

Effect of Social-Platform Nursing Education on Maternity Nurses' Performance Regarding Marsupialization of a Giant Bartholin's Abscess

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Abstract:

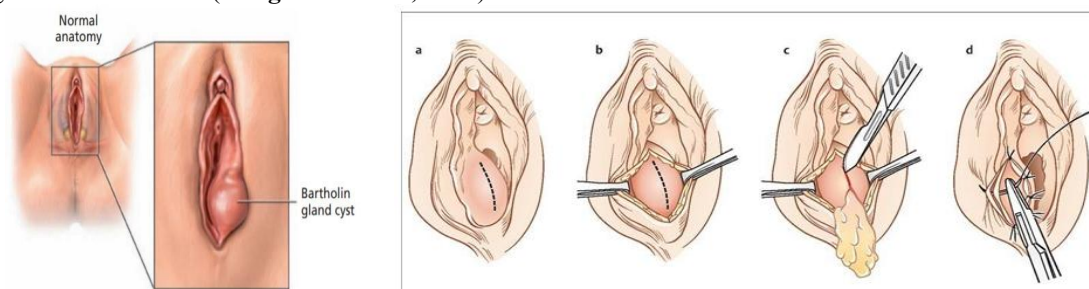
Background: Bartholin's gland abscess is one of the common vulval masses in the females' reproductive system. They are usually small in size and asymptomatic but sometimes might become large or get infected leading to an abscess. Marsupialization of the Bartholin's gland is generally indicated when there is a large cyst or abscess that makes surgical excision of the gland difficult. **Aim:** This study aimed to determine the effect of social-platform nursing education on maternity nurses' performance regarding marsupialization of a giant Bartholin's abscess. **Research design:** A quasi-experimental design was utilized to achieve the aim of this study. **Setting:** The study was conducted in obstetric and gynecologic department at Mansoura University Hospital, Egypt. **Subject:** A convenient sample included 50 maternity nurses whom working at previously listed setting was included in the study. **Tools:** Tool (I): A structured interview questionnaire; and Tool (II): Nurses' reported practice questionnaire (pre and post). **Results:** This study revealed a statistically significant improvement in nurses' knowledge and practices respectively pre- and post-social-platform nursing education regarding marsupialization of a giant Bartholin's abscess. **Conclusion:** The current study concluded that social-platform nursing education has a positive effect on improving maternity nurses' knowledge and practices regarding marsupialization of a giant Bartholin's cyst or abscess. **Recommendation:** Providing continuous in-service training for maternity nurses regarding marsupialization of a giant Bartholin's cyst or abscess in different healthcare settings.

Keywords: Maternity nurses' performance, Marsupialization, Giant Bartholin's abscess, Social-platform, Nursing Education.

Introduction:

The greater vestibular glands, often referred to as the Bartholin glands, play a crucial role in the females' reproductive system. Their main function is to produce mucus that aids in the lubrication of the vulva and vagina. Each Bartholin gland features a duct that is roughly 5 mm in diameter in a reproductive female (Bakouei et al., 2024). To effectively secrete mucus, the gland's epithelium is columnar, while the duct's epithelium is simple. The orifice is characterized by stratified squamous epithelium. The secretion is a thick, clear, mucoid fluid with a basic pH, which facilitates lubrication during sexual intercourse (Illingworth et al., 2020).

On average, each Bartholin gland measures between 1.5 to 2 cm and has an oval shape, located just below and to the side of the bulbocavernosus muscle. They receive innervation from a minor branch of the perineal nerve, and their blood supply comes from a small arterial branch associated with the bulbocavernosus muscle. Venous drainage also occurs through vessels linked to the bulbocavernosus muscle. Lymphatic drainage follows the pathway to the vestibular plexus and pudendal vessels, which is an important consideration during extensive surgical procedures. See the accompanying image below (Ouldamer et al., 2023).



Management of Bartholin Gland Cyst and Abscess

A Bartholin cyst is an enlargement resulting from the buildup of mucus located at the 4- and 8-o'clock positions of the vulvar vestibule. When this enlargement shows signs of infection or inflammation, such as redness, swelling, warmth, and tenderness, it is termed an abscess (**Wang et al., 2022**). Bartholin cysts or abscesses occur in about 2% of women, generally during their reproductive years. There are multiple treatment options for Bartholin cysts, including drainage through a simple incision, placement of a Word catheter, marsupialization, application of silver nitrate, or excision. In the marsupialization procedure, a 1.5-3 cm incision is created in the cyst or abscess to facilitate drainage from the glands and reduce the formation of scars. Once the cyst is drained, the capsule is stitched to the outer edge to prevent closure and recurrence, promoting re-epithelialization. Local, regional, or general anesthesia is required for the marsupialization process (**Rotem et al., 2021**).

A Bartholin's abscess occurs when the ducts of the Bartholin's glands get obstructed, preventing proper fluid drainage. This obstruction results in the formation of a cyst filled with fluid. These cysts can differ in size and may show symptoms or remain asymptomatic. The Bartholin's glands are situated on both sides of the vaginal opening and are responsible for lubricating the vagina. Common symptoms include discomfort or pain in the vaginal region, swelling near the vaginal opening, and occasionally redness or tenderness (**Illingworth et al., 2020**). The precise cause of a Bartholin's abscess is not clearly defined; however, it may stem from infection, trauma, or irritation of the Bartholin's glands. In some instances, they can develop without any apparent cause. A physical examination is performed to identify a Bartholin's abscess. In certain situations, additional tests like a biopsy may be necessary to exclude other potential conditions. Bartholin's abscesses occur in 2%–3% of adult females and typically range from 2 to 4 cm in size (**Aldrich & Pauls, 2021**).

The management of substantial Bartholin's abscesses is a topic of discussion within the medical community due to various factors and considerations. One point of contention is when to intervene. Some healthcare professionals advocate for prompt surgical drainage to alleviate patient pain and avert infections, whereas others support a more conservative approach, monitoring the abscess to determine if it resolves naturally before pursuing surgery (**Lilungulu et al., 2017**).

Marsupialization is often advised for patients with a latex sensitivity, given that the traditional catheter stem is composed of latex, though there are now silicone-based alternatives available. Marsupialization or excision may be preferable if the patient faces recurrence after one or two catheter insertions or if the abscess exceeds 5 cm in size. The aim of marsupialization is to create a surgical pouch by suturing the cyst wall to the border of the excision. This method avoids the closure of the excision and ensures that the duct remains open for continuous drainage of the cyst, ultimately promoting the re-epithelialization of the tract. A linear incision is performed along the length of the abscess wall on its medial side, specifically distal to the hymenal ring. Using interrupted absorbable sutures with a fine needle, the mucosal layer and cyst wall are attached to the outer edge of the incision (**Karabük et al., 2022**).

Social media platforms like Facebook, Instagram, WhatsApp, Snapchat, and Twitter can facilitate ongoing support and effective communication while overcoming barriers often associated with in-person interactions. Nurses view social media as a valuable resource for accessing disease-specific information, engaging with others swiftly and efficiently, and sharing medical information with a community of patients facing similar challenges (**Peng et al., 2022**).

In today's world, contemporary technological advancements and methods employed to reduce the spread of illness among individuals, such as staying at home, restricting access to nursing facilities, and limiting gatherings in public spaces, are implemented to lessen disease transmission. Community members utilize technological resources like social media to raise awareness, provide education, and monitor health-related occurrences (**Podina et al., 2019**).

Social media encompasses websites and applications that allow users to create and share content or engage in social networking. Platforms and communities such as Facebook, WhatsApp, and Facebook Messenger enable multiple individuals to communicate and interact simultaneously. The number of active global social media users continues to grow, exceeding 3.2 billion. The influence of social media varies based on users and non-users, as well as different age groups and demographic categories. Given that technological advancements correlate with changes in language and culture, the impact of social media is in constant flux. Increasingly, social media is being used in healthcare to enhance communication speed, spread accurate information, and raise awareness about support options, treatments, and self-care methods (**Claes et al., 2020**).

Nurses can significantly contribute to education through training programs in clinical environments as well as through community outreach initiatives tailored to our social and cultural context, serving as a vital source of information within their social circles (Dawdy, 2018).

Electronic education is an innovative approach in the field of education that combines a range of tools and technologies to deliver educational content. These tools and technologies include electronic media, broad networks such as the internet and extranet, compact discs, multimedia applications, and computer simulation models. Social-platform education builds upon electronic education by incorporating various media to improve interaction between learners and software, thus enhancing creativity and boosting educational efficacy (Lawn et al., 2019). The primary goal of social-platform education is to assist nurses in attaining greater knowledge and skills. A significant benefit of social-platform education is its capacity to engage individuals with limited literacy. Studies on the application of social-platform education have demonstrated favorable outcomes for patients with chronic conditions, such as those in recovery from heart surgery and managing heart failure (Abbasi et al., 2018), patients with prostate cancer preparing for radiotherapy (Dawdy et al., 2018), and individuals recovering from lumbar disc surgery (Zarei et al., 2019).

Significance of the study:

The technological revolution has opened up new possibilities for improving access to effective treatments for maternal health concerns. Recent studies suggest that therapy provided through technology can be effective for various health concerns (Podina et al., 2019). Online education is likely to be readily accepted due to its potential for saving money, along with the benefits of flexibility in terms of location, timing, and expenses (Song et al., 2019). Furthermore, technology-enhanced education at home enables individuals with chronic illnesses to manage their health conditions while integrating them into their daily social lives (Di Tella et al., 2019). Electronic education represents one of the contemporary methods of learning, utilizing various tools and technologies to present educational content.

A straight forward Bartholin's abscess might need marsupialization, and it's typically advised to use antibiotic treatment (Karabük et al., 2022). Women in the reproductive age group should get counselling regarding the disease to take better precautionary measures to tackle the condition (Das et al., 2024). Hence, the aim of the current study was to determine the effect of social-platform nursing

education on maternity nurses' performance regarding marsupialization of a giant Bartholin's abscess.

Aim of the study:

This study aimed to determine the effect of social-platform nursing education on maternity nurses' performance regarding marsupialization of a giant Bartholin's abscess.

Research hypothesis:

H₁. Maternity nurses who received social-platform nursing education regarding marsupialization of a giant Bartholin's abscess would experience an improvement in the knowledge and practice mean scores post-implementation than pre-implementation.

Subjects and Methods:

Research design:

A quasi-experimental research design was used to fulfill the aim of this study.

Setting:

The study was conducted in obstetric and gynecological inpatient wards (9, 10, 15 and 18) at Mansoura University Hospital, Mansoura city, Dakahlia governorate, Egypt. The obstetric and gynecological inpatient wards consist of four wards with 26-28 beds in each. Mansoura University Hospital provide services for pregnant, parturient and postpartum women three days per week (Sunday, Tuesday & Thursday).

Sample:

A convenient sample included 50 maternity nurses whom working at previously listed setting was included in the study.

Tools of data collection:

Two tools were used in this study as follows:

Tool (I): A structured interview questionnaire; this sheet was developed by the researcher based on pertinent literature and consists of two parts.

Part 1: It was used to gather information on the demographic of maternity nurses and included the following 6 items: age, qualification, occupation, place of residence, years of experience and previous training sessions.

Part 2: Nurses' knowledge questionnaire: it used to assess maternity nurses' knowledge regarding marsupialization of a giant Bartholin's abscess included definition, symptoms, causes, treatment, prevention and complication.

Scoring system:

It consisted of 20 short questions (closed ended). Each correct answer was given score (1) and the wrong answer was given zero. The total score of the questionnaire was 20. The total score was considered "satisfactory" if it equals or more than 75% and "unsatisfactory" if it less than 75%.

Tool (II): Nurses' reported practice questionnaire: it used to assess nurses' level of practice regarding marsupialization of a giant Bartholin's abscess. The developed tool used after reviewing the related literatures as definition, goals, preparation, and technique.

Scoring system:

- Each correctly done step had score (1), but zero score was given to the incorrect or not done step. The total score of performance was 16. The total score was classified as Competent if the score $\geq 85\%$ of the maximum score. While incompetent if the score is $< 85\%$ of the maximum score.

The procedure of data collection:**Preparatory phase:**

This involved examining both current and historical literature alongside theoretical insights related to various facets of the study by utilizing textbooks, articles, online resources, and periodicals to formulate the data collection instruments.

Validity and reliability of the tool:

The tools' validity was evaluated by five expert professors, which included two specialists in medical-surgical nursing and three in obstetrics. Adjustments will be made based on the panel's feedback to ensure clarity and suitability of the content. For assessing internal consistency reliability, the Cronbach's alpha coefficient yielded the following results: Tool I was 0.933, while Tool II was 0.845.

Ethical considerations:

Before conducting this study, the researchers obtained an ethical consent from the Research Ethics Committee, Faculty of Nursing, Mansoura University, Egypt. In addition, an official approval from the director of Mansoura University Hospital was obtained; after explaining the study's aim and method, each maternity nurse provided an oral consent. All participants were reassured regarding the confidentiality of the gathered information and the ability to withdraw from the study at any time.

Pilot Study:

A pilot study was carried out involving 10% (5 nurses) to evaluate the clarity, feasibility, and

practical implementation of the research procedures.

Fieldwork:

The current study was conducted from the beginning of November 2024 to the end of February 2025. The researchers attended the previously mentioned setting three days /week (Sunday, Tuesday & Thursday) from 9 a.m. to 2 p.m. to complete the calculated sample size.

Data collection occurred in three stages:**I- Assessment phase:**

In this phase, information was gathered from the maternity nurses. The process began with a structured interview questionnaire that encompassed (personal information, knowledge level, and practice level regarding the marsupialization of a giant Bartholin's abscess). Completing this questionnaire took approximately (25-35 minutes) for each nurse.

II- Planning phase:

- In this phase, researchers informed maternity nurses about the advantages of social-platform nursing education, as the educational materials were accessible to them through a WhatsApp application and feedback groups.

- The design of the social-platform nursing education was based on an evaluation of the current knowledge and practices of the nurses assessed in the pretest.

- The researchers collected each nurse's telephone number and evaluated their internet access to ensure communication via the WhatsApp group.

- The researchers established a WhatsApp group to enhance daily communication with maternity nurses and to distribute educational materials related to nursing, which comprised videos, PowerPoint presentations, and posters focusing on the marsupialization of a large Bartholin's abscess.

III- Implementation phase:

The educational content included information regarding marsupialization of a giant Bartholin's abscess. Education was provided using a video regarding marsupialization of a giant Bartholin's abscess containing pictures and sound clips. Participants were recruited to the study; Participants received a copy of the video via a WhatsApp group dedicated to social-platform nursing education focused on the marsupialization of a giant Bartholin's abscess. A checklist serving as a reminder was provided to them. In addition, weekly phone calls were made to remind them to engage with the social-platform nursing education. Before the study intervention began and two months later, participants completed the designated study instruments. The researchers shared relevant videos, PowerPoint presentations, and posters about the marsupialization of a giant Bartholin's abscess. They also created online videos and audio recordings that explained the information to enhance maternity nurses' knowledge

and practices related to the marsupialization of a giant Bartholin's abscess.

Once the WhatsApp group was formed, the researchers communicated via text and voice messages outlining the objectives of the social-platform nursing education resources.

The researchers decided to hold a WhatsApp meeting chat session and upload the educational content from the social media nursing program each week on Sunday. Maternity nurses were also encouraged to attend this meeting punctually to facilitate open discussions among all participants.

Furthermore, the researchers sent daily messages that highlighted essential advice and information regarding the marsupialization of a giant Bartholin's abscess.

Maternity nurses were motivated to share brief daily health messages with each other about their experiences with the marsupialization of a giant Bartholin's abscess.

IV- (Evaluation phase):

Evaluation was conducted by interviewing maternity nurses post one month by using the same tools used in the pre-test to determine the effect of social-platform nursing education on maternity nurses' performance regarding marsupialization of a giant Bartholin's abscess.

Statistical analysis:

Version 20.0 of SPSS for Windows (SPSS, Chicago, IL) was used for all statistical analyses. The mean \pm standard deviation (\pm SD) was utilized to represent continuously distributed data that follows a normal distribution. Categorical data was represented using both percentages and counts. The chi-square test (or Fisher's exact test, when suitable) was employed to compare variables with categorical data. The study's questionnaires' internal consistency test, or reliability test, was computed. The cutoff point for statistical significance was $p < 0.05$.

Results:

Table (1): describes that 46% of them aged from 30–40 years. Additionally, 46 % had 10–20 years of experience, and 58% of them had a nursing institute degree in nursing education.

Figure (1): shows that 90% of the studied maternity nurses didn't have previous training about marsupialization of a giant Bartholin's abscess.

Figure (2): illustrates that the main sources of knowledge among the maternity nurses about marsupialization of a giant Bartholin's abscess were from internet (85%), followed by TV (8%) and followed by doctors (7%).

Table (2): depicts that there were significant differences in the mean difference scores of maternity nurses regarding knowledge about marsupialization of a giant Bartholin's abscess before and after social-platform nursing education. This indicates that the knowledge level of maternity nurses improved after the social-platform nursing education in all domains. This demonstrated that the post social-platform nursing education had the highest mean scores compared to the pre- intervention.

Figure (3): illustrates that the total level of knowledge concerning to marsupialization of a giant Bartholin's abscess was satisfactory among 4% of studied maternity nurses during the social-platform nursing education, while it was 92% post social-platform nursing education.

It's cleared from Table (3) that there was a highly statistically significant difference ($p = < 0.001$) and improvement in the maternity nurses' reported practices mean scores regarding marsupialization of a giant Bartholin's abscess pre and post-one month of social-platform nursing education. Additionally, the total nurses' reported practices mean score improved from 6.37 ± 2.05 pre-social-platform nursing-education to 13.45 ± 2.23 post- social-platform nursing-education with statistically significant differences.

Figure (4) indicates that the total level of reported practices regarding marsupialization of a giant Bartholin's abscess had competent level of reported practices among 2% of studied maternity nurse's pre-social-platform nursing education period while post social-platform nursing-education 90% of them had incompetent level of reported practices.

Table (4) demonstrates a highly significant positive correlation between the total knowledge scores and total practice scores of the nurses studied before and after the social-platform nursing education on the marsupialization of a giant Bartholin's abscess.

Table (5): Illustrates that there was a statistically significant relationship between the educational level of the studied maternity Nurses' and overall knowledge, practices, and demographic data throughout the phases of the social-platform nursing education regarding marsupialization of a giant Bartholin's abscess at $p < 0.001$.

Table (1): Distribution of maternity nurses regarding to demographic data (n=50)

Items	N	%
Age (years)		
< 30	12	24.0
30 – 40	23	46.0
> 40	15	30.0
Mean \pm SD	35.8 \pm 5.8	
Educational qualifications		
Secondary nursing	13	26.0
Nursing institute	29	58.0
Bachelor of Nursing	8	16.0
Experience (Years)		
Less than 10	13	26.0
10 – 20	23	46.0
More than 20	14	28.0

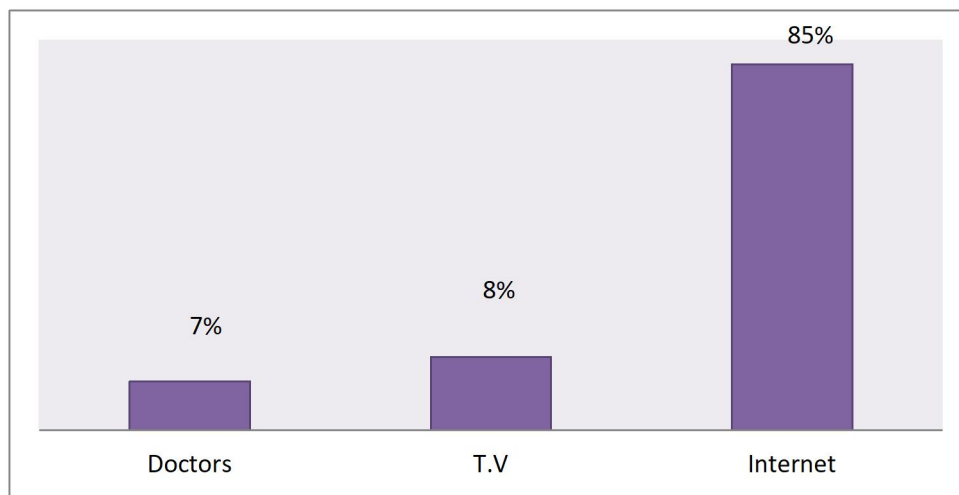
**Figure (1):** Previous training about marsupialization of a giant Bartholin's abscess among maternity nurses (n=50).**Figure (2):** Sources of knowledge about marsupialization of a giant Bartholin's abscess among maternity nurses (n=50).

Table (2): Maternity nurses' knowledge mean scores differences related to marsupialization of a giant Bartholin's abscess pre- and post-one month of social-platform nursing education (n=50).

Items	Pre-social-platform nursing education	Post social-platform nursing education	X2	P-value
Maternity nurses' knowledge mean scores	7.34±2.11	16.43 ±1.89	53.78	<0.001

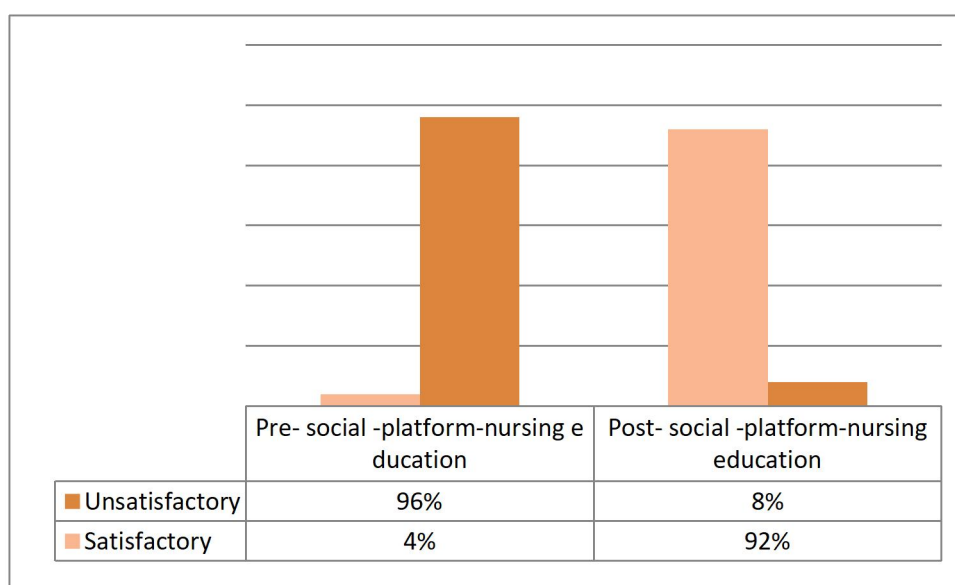


Figure (3) Total maternity nurses' knowledge level concerning to social-platform nursing education pre and post one month of social-platform nursing education (n=50).

Table (3): Maternity nurses' reported practices mean scores differences related to marsupialization of a giant Bartholin's abscess pre and post one month of social-platform nursing education (n=50).

Items	Pre- social-platform nursing-education	Post- social-platform nursing-education	X2	P-value
Maternity nurses' reported practices mean scores	6.37 ±2.05	13.45±2.23	64.33	<0.001

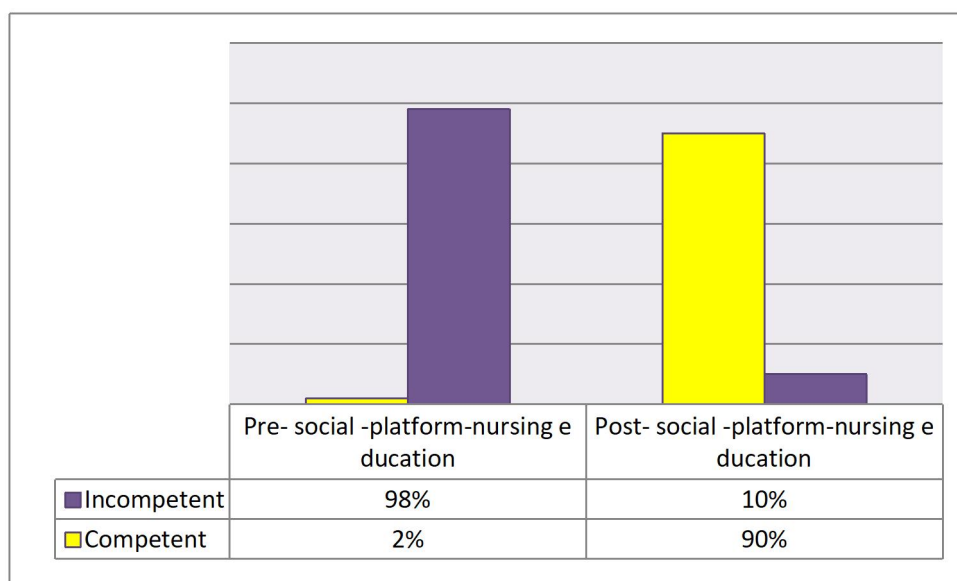


Figure (4) Maternity Total nurses' reported practices level concerning to social-platform nursing education pre and post one month of social-platform nursing education (n=50).

Table (4): Correlation between total knowledge and total practices pre and post social-platform nursing education (n=50)

Items	Total Knowledge scores			
	Pre-social-platform nursing education		Post social-platform nursing education	
	R	p-value	R	p-value
Total Practices scores	0.76	0.001**	0.46	0.002**

** Correlation is significant at the < 0.01 level

Table (5): Correlations between maternity nurses' knowledge, practices regarding marsupialization of a giant Bartholin's abscess, and demographic data (n=50).

Scores	Spearman's rank correlation coefficient (r)	
	Knowledge	Practices
Pre-intervention		
Age	-.143	.078
Education	.129	.167
Residence	-.108	-.172
Post-intervention		
Age	-.209	-.275*
Education	.306**	.381**
Residence	-.159	-.048

(*) Statistically significant at $p < 0.05$ (**) statistically significant at $p < 0.01$

Discussion:

A Bartholin's abscess develops when the ducts of the Bartholin's glands become obstructed, hindering proper fluid drainage. This obstruction results in the creation of a cyst filled with fluid. In some cases, surgery may be required to excise the cyst or the entire Bartholin's gland. In instances of a simple Bartholin's abscess, marsupialization may be necessary, and antibiotic treatment is typically

advised (Aldrich & Pauls, 2021). Therefore, the researchers conducted this study to assess the impact of social-platform nursing education on the performance of maternity nurses concerning the marsupialization of a large Bartholin's abscess.

According to the study's findings, the majority of the nurses of the study were between the ages of 30–40 years. This outcome supported Ahmed's (2023) assertion that the majority of Egypt's nursing

workforce was educated at diploma programs, and it is anticipated that they are currently engaged across all nursing services.

The present study showed that most of the studied maternity nurses didn't have previous training about marsupialization of a giant Bartholin's abscess. From the perspective of the researcher, it reflected the need of the studied nurses to acquired sufficient information regarding marsupialization of a giant Bartholin's abscess. This result was in the same line with **Illingworth et al., (2020)** who found that most of the sample didn't have previous training about marsupialization of a giant Bartholin's abscess

The present study showed that the main sources of knowledge among the maternity nurses about marsupialization of a giant Bartholin's abscess were from internet. In the researchers' opinion, this is due to the availability of mobile phones with all nurses, which helps to browse and find out what is new. This result was supported by **Rotem et al., (2021)** who reported that there was improvement in the studied sample.

According to the present study's findings, the present study showed that there were significant differences in the mean difference scores of maternity nurses regarding knowledge about marsupialization of a Giant Bartholin's Abscess before and after social-platform nursing-education. This indicates that the knowledge level of maternity nurses improved after the social-platform nursing-education in all domains. In the researchers' opinion, this could be due to receiving learning through the social platform, which allowed continuity of information and reference to it when needed through groups. This result was similar to the study conducted by **Karabük & Ganime, (2022)** who stated that the participants knowledge had improved post education.

According to the present study's findings, the present study showed that the total level of knowledge concerning to marsupialization of a giant Bartholin's abscess was satisfactory among most of studied maternity nurses post social-platform nursing-education. From the researchers' opinion; it reflected the effectiveness of social-platform nursing-education. Similar findings were made by **Shariff et al., (2022)**, who discovered that nurses in the intervention group showed an improvement in their understanding post intervention.

According to the present study's findings, the present study showed that there was a highly statistically significant difference and improvement in the maternity nurses' reported practices mean scores regarding marsupialization of a Giant Bartholin's Abscess pre and post-one month of social-platform nursing-education. From the researchers' opinion; it reflected the positive effects

of social-platform nursing education, that affected the practices of studied nurses positively regarding marsupialization of a Giant Bartholin's Abscess.

According to the present study's findings, the present study showed that the total level of reported practices regarding marsupialization of a giant Bartholin's abscess had competent level of reported practices among most of studied maternity nurse's post- social-platform nursing-education had competent level of reported practices. From the researchers' opinion; it confirmed the success of social-platform nursing-education and the desire of the studied nurses on improving their practices regarding marsupialization of a giant Bartholin's abscess. The results of the current study were also supported by **Bringas & Billod, (2021)**, which demonstrated that nurses' practice improved after the application. This improvement may be related to the fact that organized and ongoing nursing education effectively enhances nurses' practices.

According to the present study's findings, the current research indicated a strong statistically significant positive correlation between overall knowledge scores and overall practices. scores of the studied nurses pre and post social-platform nursing-education regarding marsupialization of a giant Bartholin's abscess. From the researchers' opinion; this could be a result of nurses' knowledge and practices being improved by ongoing evaluation and receiving social-platform nursing-education regarding marsupialization of a giant Bartholin's abscess which provide them with sufficient knowledge and reflected on their practice by doing well.

According to the present study's findings, the present study showed that there was a statistically significant relationship between the educational level of the studied maternity Nurses' and overall knowledge, practices, and demographic data throughout the phases of the social-platform nursing-education regarding marsupialization of a giant Bartholin's abscess. From the researchers' opinion; In the opinion of the researchers, this can be explained by the fact that the higher the level of learning is associated with an increase in information and the acquisition of stronger experience in performance, which is accompanied by an increase in information.

Conclusion:

Based on the study results, it was concluded that the current study concluded that social-platform nursing education has a positive effect on improving maternity nurses' knowledge and practices regarding marsupialization of a giant Bartholin's abscess.

Recommendations:

Based on the findings of the current study, the researchers suggested the following recommendations

- Providing continuous in-service training for maternity nurses regarding marsupialization of a giant Bartholin's abscess in different healthcare settings.
- Repeating the current research with a larger group of maternity nurses in different environments to make the findings more applicable.

Acknowledgment:

Researchers express their deep appreciation and gratitude to all maternity nurses who were participated in this study.

Conflict of Interest:

No conflict of interest was found.

References

- Speck NM, Boechat KP, Santos GM, Ribalta JC. Treatment of Bartholin gland cyst with CO2laser. *Einstein (Sao Paulo)* 2016;14:25–29. [PMC free article] [PubMed] [Google Scholar]
- Illingworth B, Stocking K, Showell M, Kirk E, Duffy J. Evaluation of treatments for Bartholin's cyst or abscess: a systematic review. *BJOG*. 2020;127:671–678. [PubMed] [Google Scholar]
- Aldrich ER, Pauls RN. Benign Cysts of the Vulva and Vagina: A Comprehensive Review for the Gynecologic Surgeon. *Obstet Gynecol Surv*. 2021;76:101–107. [PubMed] [Google Scholar]
- Lee MY, Dalpiaz A, Schwamb R, Miao Y, Waltzer W, Khan A. Clinical Pathology of Bartholin's Glands: A Review of the Literature. *Curr Urol*. 2015;8:22–25. [PMC free article] [PubMed] [Google Scholar]
- Lilungulu A, Mpondo BCT, Mlwati A, Matovelo D, Kihunrwa A, Gumodoka B. Recurrent Huge Left Bartholin's Gland Abscess for One Year in a Teenager. *Case Rep Infect Dis*. 2017;2017:9151868. [PMC free article] [PubMed] [Google Scholar]
- Karabük E, Ganime Aygün E. Marsupialization vs Word catheter in the treatment of Bartholin cyst or abscess: retrospective cohort study. *J Turk Ger Gynecol Assoc*. 2022;23:71–74.
- Bora SA, Condous G. Bartholin's, vulval and perineal abscesses. *Best Pract Res Clin Obstet Gynaecol* 2020; 23: 661-6.
- Wechter ME, Wu JM, Marzano D, Haefner H. Management of Bartholin duct cysts and abscesses: a systematic review. *Obstet Gynecol Surv* 2019; 64: 395-404.
- Marzano DA, Haefner HK. The Bartholin gland cyst: past, present and future. *J Low Genit Tract Dis* 2024; 8: 195-204.
- Patil S, Sultan AH, Thakar R. Bartholin's cysts and abscesses. *J Obstet Gynaecol* 2020; 27: 241-5.
- Kroese JA, van der Velde M, Morssink LP, Zafarmand MH, Geomini P, van Kesteren P, et al. Word catheter and marsupialisation in women with a cyst or abscess of the Bartholin gland (WoMan-trial): a randomised clinical trial. *BJOG* 2017; 124: 243-9.
- Lee MY, Dalpiaz A, Schwamb R, Miao Y, Waltzer W, Khan A. Clinical pathology of Bartholin's glands: a review of the literature. *Curr Urol*. 2015 May. 8(1):22–5. [QxMD MEDLINE Link].
- Decherney AH, Nathan L, Goodwin TM, Laufer L. Anatomy of the female reproductive system. Sydor AM, Edmonson K, eds. *Current Diagnosis & Treatment: Obstetrics & Gynecology*. 10th ed. New York, NY: McGraw-Hill; 2007. 21.
- Kessous R, Aricha-Tamir B, Sheizaf B, Shtainer N, Moran-Gilad J, Weintraub AY. Clinical and microbiological characteristics of bartholin gland abscesses. *Obstet Gynecol*. 2013 Oct. 122(4):794-9. [QxMD MEDLINE Link].
- Ouldamer L, Chraïbi Z, Arbion F, Barillot I, Body G. Bartholin's gland carcinoma: epidemiology and therapeutic management. *Surg Oncol*. 2023 Jun. 22(2):117-22. [
- Wang K, Zheng Y, Tong L, Pei K, He X, Zhang J. Analysis of clinical outcomes of patients with primary rare carcinoma of Bartholin gland: six case series report and review of the literature. *Transl Cancer Res*. 2022 Jun. 11 (6):1483-7. [QxMD MEDLINE Link]. [Full Text].
- Mayeaux EJ Jr, Cooper D. Vulvar procedures: biopsy, bartholin abscess treatment, and condyloma treatment. *Obstet Gynecol Clin North Am*. 2013 Dec. 40(4):759-72. [QxMD MEDLINE Link].
- Reif P, Ulrich D, Bjelic-Radisic V, et al. Management of Bartholin's cyst and abscess using the Word catheter: implementation, recurrence rates and costs. *Eur J Obstet Gynecol Reprod Biol*. 2015 Jul. 190:81-4.

- Illingworth B, Stocking K, Showell M, Kirk E, Duffy J. Evaluation of treatments for Bartholin's cyst or abscess: a systematic review. *BJOG*. 2020 May. 127 (6):671-8. [[QxMD MEDLINE Link](#)].
- Rotem R, Diamant C, Rottenstreich M, et al. Surgical Treatment of Bartholin's Gland Abscess: Is Word Catheter Superior to Marsupialization? *J Minim Invasive Gynecol*. 2021 Jun. 28 (6):1211-5. [[QxMD MEDLINE Link](#)].
- Bakouei F, Zolfaghari F, Mirabi P, Farhadi Z, Delavar MA. Comparison of Word Catheter and Marsupialization in the Management of Bartholin's Glands: A Systematic Review and Meta-Analysis. *J Obstet Gynaecol Can*. 2024 Apr. 46 (4):102357. [[QxMD MEDLINE Link](#)].
- Illingworth B, Stocking K, Showell M, Kirk E, Duffy J. Evaluation of treatments for Bartholin's cyst or abscess: a systematic review. *BJOG: Int J Obstet Gy*. 2020;127(6):671-678.
- Ahmed H M. (2023): Assessment of nurses' knowledge and practice about postoperative wound infection. Master thesis, Faculty Of Nursing, Suez Canal University. Egypt.
- Rotem R, Diamant C, Rottenstreich M, et al. Surgical Treatment of Bartholin's Gland Abscess: Is Word Catheter Superior to Marsupialization? *Journal of Minimally Invasive Gynecology*. 2021; 28(6):1211.
- Shariff FO, Septian D, Fajarwati DD, Siagian ET, Lasmawati E, Aprillya E, Hanifa F, Lawren J. Recurrent Bartholin's Cyst: Literature Review and Case Report. *Muhammadiyah Medical Journal* 2022; 3: 19-26
- Bringas LAH, Billod JA. Gigantic vulvar masses: a case series of benign large vulvar tumors. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology* 2021
- Aldrich ER, Pauls RN. Benign Cysts of the Vulva and Vagina: A Comprehensive Review for the Gynecologic Surgeon. *Obstet Gynecol Surv* 2021; 76: 101-107.
- Karabük E, Ganime Aygün E. Marsupialization vs Word catheter in the treatment of Bartholin cyst or abscess: retrospective cohort study. *J Turk Ger Gynecol Assoc* 2022; 23: 71-74
- Das S., Shil R. & Dhanpal H., (2024), Bartholin gland cyst and abscess: an updated scenario, *Int J Res Med Sci*. 2024Jan;12(1):334-338.