (8%)	2 (4%)	10 (20%)	16 (32%)	14 (28%)	4 (8%)	5.29	0.38
	≥30 years	2 (4%)	6 (12%)	16 (32%)	13 (26%)	10 (20%)	3 (6%)		
II. Education levels	Higher	1 (1.56%)	5 (7.81%)	14 (21.88%)	21 (32.81%)	17 (26.56%)	6 (9.38%)	9.92	0.08
	Other	5 (13.89%)	3 (8.33%)	12 (33.33%)	8 (22.22%)	7 (19.44%)	1 (2.78%)		
III. Place of residence	<10,000	2 (4.65%)	3 (6.98%)	12 (27.91%)	13 (30.23%)	11 (25.58%)	2 (4.65%)	1.18	0.95
	≥10,000	4 (7.02%)	5 (8.77%)	14 (24.56%)	16 (28.07%)	13 (22.81%)	5 (8.77%)		
IV. Parenthood (n = 98)	Yes	2 (5.88%)	6 (17.65%)	6 (17.65%)	9 (26.47%)	7 (20.59%)	4 (11.76%)	8.63	0.12
	No	4 (6.25%)	2 (3.13%)	19 (29.69%)	19 (29.69%)	17 (26.56%)	3 (4.69%)		
V. Current stage of endometriosis	I	4 (10.81%)	1 (2.70%)	7 (18.92%)	13 (35.14%)	8 (21.62%)	4 (10.81%)	11.54	0.32
	II	1 (3.03%)	4 (12.12%)	10 (30.30%)	6 (18.18%)	11 (33.33%)	1 (3.03%)		
	III/IV	1 (3.33%)	3 (10.00%)	9 (30.00%)	10 (33.33%)	5 (16.67%)	2 (6.67%)		
VI. Duration of disease	<5 years	5 (7.58%)	2 (3.03%)	16 (24.24%)	21 (31.82%)	17 (25.76%)	5 (7.58%)	7.64	0.18
	≥5 years	1 (2.94%)	6 (17.65%)	10 (29.41%)	8 (23.53%)	7 (20.59%)	2 (5.88%)		

all"). The respondents without children (*p* = 0.03) were significantly more likely to report a higher impact of endometriosis on preventing the realization of life goals. The correlations between the "Influence of endometriosis on realization of plans, dreams, and life goals" and the study variables are presented in Table 9.

3.3.8 Are You Satisfied With Your Sleep Quality?

The majority of the study participants with endometriosis reported being "dissatisfied" with their sleep quality (40%), 27% were "neither satisfied nor dissatisfied", 23% reported being "satisfied", 9% admitted to being "very dissatisfied", and 1% were "delighted" with their sleep quality. Women without children (*p* = 0.03) and those who had suffered from endometriosis for more than 5 years (*p* = 0.02) had significantly higher sleep quality satisfaction scores. The correlations between "Satisfaction with sleep quality" and the study variables are presented in Table 10.

3.3.9 Are You Satisfied With the Quality of Your Sexual Life?

The impact of endometriosis on the quality of sexual life was also analyzed. The majority of patients were neither satisfied nor dissatisfied (29%). The second-largest group comprised patients who were dissatisfied with the quality of their sexual lives (26%), while 24% reported being satisfied, 6% were not sexually active, and 8% were "very dissatisfied". No statistically significant correlations

Table 12. Correlations between "Painkiller use" and study variables.

		Painkiller use					χ^2	*p*-value
		"Do not use"	"Very rarely"	"Rarely"	"Often"	"Very often"		
I. Age	<30 years	1 (2%)	3 (6%)	10 (20%)	21 (42%)	15 (30%)	7.24	0.12
	≥30 years	7 (14%)	1 (2%)	10 (20%)	15 (30%)	17 (34%)		
II. Education levels	Higher	7 (10.94%)	3 (4.69%)	13 (20.31%)	24 (37.50%)	17 (26.56%)	4.19	0.38
	Other	1 (2.78%)	1 (2.78%)	7 (19.44%)	12 (33.33%)	15 (41.67%)		
III. Place of residence	<10,000	1 (2.33%)	3 (6.98%)	8 (18.60%)	15 (34.88%)	16 (37.21%)	5.95	0.21
	≥10,000	7 (12.28%)	1 (1.75%)	12 (21.05%)	21 (36.84%)	16 (28.07%)		
IV. Parenthood (n = 98)	Yes	7 (20.59%)	1 (2.94%)	9 (26.47%)	8 (23.53%)	9 (26.47%)	13.49	0.01
	No	1 (1.56%)	3 (4.69%)	11 (17.19%)	27 (42.19%)	22 (34.38%)		
V. Current stage of endometriosis	I	4 (10.81%)	2 (5.41%)	9 (24.32%)	14 (37.84%)	8 (21.62%)	5.42	0.71
	II	1 (3.03%)	1 (3.03%)	5 (15.15%)	13 (39.39%)	13 (39.39%)		
	III/IV	3 (10.00%)	1 (3.33%)	6 (20.00%)	9 (30.00%)	11 (36.67%)		
VI. Duration of disease	<5 years	3 (4.55%)	2 (3.03%)	14 (21.21%)	25 (37.88%)	22 (33.33%)	3.58	0.47
	≥5 years	5 (14.71%)	2 (5.88%)	6 (17.65%)	11 (32.35%)	10 (29.41%)		

Table 13. Correlations between "Feeling sad and depressed" and study variables.

		Feeling sad and depressed					χ^2	*p*-value
		"Never"	"Rarely"	"Occasionally"	"Frequently"	"Always"		
I. Age	<30 years	1 (2%)	15 (30%)	13 (26%)	18 (36%)	3 (6%)	5.21	0.27
	≥30 years	3 (6%)	7 (14%)	12 (24%)	25 (50%)	3 (6%)		
II. Education levels	Higher	2 (3.13%)	14 (21.88%)	20 (31.25%)	24 (37.50%)	4 (6.25%)	4.61	0.33
	Other	2 (5.56%)	8 (22.22%)	5 (13.89%)	19 (52.78%)	2 (5.56%)		
III. Place of residence	<10,000	0 (0%)	11 (25.58%)	11 (25.58%)	19 (44.19%)	2 (4.65%)	5.20	0.27
	≥10,000	4 (7.02%)	11 (19.30%)	14 (24.56%)	24 (42.11%)	4 (7.02%)		
IV. Parenthood (n = 98)	Yes	3 (8.82%)	5 (14.71%)	6 (17.65%)	18 (52.94%)	2 (5.88%)	6.45	0.17
	No	1 (1.56%)	17 (26.56%)	18 (28.13%)	24 (37.50%)	4 (6.25%)		
V. Current stage of endometriosis	I	3 (8.11%)	7 (18.92%)	8 (21.62%)	16 (43.24%)	3 (8.11%)	5.92	0.66
	II	0 (0%)	9 (27.27%)	8 (24.24%)	15 (45.45%)	1 (3.03%)		
	III/IV	1 (3.33%)	6 (20.00%)	9 (30.00%)	12 (40.00%)	2 (6.67%)		
VI. Duration of disease	<5 years	2 (3.03%)	16 (24.24%)	18 (27.27%)	26 (39.39%)	4 (6.06%)	1.88	0.76
	≥5 years	2 (5.88%)	6 (17.65%)	7 (20.59%)	17 (50.00%)	2 (5.88%)		

were observed between sexual life satisfaction and the study variables (Table 11).

3.3.10 How Frequently do You Take Painkillers to Manage Symptoms Associated With Endometriosis?

The majority of women in this study (92%) reported using painkillers. The options "very rarely", "rarely", "often", and "very often" were selected by 4%, 20%, 36%, and 32% of the respondents, respectively. The remaining 8% of the respondents did not use painkillers. The women without children exhibited a significantly higher ($p = 0.01$) frequency of painkiller use. The correlations between painkiller use and the study variables are presented in Table 12.

3.4 Effect of Endometriosis on Emotions

3.4.1 How Often do You Feel Sad or Depressed?

When asked whether they ever feel sad or depressed, 4% of women responded "never", 22% responded "rarely", 25% responded "occasionally", 43% answered "frequently", and 6% responded "always". No significant correlations were found between the frequency of sadness and depression and age, education, place of residence, parenthood, disease stage, or disease duration (Table 13).

3.4.2 How Often do You Feel Joy or Happiness?

A minor proportion of the participants (1%) reported that they "never" experience joy and happiness, while the remaining 99% experienced positive emotions with varying frequency: 28% responded "rarely", 34% answered "oc-

Table 14. Correlations between "Experience of joy and happiness" and study variables.

		Experience of joy and happiness					χ^2	p-value
		"Never"	"Rarely"	"Occasionally"	"Frequently"	"Always"		
I. Age	<30 years	0 (0%)	10 (20%)	21 (42%)	19 (38%)	0 (0%)	7.10	0.13
	≥30 years	1 (2%)	18 (36%)	13 (26%)	17 (34%)	1 (2%)		
II. Education levels	Higher	1 (1.56%)	16 (25.00%)	22 (34.38%)	24 (37.50%)	1 (1.56%)	2.46	0.65
	Other	0 (0%)	12 (33.33%)	12 (33.33%)	12 (33.33%)	0 (0%)		
III. Place of residence	<10,000	1 (2.33%)	14 (32.56%)	14 (32.56%)	14 (32.56%)	0 (0%)	3.66	0.45
	≥10,000	0 (0%)	14 (24.56%)	20 (35.09%)	22 (38.60%)	1 (1.75%)		
IV. Parenthood (n = 98)	Yes	0 (0%)	12 (35.29%)	11 (32.35%)	10 (29.41%)	1 (2.94%)	4.39	0.36
	No	1 (1.56%)	16 (25.00%)	22 (34.38%)	25 (39.06%)	0 (0%)		
V. Current stage of endometriosis	I	0 (0%)	7 (18.92%)	14 (37.84%)	15 (40.54%)	1 (2.70%)	9.01	0.34
	II	0 (0%)	13 (39.39%)	8 (24.24%)	12 (36.36%)	0 (0%)		
	III/IV	1 (3.33%)	8 (26.67%)	12 (40.00%)	9 (30.00%)	0 (0%)		
VI. Duration of disease	<5 years	0 (0%)	16 (24.24%)	22 (33.33%)	28 (42.42%)	0 (0%)	7.68	0.10
	≥5 years	1 (2.94%)	12 (35.29%)	12 (35.29%)	8 (23.53%)	1 (2.94%)		

Table 15. Quality of life responses based on participant characteristics.

		Very bad	Bad	Neither good nor bad	Good	Very good	χ^2	p-value
I. Age	<30 years	0 (0%)	5 (10%)	24 (48%)	20 (40%)	1 (2%)	7.84	0.10
	≥30 years	2 (4%)	11 (22%)	16 (32%)	18 (36%)	3 (6%)		
II. Education levels	Higher	1 (1.56%)	8 (12.50%)	24 (37.50%)	27 (42.19%)	4 (6.25%)	6.16	0.19
	Other	1 (2.78%)	8 (22.22%)	16 (44.44%)	11 (30.56%)	0 (0%)		
III. Place of residence	<10,000	1 (2.33%)	9 (20.93%)	17 (39.53%)	16 (37.21%)	0 (0%)	5.68	0.22
	≥10,000	1 (1.75%)	7 (12.28%)	23 (40.35%)	22 (38.60%)	4 (7.02%)		
IV. Parenthood (n = 98)	Yes	1 (2.94%)	5 (14.71%)	11 (32.35%)	13 (38.24%)	4 (11.76%)	9.50	0.049
	No	1 (1.56%)	11 (17.19%)	28 (43.75%)	24 (37.50%)	0 (0%)		
V. Current stage of endometriosis	I	1 (2.70%)	4 (10.81%)	15 (40.54%)	15 (40.54%)	2 (5.41%)	5.99	0.65
	II	1 (3.03%)	6 (18.18%)	14 (42.42%)	12 (36.36%)	0 (0%)		
	III/IV	0 (0%)	6 (20.00%)	11 (36.67%)	11 (36.67%)	2 (6.67%)		
VI. Duration of disease	<5 years	1 (1.52%)	7 (10.61%)	30 (45.45%)	25 (37.88%)	3 (4.55%)	5.19	0.27
	≥5 years	1 (2.94%)	9 (26.47%)	10 (29.41%)	13 (38.24%)	1 (2.94%)		

casionally", 36% answered "frequently", and 1% of the women were "always". No significant correlations were observed between the frequency of feeling joy and happiness and the study variables (Table 14).

3.5 Quality of Life

How Would You Rate Your Quality of Life?

Most of the respondents rated their quality of life (42%) positively, with 38% considering their quality of life to be "good" and 4% considering it to be "very good". However, 40% of respondents answered "neither good nor bad". Only 16% of the respondents answered that their quality of life was "bad", while 2% answered "very bad". An analysis of the data showed that those without children were significantly more likely to rate their quality of life as "neither good nor bad" (p = 0.049). The quality-of-life responses based on the different participant characteristics are presented in Table 15.

3.6 Additional Analysis

Combining response categories—for example, collapsing a five-point scale into two categories ("yes"/"no")—can unify frequencies within table cells and improve statistical control. However, such category combination is not always methodologically appropriate, as it can obscure information about response gradation (e.g., differences between "rather yes" and "definitely yes") and oversimplify the interpretation of phenomena. Any such modification is justified only when it is significantly meaningful. Fisher's exact test was used only for 2 × 2 tables because it is the statistically appropriate and most frequently used method for such analysis.

Converting the scale from nominal to ordinal–by assigning numerical values (e.g., 1–5) to response categories–enable the use of nonparametric tests, such as Mann–Whitney U (for two groups) or the Kruskal–Wallis (for three or more groups). This approach allows comparison of medians and response distributions between groups instead of relying solely on frequencies. This approach can serve as a complementary analysis; if the results of nonparametric tests are consistent with those of the Chi-square tests, the reliability and interpretability of the conclusions are increased, despite the limitations imposed by the small sample size.

The tables present a classification of the results, distinguishing analyses with statistically significant findings and large or medium effect sizes, which can be considered important findings (Table 16), from those requiring further testing or modification (Table 17).

4. Discussion

Chronic pain (with typical cyclicity and severity) and infertility resulting from endometriosis, alone or in combination, can significantly reduce the quality of life of affected women due to significant social and psychological impacts on daily activities, intimate relationships, family planning, education, work, mental health, and emotional well-being [12,13,16–25]. Sexual functioning is a critical aspect of overall functioning, closely linked to other domains and affected by disease symptoms [26]. Dyspareunia occurs four times more frequently in women with endometriosis and five times more frequently in those with peritoneal endometriosis than in controls [27]. Previous studies have reported decreased satisfaction with sexual life and its negative impact on relationships with partners [21,26,28]. Baczek *et al.* [29] observed that women with a history of endometriosis lasting more than 3 years reported dyspareunia, bladder pain, and lower back pain significantly more often. In addition, the severity of dysmenorrhea seems to be associated with a lower quality of life. However, chronic pelvic pain and dyspareunia in endometriosis may not negatively impact the quality of life of fertile Turkish women, even in the most advanced stages of the disease [30]. Worse sexual quality of life in women with endometriosis was significantly and independently associated with the presence of dyspareunia, more severe dysmenorrhea, and unemployment [31]. In the current study, no correlations were found between the quality of sexual life and the severity or duration of the disease. According to Łuczak-Wawrzyniak *et al.* [32], endometriosis does not necessarily lead to a deterioration of quality of life, as it may result in the redistribution of personal resources that help patients achieve goals and fulfill important life needs. Women adapt to the course of the disease, enabling them to maintain good relationships, plans for the future, and experience life satisfaction [32].

Wilk [33] suggests that prolonged pain can negatively affect the psychological well-being. According to Wilk [33], there is a strong association between patients' pain complaints and the onset of depressive or anxiety disorders. In the present study, more than 90% of the respondents reported using painkillers. Regarding emotions, most respondents reported experiencing sadness and depression more frequently than joy and happiness. Women without children were significantly more likely to report heightened feelings of societal rejection. Matasariu *et al.* [34] also showed a significant presence of high infertility-related stress across all age groups, contributing to depression and social anxiety.

Ruszała *et al.* [35] noted that fatigue becomes increasingly prevalent in women's daily lives as the disease progresses. Patients with endometriosis also exhibit poor sleep quality [36], which is associated with dysmenorrhea, dyspareunia, pelvic pain, low levels of physical activity, and reduced intake of dairy products, fruits, and nuts [37]. The current study found that nearly half of the participants were dissatisfied with their sleep quality. However, women who had suffered from endometriosis for more than 5 years reported significantly higher sleep satisfaction scores. According to Łuczak-Wawrzyniak *et al.* [32], this can be attributed to adapting to and accepting the disease.

For most individuals, having children is highly important; thus, infertility represents a major life challenge [38]. A significant concern for female patients with endometriosis is the inability to conceive or carry a pregnancy, preventing them from fulfilling their desire to have children. Previous studies have demonstrated that endometriosis-related infertility adversely impacts quality of life and exacerbates anxiety and depression [39–43].

Bień *et al.* [43] observed that the main clinical factors influencing the quality of life in women with endometriosis are difficulties conceiving and sexual problems. This study demonstrated that women without children reported significantly stronger feelings of societal lack of acceptance due to infertility ($p = 0.03$) and were significantly more likely to report a higher impact of endometriosis on preventing the realization of life goals ($p = 0.03$). Moreover, they were significantly more likely to rate their quality of life as "neither good nor bad" ($p = 0.049$). All the participants in this study were more likely to feel sad and depressed than happy, and nearly half were dissatisfied with their sleep quality. However, it appears that a lack of children may have a significant impact on the quality of life of women with endometriosis. This suggests the need for care and emotional support in infertility management, especially when associated with endometriosis [44]. In this study, we used a newly developed questionnaire written in clear, colloquial language accessible to all patients. It was administered electronically and distributed through social networks and support groups for women with endometriosis, which may have introduced selection bias. The population may overrepresent patients who are more symptomatic or actively engaged. Validated tools are commonly used in research to assess quality of life [16–20]. However, Dowrick *et al.* [45] have shown that the context and characteristics of the studied population may influence the measurements obtained using validated que-

Table 16. Important discovery.

Independent variable	Dependent variable	Degrees of freedom	χ^2	p	Fisher test	Phi coefficient/Cramér's V
					p	φ/V
Age	"Problems conceiving due to endometriosis"	2 × 3 and more	25.92	<0.001	-	0.49
	"Influence of health condition on daily activities"	2 × 3 and more	10.17	0.038	-	0.31
Education	pain during bowel movements	2 × 2 (df = 1)	9.09	0.003	0.003	0.30
	"Influence of health condition on daily activities"	2 × 3 and more	14.69	0.005	-	0.36
	"Influence of health status on physical activity"	2 × 3 and more	16.18	0.003	-	0.40
Place of residence	"Disease-related difficulty to get a job"	2 × 3 and more	11.68	0.039	-	0.32
Children	pain during menstruation	2 × 2 (df = 1)	11.33	0.001	0.001	0.35
	"Problems conceiving due to endometriosis"	2 × 3 and more	44.00	<0.001	-	0.65
	"Perceived societal lack of acceptance due infertility"	2 × 3 and more	12.11	0.017	-	0.33
	"Painkillers"	2 × 3 and more	13.49	0.009	-	0.37
	"Satisfaction with sleep quality"	2 × 3 and more	10.65	0.031	-	0.33
	"Influence of endometriosis on realization of plans, dreams, and life goals"	2 × 3 and more	11.12	0.025	-	0.34
	Quality of life	2 × 3 and more	9.50	0.049	-	0.30
Current stage	Pain during bowel movements	2 × 3 and more	9.60	0.008	-	0.30
	"Problems conceiving due to endometriosis"	2 × 3 and more	11.04	0.026	-	0.24
	"Influence of disease-related costs on financial problems in daily life"	2 × 3 and more	16.87	0.031	-	0.29
Duration of disease	"Problems conceiving due to endometriosis"	2 × 3 and more	13.47	0.001	-	0.35
	"Satisfaction with sleep quality"	2 × 3 and more	11.78	0.019	-	0.33

Table 17. Need more testing/modification.

Independent variable	Dependent variable	Degrees of freedom	χ^2	*p*	Fisher test	Phi coefficient/Cramér's V
					p	φ/V
Age	"Influence of health status on physical activity"	2 × 3 and more	8.74	0.07	-	0.29
	"Influence of disease-related costs on financial problems in daily life"	2 × 3 and more	4.86	0.30	-	0.22
	"Painkillers"	2 × 3 and more	7.24	0.12	-	0.26
	"Satisfaction with sexual life"	2 × 3 and more	5.29	0.38	-	0.23
	"Satisfaction with sleep quality"	2 × 3 and more	8.93	0.06	-	0.29
	"Experiencing sadness and depression"	2 × 3 and more	5.21	0.27	-	0.23
	"Experiencing joy and happiness"	2 × 3 and more	7.10	0.13	-	0.25
	Quality of life	2 × 3 and more	7.84	0.10	-	0.26
Education	"Disease-related difficulty to get a job"	2 × 3 and more	10.44	0.06	-	0.31
	"Satisfaction with sexual life"	2 × 3 and more	9.92	0.08	-	0.31
	Quality of life	2 × 3 and more	6.16	0.19	-	0.22
Place of residence	"Problems conceiving due to endometriosis"	2 × 3 and more	4.50	0.11	-	0.21
	"Influence of health status on physical activity"	2 × 3 and more	5.21	0.27	-	0.21
	"Influence of disease-related costs on financial problems in daily life"	2 × 3 and more	5.98	0.20	-	0.24
	"Painkillers"	2 × 3 and more	5.95	0.20	-	0.23
	"Influence of endometriosis on realization of plans, dreams, and life goals"	2 × 3 and more	6.97	0.14	-	0.26
Children	"Disease-related difficulty to get a job"	2 × 3 and more	10.75	0.06	-	0.32
	"Satisfaction with sexual life"	2 × 3 and more	8.63	0.12	-	0.30
	" Experiencing sadness and depression"	2 × 3 and more	6.45	0.17	-	0.26
Current stage	Pain during intercourse	2 × 3 and more	5.56	0.06	-	0.23
	"Influence of health status on physical activity"	2 × 3 and more	10.08	0.26	-	0.21
	"Satisfaction with sexual life"	2 × 3 and more	11.54	0.32	-	0.23
Duration of disease	"Influence of health status on physical activity"	2 × 3 and more	6.59	0.16	-	0.26
	"Influence of disease-related costs on financial problems in daily life"	2 × 3 and more	4.86	0.30	-	0.22
	"Satisfaction with sexual life"	2 × 3 and more	7.64	0.18	-	0.28
	"Experiencing joy and happiness"	2 × 3 and more	7.68	0.10	-	0.27
	Quality of life	2 × 3 and more	5.19	0.27	-	0.23

stionaries. In particular, when the tools have not been validated in the population of interest, it may lead to measurement errors and uncertain conclusions. Becker *et al.* [2] noted the heterogeneity of endometriosis symptoms between populations from six different European countries. Poland had the highest proportion of women experiencing at least one of the three typical symptoms of endometriosis (pelvic pain, pain during or after intercourse, or dysmenorrhea [91%]), while Hungary had the lowest percentage (68.8%). In addition, Polish patients reported severe pain more frequently. Alternatively, global assessment measures based on direct self-reporting [46,47] or online surveys [48] can be used. While validated instruments offer greater objectivity, they are often time-consuming. Non-validated instruments such as global assessments are easier to administer but may be more subjective [49].

To date, studies examining the impact of endometriosis on quality of life have focused on different aspects of patient well-being. In Polish populations, the findings are sometimes contradictory. For example, Łuczak-Wawrzyniak *et al.* [32] concluded that endometriosis does not necessarily lead to a deterioration in women's quality of life, whereas Bień *et al.* [43] showed that difficulties conceiving and sexual problems adversely affect the quality of life of affected women. Surgical treatment plays an important role in managing endometriosis, particularly in severe or treatment-resistant cases. While laparoscopic excision can relieve pain and improve fertility, it may also lead to complications [50–52]. Sexual health in women with endometriosis is multifactorial, influenced not only by the disease itself but also by coexisting conditions such as pelvic floor hypertonicity and chronic pelvic pain [53,54]. These overlapping factors contribute to dyspareunia and broader sexual dysfunction, underscoring the need for a multidisciplinary, biopsychosocial approach to management.

Therefore, the aim of this study was to assess the impact of endometriosis on the quality of life of Polish women based on determinants extracted from a comprehensive literature search: age, education levels, place of residence, parenthood, current disease stage, and duration of disease. Considering the high variability and severity of endometriosis symptoms across different populations, the use of a newly created questionnaire could uncover previously hidden factors influencing the quality of life of women with endometriosis in Poland.

Limitations

Factors such as comorbidities, treatment type, socioeconomic status, or psychological support were not controlled, which may influence perceived quality of life. The questionnaire was administered electronically via Google Forms and distributed through social networks and support groups for women with endometriosis. Participation was voluntary, anonymous, and conducted entirely online.

5. Conclusions

Endometriosis is a condition that affects multiple aspects of a woman's life. Our findings indicate that its negative impacts are complex and multidimensional, with most participants reporting sadness and depression rather than happiness, and nearly half expressing dissatisfaction with their sleep quality. While validated instruments offer greater objectivity, they are often time-consuming. Non-validated instruments, such as global assessments, are easier to administer but may be more subjective.

Availability of Data and Materials

The data presented in this study are available upon request from the corresponding author.

Author Contributions

EM study conception, data collection and analysis, drafting of the manuscript; KC-W drafting of the manuscript; study conception, design and supervision; KW study conception, design and supervision; MWierz and MW analysis and interpretation of data, revision of the manuscript for important intellectual content. All authors contributed to editorial changes in the manuscript. All authors read and approved the final manuscript. All authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work

Ethics Approval and Consent to Participate

The study participants were informed that participation in the study was anonymous and voluntary, and that the results obtained would only be used for scientific purposes. The ethical review and approval were waived for this study by the Bioethics Committee of Poznan University of Medical Sciences, due to the fact that it was not a medical experiment and did not involve patients, and as such, approval was not necessary according to Polish law (KB-282/25, date 23.04.2025). The study was carried out in accordance with the guidelines of the Declaration of Helsinki.

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Conflict of Interest

The authors declare no conflict of interest. Katarzyna Wszołek and Karolina Chmaj-Wierzchowska are serving as the Guest editors of this journal. We declare that Katarzyna Wszołek and Karolina Chmaj-Wierzchowska had no involvement in the peer review of this article and has no access to information regarding its peer review. Full responsibility for the editorial process for this article was delegated to Michael H. Dahan.

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