Effect of Social Media-Based Educational Guidelines on Knowledge and Practice among Women undergoing Hysterectomy

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Abstract

Background: The care of the women undergoing hysterectomy should meet their needs, and this must involve their families. However, care such as the provision of sound information, emotional support, and advice, is often missed. **Aim:** To determine the effect of social media-based educational guidelines on knowledge and practice among women undergoing hysterectomy. **Methods: Subjects and method**: **Design**: Quasi-experimental research design was utilized to achieve the aim of this study. **Settings**: The study was conducted at Mansoura City in Egypt. **Sample**: A purposive sample of 300 women having a hysterectomy was obtained from social media such as Facebook and WhatsApp groups, 2021 which the online Google form spreadsheet was opened from the beginning of June 2021 to the end of June 2021 it was closed. **Two tools used in data collection**: (I): A self-administered questionnaire (pre and post-test format) to assess women's demographic characteristics, obstetric, and medical histories; women's knowledge about hysterectomy (pre and post-test format); and (II): women's practice about hysterectomy (pre and posttest format). **Results:** The present study revealed that there were highly statistically significant differences between women's knowledge and practice regarding hysterectomy pre and post-social media-based educational guidelines implementation. **Conclusion:** the study concluded that a social media-based educational guideline has significant improvements in women's knowledge and practice about hysterectomy. **Recommendations:** The social media-based based educational guidelines should be applied to all women undergoing hysterectomy as a new teaching method for proving health care.

Keywords: Hysterectomy, Knowledge and practice, Social media-based educational guidelines, Women.

Introduction

In obstetrics/gynecology, hysterectomy is a surgical procedure used to treat a variety of illnesses, including uterine prolapse, postpartum hemorrhage that won't stop bleeding, and benign and malignant neoplasms. (D'Arpe et al., 2015) It may be either partial or complete. The hazards of anesthetic and surgical intervention cause it to be regarded as a severe type of maternal morbidity (Geller et al., 2004)

Hysterectomy patients should get treatment that addresses both their physical and psychological needs and this care must involve the patients' families. The provision of sound knowledge, emotional support, and advice, among other forms of psychological treatment, is frequently overlooked. Because the sharing of knowledge and experience would benefit their health, women having hysterectomies frequently express their interest in counseling and joining support groups **(Nausheen et al., 2016)**. Members of the community use information technology tools like social media to spread awareness, educate, and keep track of health-related activities (Kamel Boulos, 2019). Websites and apps that allow users to create and share content or engage in social networking are referred to as social media (Dictionary Social media Oxford Dictionary, 2019). Social media tools are websites and networks like Facebook, Whatsapp, and Facebook Messenger that enable multiple users to connect and communicate simultaneously **(Barrett & Mac Sweeney, 2019).**

With more than 3.2 billion active users worldwide, the number of individuals utilizing social media is steadily growing. According to users and non-users, age brackets, and demographic populations, social media's function differs. Because language and cultural shifts are correlated with technological progress, social media's function is always evolving (Statsita, 2019). Social media is increasingly being used in the healthcare industry to increase communication efficiency, transmit correct information, and spread awareness of resources for support, therapies, and self-care **(Cherak et al., 2020).**

Therefore, gynecological nurses can educate

hysterectomy patients before surgery to boost their sense of self-worth and psychological well-being, as well as to lessen their worries. Additionally, the provision of postoperative care by qualified nursing staff will guarantee the restoration of physiological functions, encourage tissue repair, and enable the identification and management of difficulties (Suresh, 2017). The duty of the gynecological nurse is also expanded to include preparing the patient and her family for discharge through a continuous process that occurs throughout the whole hospitalization stay (**Agency for HealthcareResearchand Quality**, 20

In nursing care, teaching is a method used to assist patients in making their own decisions based on reliable information provided by the nurses. Its goal is to help patients better comprehend the causes of their issues, contributing variables, and available treatment options. The nurse merely offers assistance if needed rather than making suggestions or giving advice. One of the main responsibilities of nurses is teaching, which is extremely crucial when providing nursing care for women who have undergone hysterectomy (**Knight et al., 2016**).

The most vital factor in lowering post-hysterectomy problems and preserving women's lives is the provision of comprehensive nursing care before and after hysterectomy by a qualified nurse (Elsaied et al., 2020). Given that everyone has a social human right to life and health, providing comprehensive pre- and postoperative nursing care is also a moral and ethical concern. Therefore, all women must have access to complete gynecological nursing care, particularly before and after hysterectomy surgery (**Selvanathan et al., 2019**). Hence, this study was conducted to determine the effect of social media-based educational guidelines on knowledge and practice among women undergoing hysterectomies.

Significance of the study:

One of the most frequent obstetrical and gynecological procedures carried out globally is a hysterectomy. It has a high mortality rate. There were 165,107 documented cases of hysterectomy in Egypt (Rathbone & Rathbone, 2019). Hospital records from the same year show that 410 incidents were reported in the governorate of Mansura. Given its widespread occurrence and negative impacts on women's lives, so, the study was aimed to determine the

effect of social media-based educational guidelines on knowledge and practice among women undergoing hysterectomy

Aim of the study

The study aimed to determine the effect of social media-based educational guidelines on knowledge and practice among women undergoing hysterectomy

Research hypothesis:

- Women's knowledge regarding hysterectomy is expected to improve post receiving social media-based educational guidelines

Subjects and Methods:

Research design:

The quasi-experimental research design was utilized to achieve the aim of this study.

Settings:

The study was conducted at Mansura City in Egypt.

Sample:

A purposive sample of 300 women having a hysterectomy was obtained from social media such as Facebook and WhatsApp groups, 2021 which the online Google form spreadsheet was opened from the beginning of June 2021 to the end of June 2021 it was closed. All of the study's participants are educated, have access to a smartphone and the internet, are free of chronic illnesses, and have agreed to engage in the study. Women with any related issues were the only ones who were excluded from the study.

Data collection tool:

Two tools were used to collect the data for the study as the following:

Tool I: A self-administered questionnaire (pre and post-test format) was developed by the researchers after reviewing the related literature and research studies(**Elsaied et al., 2020, Selvanathan et al., 2019& Adugbire & Aziato, 2018**). Itincluded the following three parts:

Part (1): Woman's demographic characteristics: This covered data such as age, education, working status, and residence.

Part (2): A woman's obstetric history involved her gravidity, parity, abortions, etc. The assessment of the current illness included the diagnosis, duration, symptoms, woman's past and present medical history.

Part (3): Woman's knowledge about hysterectomy (pre and post-test format): It was developed by the researchers. It included 50 items about knowledge related to hysterectomy such as meaning, clinical pictures, causes, types, high-risk persons, complications, treatment, and what to expect after hysterectomy through the social media-based educational guidelines by the Whats App and Facebook groups.

Scoring system for women's knowledge about hysterectomy:

Each question received a score of two marks for a valid response, one mark for an incomplete response, and zero points for an incorrect response, for a total of 30 points. Following that, a percentage score was created using these scores. If the percentage score was 60% or higher, the women's knowledge was deemed satisfactory; if it was less than 60%, it was deemed unsatisfactory. Cronbach's Alpha test result, r = 0.84, demonstrated the tool's dependability.

Tool II: Women's practices about hysterectomy (pre and post-test format)

It was developed by the researchers(**Elsaied et al., 2020, Selvanathan et al., 2019&)**. Regular preoperative screening tests, the absence of mechanical bowel preparation before surgery, preoperative fasting instructions, the administration of preoperative intravenous fluids, skin preparation and cleansing, the recording of voiding time and amount as bladder preparation, the removal of makeup, nail polish, dentures, and jewelry, post-procedure tasks, position after hysterectomy, and other factors all contributed to the tool's reliability, complications after the operation and implementation of post-operative nursing care vital signs monitoring, assessment of signs of hemorrhage, incision site and bowel sound, enhancement of early ambulation, provide respiratory care, early urinary catheter removal, enhancement of early fluid intake and oral feeding and measures to relief post-operative pain.

Scoring system for women's practices about hysterectomy:

Each item was scored as one mark for a correct answer, one mark for an incomplete answer, and zero for the wrong answer with a total score of 50 points. Then, these scores were converted to a percentage score. Women's s practices were

considered adequate if the percentage score was 60% or more and inadequate if it was less than 60%. The reliability of the tool was confirmed by Cronbach's Alpha test r = 0.84.

Procedure:

The actual fieldwork was carried out starting from the beginning of June 2021 to the end of June 2021.

Tool validity and reliability:

After a thorough literature analysis, the assessment sheet was first designed in English before being translated into Arabic. Five experts in maternity, gynecology, obstetrics and mental health nursing and medicine evaluated the validity of the data collection instrument for its clarity, comprehensiveness, appropriateness, and relevance. In the current study, the internal consistency approach was used to evaluate the two scales' reliability. With Cronbach alpha coefficients for the second tool of 0.95 and the third tool of 0.96, both showed a good level of reliability.

Social media-based educational guidelines characteristics:

This part is used to assess the effect of social media. It included five statements, was the social media-based educational guidelines content enough, satisfaction with the social media-based educational guidelines did the social media-based educational guidelines improve knowledge post social media-based educational guidelines?

Pilot study:

This was conducted on 10% of the total sample size (30 women undergoing hysterectomy) to ensure the applicability of the tool and the time needed to complete it. Since no modifications were done, the women who participated in the pilot study were included in the main study sample.

Ethical considerations:

To conduct this study, official approval was secured through a letter from the dean of the nursing faculty at Mansoura University. An informed consent form was attached to the online questionnaire's initial page. An overview of the study's goals was provided on the questionnaire's cover page. Before beginning the administered questionnaire, the researcher informed the participants that the study was voluntary, they had the right to refuse to participate, and they had the right to withdraw

from the study at any time, without providing a reason. The study's purpose was explained to the women in the first part. Instructions for completing the questionnaire, as well as the link and quick response (QR) code for the online questionnaire. After reading the consent form, women completed the questionnaire. Moreover, they were assured that their information would be confidential and used for research purposes only.

The study was conducted through initial assessment, planning, implementation, and evaluation phases.

In the initial assessment phase:

To develop the tools for data collection and prepare the educational guidelines, the researchers reviewed the current and past available literature the available textbooks, articles, magazines, and internet searches.

The planning phase:

The researcher gave a complete description of the social media-based educational guidelines. Through this phase, the researcher determined the following points.

The researcher designed the social media-based educational guidelines based on initial assessment information and pertinent literature. The social media-based educational guidelines addressed the meaning, causes, indications, signs, and symptoms of a hysterectomy.

The implementation phase:

The researcher introduces herself, describes the scope and goals of the study, and discusses the possibilities of persuading the women that the program is crucial. Obtaining the verbal informed consent of the patients who accepted the program's terms, establishing an agreement on the number of sessions, their timing, and length, and deciding on the next session's topic. The program's initial orientation consisted of one 60- to 90-minute session each week. Patients who wish to participate in the group discussion on Whatsapp must confirm the privacy and confidentiality of research data, commit to the scheduled dates and times, refrain from making fun of other people's viewpoints, and participate in all required activities.

Online-created Google Form was given to participants to complete and submit. The Google form link (https://docs.google.com/forms/fle/1FALPS

Lsd) was distributed to women via Facebook and WhatsApp groups. Each woman was examined utilizing an online questionnaire as a (pretest) to gauge her demographic characteristics, knowledge about hysterectomy, and practice before the online films and presentation. On the first page of the online survey, women were given information on the purpose of the study, its anticipated results, the tools' contents, and how to respond. The guidebook created by the researchers comprised an introduction, clinical images, causes and risk

factors, kinds of hysterectomy, and management of hysterectomy.

The online administered questionnaire, knowledge, and practice were completed by women on average in about 30 minutes. The goal of the study, the elements of the tools, and the instructions for completing the online questionnaire were all explained to each woman who participated in the study. Those who took part in the pre-test through Facebook and WhatsApp groups received the booklet via Google Forms. To explain hysterectomy to women, the researchers employed pertinent movies, PowerPoint presentations, and posters. Additionally, the researchers produced online audio and video tutorials that described the information in the booklet to improve women's understanding of hysterectomies.

The evaluation phase:

A posttest using the same instruments was used to gauge the impact of the social media-based instructional guidelines. The questionnaire was re-posted to the participants on the Google Form for collecting after one month of sending the booklet, videos, PowerPoint presentation, and posters (post-test).

Statistical analysis:

Data entry and analyses were done using the Statistical Package for the Social Sciences (SPSS Version 20.0). Categorical variables were analyzed using the Chi-squared test. To identify the predictors of improvement of the scores, multiple linear regression analyses were done with the analysis of the variance of the models obtained. The level of statistical significance was considered at $p < 0.05$.

Results:

Table 1 shows that the mean age of women was 46.8 8.6 years and that 60% of them had just basic or intermediate education. Seventy percent of them were stay-at-home mothers, and eighty percent of them resided in cities.

According to **Table 2**, less than two-thirds of the women in the study were grand multigravida (60%), 65% were multipara, and (70%) had previously had abortions. Neoplasms were diagnosed in 40% of the women in the study. In 60% of them, the sickness lasted less than a year. Pelvic pain was the symptom that was reported the most (75%) often. 80% of them claimed that their symptoms had a detrimental effect on their sexual lives.

Table 3 revealed information on the medical histories of the women showing that (50%) of them had undergone surgery previously and were taking regular drugs, (55%) underwent a total hysterectomy, and (60%) received extra treatment, largely hormonal. (85%) of the women who participated in the study stayed in the hospital for fewer than seven days.

There was a highly statistically significant difference between women's knowledge of hysterectomy before and after social media-based educational guidelines implementation, as shown in **Table (4),** and the majority of them have more knowledge about hysterectomy in all items post-social media-based educational guidelines implementation than pre-implementation ($P<0.001$).

Figure 1 demonstrates that, before the implementation of social media-based educational guidelines, the majority of women (89%) had an unsatisfactory level of knowledge regarding hysterectomy, but afterward, (84%) of them had a satisfactory level of knowledge, with a highly statistically significant difference between women's knowledge regarding hysterectomy pre and post social media-based educational guidelines implementation (P0.001).

Figure (2) demonstrates that, before the implementation of social media-based educational guidelines, the majority of women (80%) had insufficient levels of practice regarding hysterectomy, but afterward, (75%) of them had adequate levels of practice, with a highly statistically significant difference between women's knowledge regarding hysterectomy before and after the implementation of social media-based educational guidelines ($P<0.001$).

Table (5): Showed that most of the studied women (97%) reported that the contents were enough and (98%) of them were satisfied with the social media-based educational guidelines.

Table (1): Percentage distribution of the studied women regarding their demographic characteristics (n=300)

Demographic characteristics	Frequency	Percent
Age:		
<40	120	40.0
> 40	180	60.0
Mean± SD		46.8±8.6
Education:		
Read/write	75	25.0
Basic/intermediate	180	60.0
University	45	15.0
Working status:		
Housewife	210	70.0
Working	90	30.0
Residence:		
Urban	240	80.0
Rural	60	20.0

Table (2): Percentage distribution of the studied women regarding their obstetric andgynecological history (n=300)
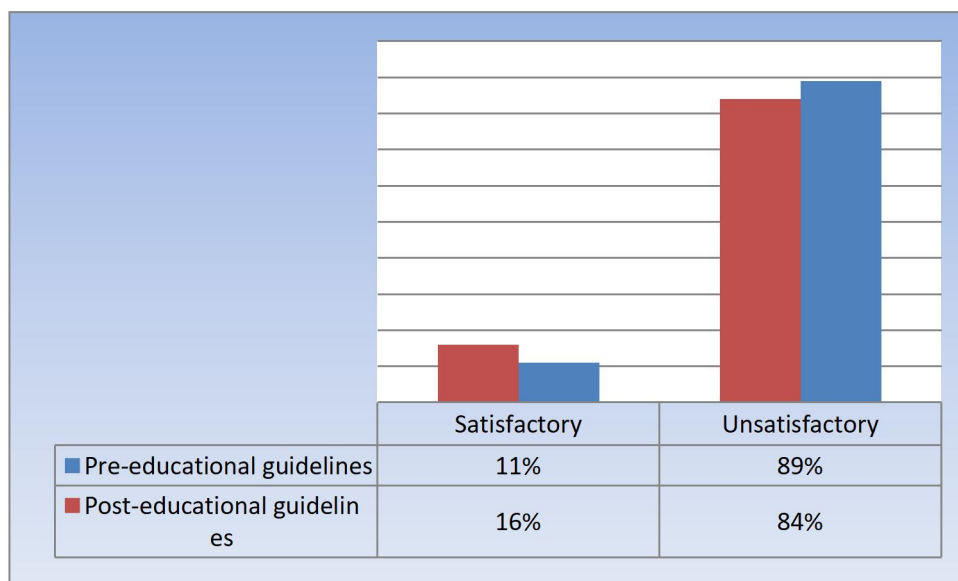
Obstetric and gynecological history	Frequency	Percent
Gravidity:		
Multigravida	120	40.0
Grand multigravida	180	60.0
Parity:		
Multipara	195	65.0
Grand multipara	105	35.0
History of abortions:		
Yes	210	70.0
No	90	30.0
Current gynecological illness		
Bleeding/prolapse	105	35.0
Neoplasm	120	40.0
Benign tumor	75	25.0
Duration of illness in years:		
<1	180	60.0
1+	120	40.0
Symptoms:		
Pelvic pain	225	75.0
General fatigue	210	70.0
Bleeding	207	69.0
Recurrent vaginitis	150	50.0
Dyspareunia (pre)	135	45.0
Dyspareunia (post)	75	25.0
Symptoms had a negative impact on sexual life		
Yes	240	80.0
No	60	20.0

Table (3): Percentage distribution of the studied women regarding their past and present medical history (n=300)

Past and present Medical History	Frequency	Percent
Medical history: Have chronic disease On regular medication Had previous surgery	75 75 150	25.0 25.0 50.0
Intervention: Partial hysterectomy Total hysterectomy	135 165	45.0 55.0
Treatments: Chemotherapy Radiotherapy Hormonal	75 45 180	25.0 15.0 60.0
Hospital stay (days): <7 7+	255 45	85.0 15.0

Table (4): Percentage distribution of the studied woman's knowledge abouthysterectomy pre and post-social media-based educational guidelines implementation

Woman's knowledge	No =(300) Pre-social media-based educational guidelines	Post-social-based guidelines	P-value
Meaning of hysterectomy	75(25.0)	285(95.0)	<0.001*
The clinical picture of hysterectomy	105(35.0)	270(90.0)	<0.001*
Causes of hysterectomy	120(40.0)	273(91.0)	<0.001*
Types of hysterectomy	90 (30.0)	276 (92.0)	<0.001*
High-risk persons of hysterectomy	60 (20.0)	285(95.0)	<0.001*
Complications of hysterectomy	75 (25.0)	270(90.0)	<0.001*
Treatment of hysterectomy	96 (32.0)	255(85.0)	<0.001*
What to expect after a hysterectomy	120(40.0)	261(87.0)	<0.001*

	Satisfactory	Unsatisfactory
■ Pre-educational guidelines	11%	89%
■ Post-educational guidelines	16%	84%

**highly Significance at 0.001 levels

Figure (1): Percentage distribution of the total women's knowledge level about hysterectomy

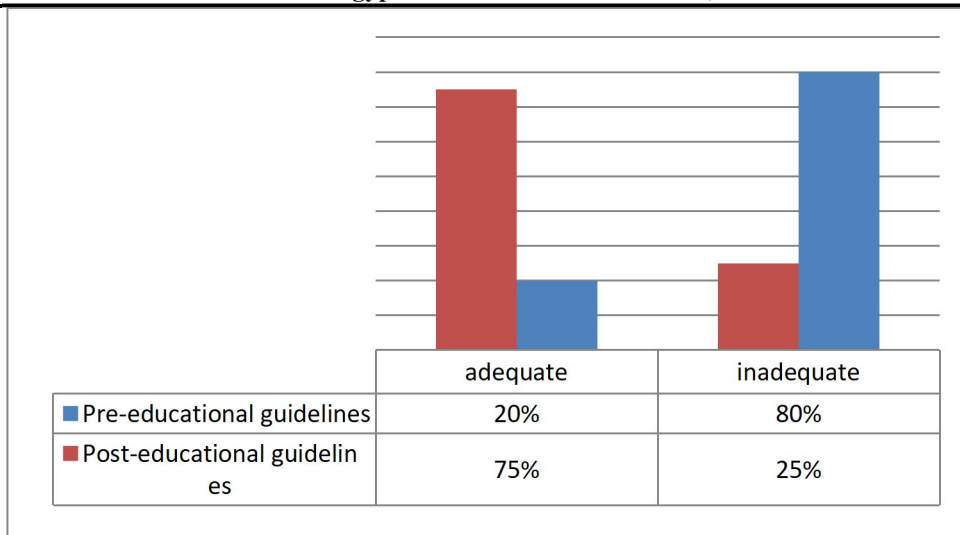|	adequate	inadequate
■ Pre-educational guidelines	20%	80%
■ Post-educational guidelines	75%	25%

Figure (2): Percentage distribution of the total women's practice level about hysterectomy

Table (5): Percentage distribution of the studied women regarding their feedback regarding social media-based educational guidelines (N=300).

Social media-based educational guidelines	N0	%
Is the content enough?		
-Yes	291	97.0
-No	9	3.0
Satisfaction with the social media-based educational guidelines		
-Yes	294	98.0
-No	6	2.0
Did social media-based teaching program improves knowledge		
-Yes	270	90.0
-No	30	10.0

Discussion:

By the time they reach the age of 65, about 37–39% of women have undergone a hysterectomy, with this age group being the most prevalent. Only when women are adequately informed about the reasons and effects of hysterectomy can a good attitude toward hysterectomy prevent many issues. Due to several reasons, the frequency of hysterectomies has grown recently. Depending on the procedure and anesthesia, there may be difficulties. Many patients lacked awareness about hysterectomy, as was seen during the clinical experience. In a research, 66% of female participants said they wanted additional details on the effects of hysterectomy **(Graw & Beyond, 2018).**

The majority of the women in this study, according to the study's findings, were between the ages of 26 and 64, with a mean age of 46.8 and 8.6 years. From the perspective of the researchers, these characteristics are predicted in the sample because they are frequently linked to illnesses that could hint at the need for a hysterectomy. The study conducted by Kjlhede et al. (2019) to evaluate the impact of stress on their recovery following abdominal hysterectomy found that the mean age of women having a hysterectomy was 44.5 years, which is consistent with this conclusion. Thus, from the perspective of the researchers, menopause and related hormonal changes typically begin at this age.

Less than two-thirds of the analyzed women were great multigravida and multipara, according to the results of the current study. According to the researchers, this showed that having a high parity and gravidity rate is a significant risk factor for uterine prolapse, which is one of the most frequent reasons for hysterectomy. This information is Accordingly, Joseph et al. (2016) observed in their study "Clinical Profile of Uterine Prolapse Cases in South India" that grand parity was a major risk factor for uterine prolapse in Indian women.

The current study's findings showed that among the investigated women, neoplasms were the most common diagnosis. These results are similar to this, of **Manicheril et al. (2020)** who studied "Knowledge of Women on Hysterectomy" and the entire subjects reported the preoperative diagnosis was uterine fibroid.

In terms of how having a hysterectomy affected their sexual lives, the majority of the women who participated in the study said that their symptoms had a negative effect. From the researchers' perspective, it demonstrated the urgent necessity for the development of social media-based training programs to support women.

The results of the current study showed that women's understanding of hysterectomy improved when social media-based educational guidelines were implemented, with a highly statistically significant difference between their knowledge before and after this change (P 0.001). This demonstrated the significance of providing women with informational recommendations for hysterectomy via social media.

The majority of the women who participated in the study who were asked about the effect of hysterectomy on their sexual lives said that their symptoms had a negative effect on it. According to the researchers, it demonstrated the urgent need for social media-based training programs to support women.

The results of the current study showed that women's knowledge of hysterectomy improved after the adoption of social media-based educational guidelines (P 0.001). There was also a highly statistically significant difference between women's knowledge of hysterectomy before and after the adoption of these guidelines. This demonstrated the significance of providing women with hysterectomy education through social media.

This outcome is comparable to a study carried out by Mathew in Bengaluru in 2020 to evaluate the knowledge of postoperative care among 30 women receiving abdominal hysterectomy before and after a structured instruction program. According to the study's post-test results, women's awareness of a few key components of postoperative hysterectomy care has increased.

According to the results of the current study, most women had a sufficient level of experience putting post-social media-based educational suggestions into reality. From the researchers' perspective, this outcome shows the value of disseminating social media-based instructional

guidelines, which satisfied the women's needs and gave them the information they needed to manage this disease.

The women who participated in the study reported being satisfied with the social media educational guidelines, saying that the information provided increased their understanding. It demonstrated the positive effects of animated storytelling as an intervention, according to the researchers.

Conclusion:

Based on the results of the present study, the study findings concluded that the results support the research hypothesis in which social media-based educational guideline implementation achieved that a social media-based educational guideline has significant improvements in women's knowledge and practice about hysterectomy.

Recommendations:

Based on the current study results, the following recommendations are proposed:

- The social media-based based educational guidelines should be applied for all women undergoing hysterectomy as a new teaching method for proving health care
- Replication of the current study with a larger sample of women in different settings is required for generalizing the results.

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