

## **Risk Factors and Quality of Life for the Egyptian Multiparous Women Presented with Cervical Nabothian Cysts**

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### **Abstract:**

**Background:** Millions of women's lives are impacted by Nabothian cysts, a significant public health concern that causes psychological suffering in addition to limits on social, physical, and sexual activities. **Aim of this research:** The aim of this research was to identify risk factors and to evaluate the quality of life for the Egyptian multiparous women presented with cervical Nabothian cysts. **Research setting:** This research was conducted at outpatient gynecological clinic of Zagazig University Hospitals in Egypt. **Research design:** A descriptive design was utilized. **Research sampling:** A purposive sample of 128 women who diagnosed with a Nabothian cyst between January 2023 and January 2024 was selected. **Tools of data collection:** Consisted of three tools; **Tool I:** A structured interviewing questionnaire was used. **Tool II:** Clinical assessment of cervical Nabothian cysts was done. **Tool III:** Global Quality of Life Scale (GQOL) was used. **Results:** The results of the present research showed that the development of Nabothian cysts was associated with uterine prolapse, vaginal delivery, cervicitis, and infection. Nabothian cysts had a significant impact on quality of life. Nabothian cysts with diameter greater than 1 cm had bad effect on quality of life. Upper cervical Nabothian cysts had a detrimental effect on quality of life. Furthermore, a high number of Nabothian cysts had a detrimental effect on quality of life. **Conclusions:** Nabothian cyst formation is thought to be influenced by cervicitis and vaginal births. Enormous, higher cervical Nabothian cysts severely reduced the affected women's quality of life. **Recommendation:** Raising the awareness of the women about Nabothian cysts causes, manifestations and effect on the quality of life of women is crucial duty of gynecology nurse.

**Keywords:** Cervix; Multiparous women; Nabothian cyst; Quality of life; Risk factors.

### **Introduction:**

Nabothian cysts sometimes referred to as mucinous retention cysts or epithelial cysts are common benign gynecological conditions that form at the uterine cervix. Nabothian cysts are usually asymptomatic, of little clinical significance, and do not require treatment. However, if the issue gets symptomatic or complicated more evaluation and care are needed. The anatomical site that

is targeted for brush sample during cervical screening cytology is the squamo-columnar junction (SCJ) of the uterine cervix, which is also the location of the cysts (**Barrigón et al., 2019**).

The submucosal layer of the cervix is where these cysts are most commonly found, but also form deep within the cervical wall. With a diameter ranging from a few millimeters to four centimeters and are

usually translucent or opaque, whitish to yellow, and have many. Such large cysts can be the source of prolonged irregular menstrual bleeding, ongoing pelvic pain, vaginal fullness, and watery discharge and large enough to allow the pelvic organs to prolapse or protrude from the vagina **(El-Agwany, 2018)**.

Nabothian cysts may develop from the buildup of secretions brought on by inflammation or trauma-related blockage. Nonetheless, females who have given birth are most likely to have Nabothian cysts. This is due to the fact that new tissue grows on the cervix after giving birth, which has the potential to obstruct the Nabothian glands that line the surface of the cervix and cause cysts to form. The cysts range in size from microscopic to multiple centimeters. Nabothian cysts can develop as a result of minor trauma or childbirth, as well as the inflammatory and reparative processes associated with chronic cervicitis. These cysts are most frequently found in the cervix's submucosal layer and rarely observed far into the cervical wall **(Maharjan & Tiwari, 2020)**.

Nabothian cysts are caused by an accumulation of mucus in the uterus as a result of the Nabothian gland becoming blocked. This blockage may be brought on by an infection or inflammation in the vaginal area, where the cervix is covered in a layer of skin that acts as protection. Several tiny, benign nodules may result from this, which may feel or appear during vaginal exams. Cysts can also develop in women who have had vaginal births or cervical injuries because these factors encourage tissue growth around the gland, which can result in cyst formation **(Wu et al., 2020)**.

Nabothian cyst complications can result in hematometra, obstruction of the labor

channel, rectal compression, irregular uterine flow, and in the event of big cysts, rectal compression. Bladder outlet restriction or compression of the sacral and pudendal nerves, which disrupts the nerve supply to the detrusor muscle, can cause chronic urine retention. Furthermore, it was found that during whole-body scan examinations that involve the uptake of iodine -131, Nabothian cysts are frequently the cause of false-positive iodine uptake in the uterine cervix. Using magnetic resonance imaging (MRI), Nabothian cysts may occasionally be detected **(Navruzova & Kurbanova, 2022)**.

Nabothian cysts can also develop during childbirth or minor injuries. They usually show no symptoms and don't need to be treated. Rarely, the cysts may enlarge and change the cervix's size and shape. Substantially enlarged Nabothian cysts can occasionally cause a woman to feel full or in pain. This can be treated with electro-cautery ablation, or excision. Cyst removal is another application for cryotherapy. During this process, the cysts are frozen and broken apart by the doctor using liquid nitrogen. Compared to excision or ablation, this method involves less invasiveness **(Eldin et al., 2024)**.

The maternity nurse should reassure women who find Nabothian cysts that, in most cases; no additional care is required because this is a common finding. Additionally, maternity nurses inform women about retention cysts, which are usually benign and quite common. They are caused by obstruction of the Lumina of glands in the mucosa of the uterine cervix, which is caused by the Nabothian glands at the neck of the uterus. Nabothian cysts or follicles are normal findings that resemble small yellow nodules, so keep a watch out for them **(Sangkomkamhang et al., 2020)**.

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### **Significance of Study:**

Nabothian cysts are benign, frequent cysts that develop on the cervix's surface and researchers found its incidence was 3% worldwide (Tran et al., 2014). Most women who have them never show any symptoms. Greater Nabothian cyst size can have a major effect on women's quality of life, job, social life, and family life, among other areas of their existence. Additionally, larger cysts may hurt and create pressure feelings. It is helpful to look into this issue because this study has never been conducted at Zagazig University's college of nursing. The aim of this study was to identify risk factors and quality of life for the Egyptian multiparous women presented with cervical Nabothian cysts.

### **Aim of the study:**

The aim of this study was to identify risk factors and evaluate the quality of life for the Egyptian multiparous women presented with cervical Nabothian cysts.

### **Research Questions:**

Q1: What are the risk factors for development of cervical Nabothian cysts?

Q2: To what extent Nabothian cysts affect the quality of life of the Egyptian multiparous women?

### **Subjects & Methods:**

#### **Research design:**

A descriptive research design was utilized during this research.

#### **Research setting:**

The research was carried out at an outpatient gynecological clinic at the Egyptian universities hospitals in Zagazig. The aforementioned location was selected due to its dual role as Zagazig's main hospital and the hub for referrals for all of Sharkia's cities, all of which have significant rates of population attendance. It is next to the

antenatal care and family planning facility on the second floor of the outpatient clinic. It contained two rooms: a big room with everything needed for an examination and a smaller one for the assistant nurse. Every day from 9 am to 2 pm, it is available for use. The prenatal clinic is open every day from 9 a.m. to 2 p.m.

### **Sampling:**

**Sample type:** A purposive sample was used.

### **Sample size:**

The total sample of this study was 128 women with confirmed diagnosis with cervical Nabothian cysts from the outpatient Gynecological clinic participated in the study. These patients were chosen from among all those admitted to the outpatient Gynecological clinic within the one-year timeframe beginning on January 1, 2023, and ending on January 1, 2024. Women were being included for this study according to following criteria:

**Inclusion criteria:** Multiparous women in childbearing period (27-43 yrs), suffering from Nabothian cysts diagnosed by trans-vaginal ultrasound or during clinical examination. **Exclusion criteria:** Other types of cervical cysts or cervical cancer.

### **Tools of data collection:**

**Tool I.** A structured interview questionnaire was used to collect the following data:

### **General characteristics of the studied women included the following:**

- Demographic characteristics such as age, educational level, occupation, place of residence
- Medical history of any medical disorders.

- Obstetrics and gynecology history which included the following variables: parity, number, mode of deliveries and type of infertility.
- Risk factors for development of Nabothian cysts as (infection, cervicitis, vaginal delivery or previous history of prolapse).

**Tool II. Clinical assessment of cervical nabothian cysts and which included the following:**

- **Transvaginal ultrasound examination:** Each woman underwent transvaginal ultrasound exam by gynecologist to determine the site, size, and number of cervical Nabothian cysts. All ultrasound examinations were performed by **Voluson or Mindray DC70 machine with a 6-10 MHZ endo-cavitary probe** according to the following steps: 1) prior to the trans-vaginal ultrasound, women were positioned in lithotomy, and the urinary bladder was emptied, with the vaginal canal free from tampons. 2) The transducer was inserted through the vagina. 3) The transducer was prepared before commencing the examination. 4) A gel was applied to the top of the transducer and covered with a condom. 5) The examination included an assessment of the size, number, and position of the Nabothian cyst. 6) Evaluation of the right and left adnexa was also performed (**El-din et al., 2024**).
- **Assess the woman complaint such as** A) vaginal discharge. B) pelvic pain C) bleeding D) dysuria and E) dyspareunia.

**Tool III. Global Quality of Life (GQOL) scale:**

Global Quality of Life Scale used a range of 0 (meaning "no quality of life") to 100 (meaning "perfect quality of life") to allow women to directly assess **own** their

quality of life. In addition, each woman was asked to write a number on this scale between 0 to 100 to indicate the quality of life (**Hyland & Sodergren, 1996**). The global quality of life scale is a **self-rating tool** that asked women to score overall quality of life. We specifically employed this tool to evaluate the impact of cervical Nabothian cysts on the quality of life of the women who were the **day patients** in the study and were unable to return to outpatient gynecological clinics.

**Scoring system for evaluation the quality of life**

At ( $p < 0.05$ ), statistical significance was established. Also, women who obtained a score  $\leq 40$  in global quality of life scale were considered the cases whose quality of life was **impacted** and cases with a score  $\geq 45$  in global quality of life scale were considered the cases whose quality of life was **not impacted**. The researchers considered in the study scoreless to 45 were impacted on quality of life, according to classification suggested by (**Hyland & Sodergren, 1996**).

**Validity of the tools:**

The researchers reviewed local and international literature to obtain more knowledge about the study and designed the study tools. Five experts in obstetrics and gynecological nursing-Faculty of Nursing-Zagazig University reviewed the tools to test the content validity and according to judgment, the questionnaire was modified related to clarity of sentences and appropriateness of contents.

**Reliability of the tools:**

Reliability was calculated by Cronbach's alpha coefficient test. Calculations were made about the reliability (internal consistency) test of the study's questionnaires. At ( $p < 0.05$ ), statistical significance was

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established. Also, patients who obtained a score  $\leq 40$  in global quality of life scale were considered the cases whose quality of life was **impacted** and cases with a score  $\geq 45$  in global quality of life scale were considered the cases whose quality of life was **not impacted**. The researchers considered in the study scoreless to 45 impacted quality of life

### **Ethical considerations:**

The study was approved by the Zagazig University Faculty of Nursing Research Ethics Committee, which assigned it **the ethical code Zu.Nur.REC #:0114**. After the researchers introduced themselves to the women and gave a brief explanation of the research's nature and goal, the women gave their verbal consent to participate in the study. Additionally, women were made aware that all data collected throughout the trial would be kept private and utilized only for research. The Study tools were ensured that the study was not touch participant's dignity, culture, traditional and religious aspects and was not cause any harm for any participant during data collection. Also was not included any immoral statements hence respect human rights.

### **Pilot study:**

To test the tools for clarity, application, and viability, a pilot study of this research including 12 women, or 10% of the total sample size, was conducted. After any necessary revisions were made, the women were removed from the study sample.

### **Field work:**

The recommended modifications on the tools were made, and the final form was ready for use. The researchers visited the study site throughout the study period and checked the registration book to identify the women who met the inclusion criteria. Each

woman was individually met by the researchers, who thoroughly explained the purpose of the study to win their acceptance and their written consent.

After approval of the official permission using proper channels of communication was obtained from the director of the previously mentioned study setting, the researchers attended the outpatient gynecological clinic daily from 9:00 am to 2:00 pm for one year from the beginning of January 2023 to the beginning of January 2024. Field work consists of 3 phase interviewing phase, assessment phase and evaluation phase.

- Interviewing phase: All participant women who diagnosed with Nabothian cyst were interviewed (structured interview) to collect data related to personal characteristics, medical history, obstetrics and gynecological history and risk factors for development of Nabothian cyst.
- Assessment phase: Each woman underwent transvaginal ultrasound exam by gynecologist to determine the site, size, and number of cervical Nabothian cysts.
- Evaluation phase: Women with cervical Nabothian cysts have their quality of life assessed using Global Quality of Life Scale. The global quality of life scale is a **self-rating tool** that asked women to score overall quality of life. We specifically employed this tool to evaluate the impact of cervical Nabothian cysts on the quality of life of the women who were the **day patients** in the study and were unable to return to outpatient gynecological clinics.

### **Statistical analysis:**

Data was gathered and outcome measures were coded, entered into and analyzed by Microsoft Excel program. Statistical analysis was done with IBM SPSS Statistics V. 20 (International Business Machines Corporation



(IBM Corp, 2011). Depending on the kind of information, numerical and percentage representations were used for qualitative data, while mean  $\pm$  SD was used for quantitative data. The Fisher's exact test, when applicable or the Chi-square test was employed to compare variables with categorical data. With continuous data, correlations between two variables were examined using the correlation coefficient test. Calculations were made about the reliability (internal consistency) test of the study's questionnaires. At ( $p < 0.05$ ), statistical significance was established. Also, women who obtained a score  $\leq 40$  in global quality of life scale were considered the cases whose quality of life was **impacted** and cases with a score  $\geq 45$  in global quality of life scale were considered the cases whose quality of life was **not impacted**. The researchers considered in the study scoreless to 45 were impacted on quality of life, according to classification suggested by (Hyland & Sodergren, 1996).

### **Results:**

**Table 1** summarizes the study women's demographic details and medical background. Research reveals that 54.7% of the participating women were in the 27-43 year-old. The study's sample of women included 52.3% with a secondary education completion rate, 53.9% living in rural areas, 53.1% working, and the majority (84.4%) having a history of illness, with 50.9% having diabetes mellitus.

Based on **figure 1**, it was found that that the quality of life was significantly impacted by Nabothian cysts in 53.9% of the studied women and had no effect on the quality of life in 46.1% of them.

Regarding the distribution of risk factors for studied women presented with cervical Nabothian cysts, the following results showed in **figure (2)**. Vaginal delivery represented 47.7 % followed by cervicitis (25.8%). Infection (22.7%) and uterine prolapse (3.9%) considered as risk factors for development of cervical Nabothian cysts.

**Table 2** demonstrates that the differences in parity and distribution method were statistically significant. The quality of life was negatively impacted by para 3 or higher in women with cervical Nabothian cysts ( $P < 0.05^*$ ). The quality of life was worse after a normal vaginal delivery than after a cesarean section ( $P$  value = 0.040\*).

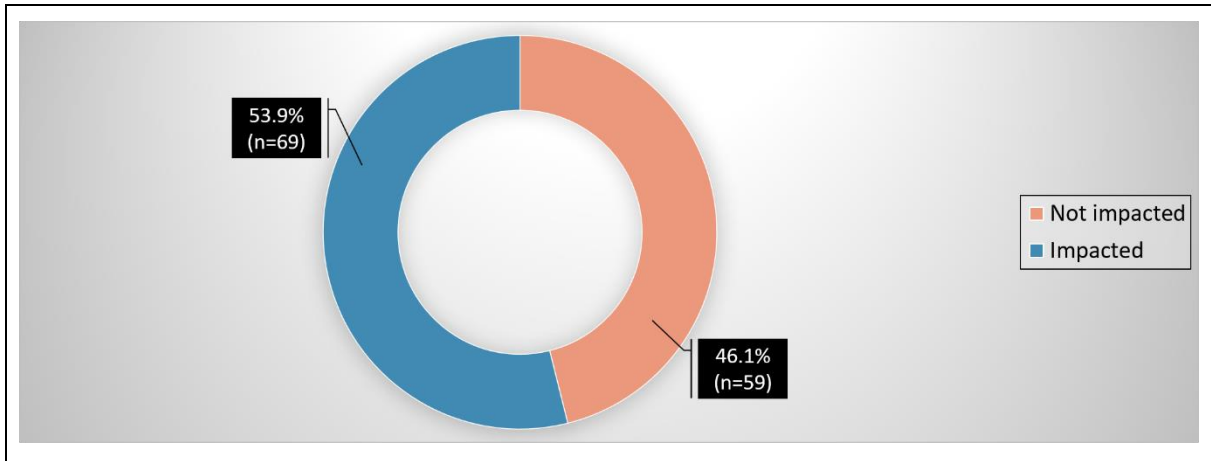
**Table 3** showed the correlation between multiparous women's quality of life and the features of Nabothian cysts. The quality of life was negatively impacted by Nabothian cysts larger than 1 cm ( $P = 0.004^*$ ). The quality of life was negatively impacted by upper cervical Nabothian cysts ( $P = 0.001^*$ ). Moreover, numerous Nabothian cysts negatively impacted quality of life ( $P < 0.001^*$ ) in this table. Additionally, 85.5% of the women in this table reported having dyspareunia. Women reported concerns about vaginal bleeding in 54.4% of cases. Women reported complaints about vaginal discharge in 44.9% of cases. 26.1% of women and 34.8% of women, respectively, had complaints about dysuria and pelvic pain.

**Table 4** shows that the quality of life of multiparous women with cervical Nabothian cysts was significantly impacted by cervicitis, uterine prolapse, vaginal birth, and age between 27-43 years old ( $P < 0.05$ ).

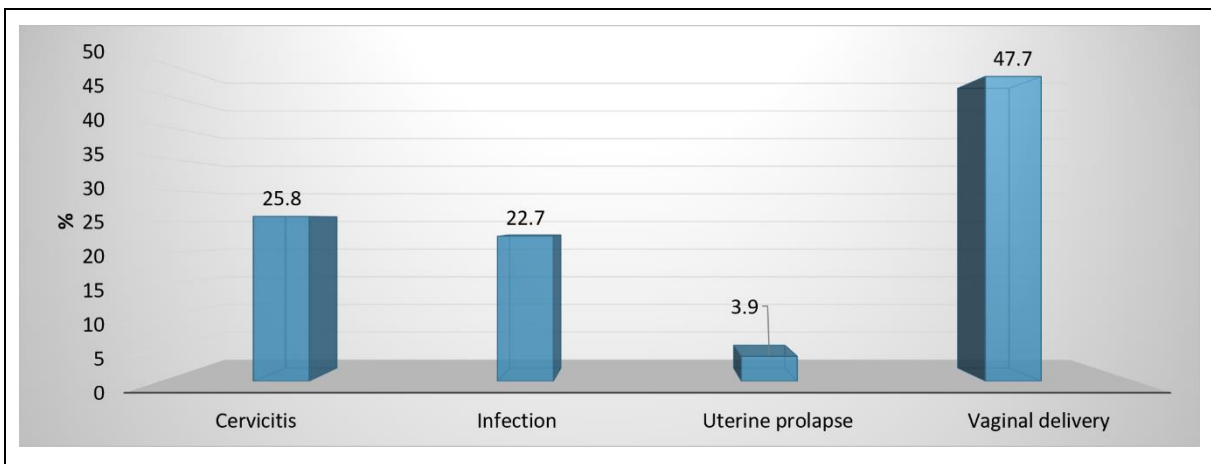
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**Table 1. Distribution of the demographic characteristics and medical history of the study sample (n=128)**

<b>Variables</b>	<b>No.</b>	<b>%</b>
<b>Age (Years)</b>		
27-29	11	8.6
30 – 35	70	54.7
35 – 40	30	23.4
41-43	17	13.3
<b>Mean ± SD</b>	35.1 ± 4.6	
<b>Educational level</b>		
Primary	30	23.4
Secondary	67	52.3
University	31	24.3
<b>Occupation</b>		
Housewife	60	46.9
Working	68	53.1
<b>Place of residence</b>		
Urban	59	46.1
Rural	69	53.9
<b>Previous medical history</b>		
No	20	15.6
Yes	108	84.4
<b>Medical history (n=108)</b>		
Diabetes mellitus	55	50.9
Hypertension	38	35.2
Anaemia	15	13.9



**Figure 1. Impact of cervical Nabothian cyst on quality of life.**



**Figure (2). Distribution of risk factors for cervical Nabothian cyst**

**Table 2. Association between the obstetric history of the study sample and quality of life**

	Not impacted		Impacted		Chi – Square test	
	n	%	n	%	X <sup>2</sup>	P
<b>Parity</b>						
Para 2	14	23.7	12	17.4	8.651	0.013*
Para 3	33	55.9	26	37.7		
More	12	20.3	31	44.9		
<b>Type of delivery</b>						
Cesarean section	14	23.7	26	37.7	2.882	0.040*
Normal vaginal delivery	45	76.3	43	62.3		
<b>Type of infertility (n=30)</b>						
Primary infertility	7	23.3	5	16.7	0.308	0.579
Secondary infertility	10	33.3	8	26.7		

Data are presented as n (%). X<sup>2</sup>; Chi-square test, P value based on Mont Carlo exact probability, and \* P<0.05 (significant).



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**Table 3. Association between the characteristics of Nabothian cyst and impact on quality of life**

Variables	Not impacted		Impacted		Chi – Square test / Fisher’s exact test	
	n	%	n	%	X <sup>2</sup>	P
<b>Size of Nabothian cyst</b>						
Less than 1 cm	7	11.9	23	33.3	8.169	0.004*
More than 1 cm	52	88.1	46	66.7		
<b>Site of Nabothian cyst</b>						
Upper	17	28.8	40	58.0	10.947	0.001**
Lower	42	71.2	29	42.0		
<b>Number of Nabothian cyst</b>						
Single	35	59.3	21	30.4	10.785	0.001**
Multiple	24	40.7	48	69.6		
<b>Symptoms experienced</b>						
Vaginal discharge	44	74.6	31	44.9	11.524	<0.001**
Bleeding	49	83.1	41	59.4	8.508	0.004*
Pelvic pain	42	71.2	24	34.8	16.876	<0.001**
Dysuria	22	37.3	18	26.1	1.857	0.173
Dyspareunia	56	94.9	59	85.5	3.085	0.079

**N.B:** The participants reported more than one complaint regarding symptoms associated with Nabothian cyst.

Data are presented as n (%). X<sup>2</sup>; Chi-square test, P value based on Mont Carlo exact probability, and \* P<0.05 (significant).

**Table 4. Association between the risk factors for Nabothian cyst and impact on quality of life**

	Not impacted		Impacted		Fisher’s exact test	
	n	%	n	%	X <sup>2</sup>	P
<b>Age (Years)</b>						
27-29	7	11.9	4	5.8	8.702	0.034*
30 – 35	32	46.4	38	64.4		
35 – 40	10	16.9	20	29.0		
41-43	4	6.8	13	18.8		
<b>Cervicitis</b>	11	18.6	22	31.9	3.288	0.019*
<b>Infection</b>	14	23.7	15	21.7	2.208	0.349
<b>Uterine prolapse</b>	2	3.4	3	4.3	4.187	0.038*
<b>Vaginal delivery</b>	32	54.2	29	42.0	8.204	0.029*

Data are presented as n (%). X<sup>2</sup>; Chi-square test, P value based on Mont Carlo exact probability, and \* P<0.05 (significant).

## **Discussion:**

Nabothian cysts are benign and frequently found in gynecological practices; yet, they atypically manifest as a large mass. Complete excision is necessary to rule out cancer if the cervix contains a big, deeply placed cystic mass. Nabothian cysts are silent retention cysts that are frequently found in the uterine cervix and do not require special treatment. It is extremely uncommon to grow to a size of more than 4 cm, and differentiating it from an adenoma can be difficult from a diagnostic standpoint. When a Nabothian cyst is small, it doesn't create any symptoms and doesn't require treatment. Only in cases where the patient reports pelvic pain or other symptoms like bleeding, discharge, or dyspareunia is the treatment suggested. Sometimes a Nabothian cyst is misdiagnosed as cancer (**Maharjan & Tiwari, 2020**).

In this study, it is found that more than half of the women who took part were between the ages of 30 and 35 years. More than half of women were in rural areas. About half of studied women had completed secondary school and were employed. This is congruent with the research done by (**Abd El-Kader, 2023**), who reported that the majority of female participants in this study were in reproductive age. A possible explanation of this result was that childbearing age is considered as risk factors for development of cervical Nabothian cysts.

More than two third of women had vaginal birth, while around one third of studied women underwent a caesarean section. Regarding type of infertility, more than half of women had primary infertility while more than quarter of studied women had secondary infertility. These findings are similar to those published by (**Abd El-Kader et al., 2022**) titled “**Risk Factors for**

## **Endometriosis among Egyptian Infertile Women with Different Disease Stages”.**

The current study showed that more than of women had multiple size Nabothian cyst, Nabothian cyst that presented in upper cervix were more common and finally, larger Nabothian cyst represented high percentage among studied women. These results coincide with the results carried out by **El-din et al., 2024** titled “Cytological and Bacteriological Assessment of the Cervix in Cases Having Nabothian Cysts”. Nabothian cysts generally being small- sized and multiple are common gynecopathological conditions of women in reproductive age.

Damage to the cervix and vagina after childbirth may result in a nabothian cyst. Nabothian cysts are frequently observed, non-neoplastic abnormalities that are rarely clinically significant. They are believed to develop secondary to the healing process of chronic cervicitis. Treatment intervention is not necessary until the retention cyst is symptomatic or sufficiently large to raise the possibility of malignancy (**Vural et al., 2015**). These results agreed with present results which demonstrated the most common causes of Nabothian cyst were vaginal delivery, cervicitis, infection and uterine prolapse.

In the current study, dyspareunia was reported by eighty nine percent of studied women. Seventy-three percent of the participants complained about vaginal bleeding. This is in the same line with study carried by **El-Agwany, 2018** that mentioned that the high percentage of participants reporting pelvic pain as a complaint indicates that this symptom is also quite common among women with Nabothian cysts. The reason for association is that, pelvic pain can have various causes, and in the case of Nabothian cysts, it may be related to the size

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and location of the cysts. Larger or symptomatic cysts can exert pressure on surrounding tissues, leading to discomfort or pain.

Regarding the distribution of complaints within the study group of women with Nabothian cysts, vaginal discharge can be a common symptom associated with various gynecological conditions, including cervical cysts. In the context of Nabothian cysts, the presence of mucus-filled cysts on the cervix can disrupt the normal cervical secretions, leading to an increase in vaginal discharge (**Smolarz et al., 2021**).

This current study showed that cervicitis, uterine prolapse, vaginal delivery and age between (27-43 years old) were statistically significant impacted quality of life of multiparous women presented with cervical Nabothian cysts ( $P < 0.05$ ). These results coincide with the study carried out by **Torky, 2016** which showed that most cases, Nabothian cysts occur when new tissue regrows on the surface of the cervix after childbirth. Nabothian cysts are a normal finding on the cervix of women who have had children. Less often, Nabothian cysts are related to chronic cervicitis which means long-term infection of the cervix.

In the current study, concerning the associations between cervical Nabothian cyst and quality of life, the results showed that the quality of life was significantly impacted by this type of cyst. In our study, it was noticed that the quality of life was significantly impacted by Nabothian cyst as more than half of cases with Nabothian cyst had a negative effect on quality of life while less than half of cases with Nabothian cyst reported no bad effect on quality of life. This finding was consistent with previous studies carried by (**Suleiman et al., 2023**) which discussed that “quality of life and associated factors among

infertile women attending infertility clinic at Mnazi Mmoja Hospital, Zanzibar”. Also, this study in the same line of study carried by (**Yilmaz et al., 2022**) which found there is relationship between adenomyosis, Nabothian cyst and quality of life.

Our patients had many factors that make cervical Nabothian cyst had badly effect on quality of life as more two third of participants had cysts larger than 1 cm, more than half of participants had multiple Nabothian cysts. Also, around two thirds of participants had vaginal delivery and all the participants are on reproductive age. All patients in this study suffered from vaginal pain, bleeding, dysuria, dyspareunia and vaginal discharge. All of these factors must be considered when chosen by the required diagnostic and therapeutic measures for affected cases that had negative impact. This research had some limitations such as a decrease in the number of participants and no long-term follow-up was done in this research as many of patients did not return to the out-patient gynecological clinic after diagnosis with Nabothian cyst.

### **Conclusion:**

In this descriptive study, we have provided valuable insights into the clinical significance of Nabothian cysts in women of childbearing age. Our findings revealed that the research questions were answered as Nabothian cysts associated more with uterine prolapse, infection, cervicitis and infection as risky factors. Also, cervical Nabothian cysts affected the quality of life of more than half of the Egyptian multiparous women.

### **Recommendations:**

- Developing diagnostic and therapeutic strategies for cervical health is very important.

- Raising the awareness of the women about Nabothian cysts causes, manifestations and effect on the quality of life of women is crucial duty of gynecology nurse.
- More research should be done to examine the same issues within larger groups of women who are followed up over an extended period of time.

**Further study needs to be performed:**

- Effect of cryosurgery in the management of Nabothian cysts.
- Effect of Nabothian cysts on sexual function health of nulliparous women and delay of pregnancy.

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## عوامل الخطر وجودة الحياة لدى السيدات المصابات بالأكياس النابوئية لعنق الرحم

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تتأثر حياة ملايين السيدات بالأكياس النابوئية لعنق الرحم، وهي مشكلة صحية عامة كبيرة تسبب معاناة نفسية بالإضافة إلى القيود المفروضة على الأنشطة الاجتماعية والجسدية والجنسية. لذا هدفت هذه الدراسة الي تحديد عوامل الخطر وتقييم جودة الحياة للسيدات المصابات بالأكياس النابوئية في عنق الرحم. حيث تم استخدام التصميم الوصفي. و تم إجراء هذا البحث في العيادة الخارجية لأمراض النساء بمستشفيات جامعة الزقازيق في مصر على عينة مكونة من 128 سيدة تم تشخيص إصابتهن بالأكياس النابوئية في الفترة ما بين يناير 2023 ويناير 2024. وتم استخدام ثلاث أدوات لجمع البيانات؛ الأداة الأولى: تم استخدام استبيان المقابلة المنظم. الأداة الثانية: تم إجراء التقييم السريري للأكياس النابوئية في عنق الرحم. الأداة الثالثة: تم استخدام مقياس جودة الحياة العالمية. (GQOL). وأظهرت نتائج البحث الحالي أن تطور الأكياس النابوئية كان مرتبطا بسقوط عنق الرحم، والولادة المهبلية، والتهاب عنق الرحم، والعدوى. كان لأكياس نابوت تأثير كبير على جودة الحياة. كان لأكياس نابوت التي يزيد قطرها عن 1 سم تأثير سيء على جودة الحياة. كان لأكياس نابوت في عنق الرحم العلوي تأثير ضار على جودة الحياة. علاوة على ذلك، كان لعدد كبير من أكياس نابوت تأثير ضار على جودة الحياة. لدى السيدات المصابات. كما يعتقد أن عوامل الخطر لوجود الكيس النابوئية هي: التهاب عنق الرحم والولادات المهبلية. أدت الأكياس النابوئية الضخمة والمرتفعة في عنق الرحم إلى تقليل جودة حياة السيدة المصابة بشدة. واوصت الدراسة بأن رفع مستوى الوعي لدى السيدات حول أسباب أكياس نابوت ومظاهرها وتأثيرها على جودة حياة السيدة هو واجب حاسم لمرمضة أمراض النساء.