

Effect of Social-Platform Nursing Education on Nurses' Knowledge and Practices Regarding End-of-Life Care

1Asmaa Anise Hassan Abdelaal, 2 Alyaa Wahied Mohammed Elseadi, 3 Hala A. Abdelrahman, 4 Amany Sayed Eweas Mohamed , 5 Zeinab Mohammed Shaban AYSHA, 6 Raghdaa Hamid Farahat

1Lecturer at Medical-Surgical Nursing, Faculty of Nursing, Sohag University

2Lecturer of Medical-Surgical Nursing, Medical-Surgical Nursing Department, Faculty of Nursing, Tanta University

3Assistant professor, Critical Care and Emergency Nursing, Faculty of Nursing, Mansoura University

4Critical Care and Emergency Nursing, Faculty of Nursing, Beni Suef University, Egypt.

5Lecturer Critical Care Nursing, Faculty of Nursing, Tanta University

6Lecturer of Medical-Surgical Nursing, Faculty of Nursing, Menoufia University

Abstract

Background: Assessing patients' requirements and providing comprehensive nursing care are crucial aspects of the role nurses play in providing end-of-life nursing care to patients who have life-threatening illnesses and have not responded well to medical therapy. **Aim:** This study aimed to determine the effect of social-platform nursing education on nurses' knowledge and practices regarding end-of-life care. **Subjects and method: Design:** A quasi-experimental research design was utilized to achieve the aim of the current study. **Setting:** The study was applied in the medical and general intensive care units at Sohag University Hospital. **Subjects:** A purposive sample included 100 nurses who work in the previously listed setting were included in the study. **Tools for data collection:** Tool one: structured Interview questionnaire and developed after reviewing related literature and consisted of two parts. Part one: Nurses' personal data as nurses; Part two: Nurses' knowledge questionnaire and Tool two: Performance checklist used to assess nurses' level of practice regarding end-of-life care. **Results:** The study result portrayed that knowledge and practice pre and post-two months of social-platform nursing education; there was a statistically significant difference. **Conclusion:** Social-platform nursing education was effective and significantly improved nurses' knowledge and practice. **Recommendations:** We recommend social-platform nursing education to improve nurses' knowledge and practices regarding end-of-life care should be encouraged.

Keywords: End-of-life care, Nurses' knowledge, and practices, Social-platform nursing education.

Introduction

Regardless of country, nationality, or religion, death is one of the most intensely emotional experiences that anybody can have. Death, although a natural process, is also an agonizing experience for people and their families, with potential effects on the body as well as the mind. It is stated that caring for patients at the end of their lives might provide difficulties for nurses and nursing students, particularly when it is their first experience with death (Wang et al., 2022).

The care of patients in critical condition, preventing complications, and tending to

the dying has become a greater responsibility for nurses (particularly old-age patients). A dying patient is characterized as a sick individual with a severe illness for which there is no significant treatment that can extend their life expectancy. End-of-life care, or EOL care, is given to patients who are dying or in life-threatening situations. This includes geriatric patients, or elderly people over 60, who have numerous psychological, emotional, and spiritual issues, as well as their relatives. According to Zahran et al. (2022), the goal of end-of-life care was to lessen patients' pain, suffering, and other symptoms.

Nursing students may feel unprepared to offer end-of-life care (EoLC) as a result of the different ways that EoLC can impact them. Nursing students and nurses were concerned about the feelings and reactions they would have when confronted with a deceased person, as well as the anguish of not knowing how to help patients and their families. According to **Wang et al.'s (2022)** prior study, nurses' negative attitudes, such as their dread and anxiety when giving nursing care, may have a negative impact on the quality of care they provide to patients who are dying.

Because they are uncertain about mortality, nurses may avoid issues connected to death, acceptance of death, and palliative care. Because of this, working with patients who are dying, as in palliative care (PC) institutions, necessitates a greater level of knowledge and acceptance of death and the dying process. This means that during their undergraduate and internship courses, nurses must acquire the necessary knowledge and skills, and they must not shy away from or minimize subjects connected to death and dying (**Komariah et al., 2021**).

Critical patients, especially elderly patients who are dying and their families, require emotional nursing care from nurses. The families' wishes and beliefs should guide the planning of EOL nursing care. But to be able to give the dying patients and their families the care and support they require, the ICU nurse must be kind to them. The nurse must be aware of the patient's attitudes and anxieties toward dying to support them in adjusting. Moreover, families require a clear explanation of how to reduce their dread and worry during the dying process (**Gillan et al., 2024**).

Current research demonstrates how crucial it is to offer excellent end-of-life care to facilitate a good death. A decent death necessitates a high level of expertise from critical care nurses, including effective

symptom management and patient and family-centered care. To provide EOL care in a curative setting, critical care unit nurses must adhere to strict evidence-based guidelines (**Berndtsson et al., 2019**). Only 14% of people worldwide who require end-of-life care receive palliative care, according to data from the World Health Organization. In intensive care units (ICUs), many such individuals receive treatment. Palliative care and intensive care are often provided together because of the excellent life support technology in ICUs. Therefore, current critical care should be balanced between palliation and critical curative conditions (**Grubb & Arthur, 2021**).

Patients who are dying require palliative care. It can be challenging to identify patients who may be nearing the end of their life and delicate to include family members in quality evaluation during this time. Patients may also face challenging symptoms like pain, trouble breathing, and confusion. Because attitudes have an effect on the quality of nursing care, critical care nurses' attitudes are important for developing competence. Achieving successful educational outcomes requires evaluating and enhancing nurses' attitudes toward caring for patients who are dying. To ensure that terminally ill patients receive the finest care possible even in their final days, all healthcare professionals should complete education programs that focus on enhancing specific competencies for ongoing, comprehensive care (**Alwawi et al., 2022**).

By evaluating patients' needs and offering services to both the families and the severely sick patients particularly the elderly nurses play a crucial part in the provision of end-of-life care to patients with life-threatening illnesses. Importantly, it is difficult to coordinate all that has to happen, and there is only one chance to provide quality care after death. As such, the guidelines represent a significant publication that confirms a procedure that

all parties involved can use to guarantee that the experience of persons grieving the loss of a loved one is positive (**Grubb & Arthur, 2021**).

Utilizing social media sites like Facebook, Instagram, WhatsApp, Snapchat, and Twitter, one can overcome obstacles related to in-person modes and offer ongoing support and efficient communication. Social media is viewed by nurses as a resource for information relevant to diseases, prompt and effective communication with others, and exchanging medical information with a patient group going through similar problems (**Peng et al., 2022**).

To reduce the spread of disease among individuals, contemporary technological advancements and protocols are being employed. These include staying at home, restricting access to assisted living facilities, and avoiding public gatherings. To educate themselves, spread awareness, and keep track of health-related events, members of the community use information technology, such as social media (**Podina et al., 2019**).

The term "social media" refers to websites and applications that let users create and distribute content or take part in social networking. Social media tools are communities and platforms like Facebook Messenger, WhatsApp, and Facebook that let several individuals connect and communicate at once. With over 3.2 billion active users worldwide, the number of individuals utilizing social media is constantly growing. Depending on age groupings, demographic categories, and users versus non-users, social media plays different roles. Social media's function is always evolving since linguistic and cultural shift patterns are connected to technical advancements. Social media usage in the healthcare industry is growing in popularity as a means of enhancing communication, spreading factual information, and increasing

awareness of treatments, resources, and self-care options (**Claes et al., 2020**).

Nurses are a valuable source of information within their social networks and can play a significant role in education through clinical education programs and community outreach initiatives that are appropriate for our social and cultural context (**Dawdy, 2018**). One of the most recent methods of teaching is electronic learning. To provide educational content, it combines many tools and technology. Compact discs, computer simulation modeling, multimedia software, complex networks like the internet and extranet, electronic media, and computer simulation are only a few examples of the tools and technology listed here. Social-platform education is a development of electronic education that combines many media to enable learner-software interaction, fostering creativity and improving educational efficacy (**Lawn et al., 2019**).

Enhancing nurses' knowledge and abilities is the primary objective of social media education. People with low reading levels can easily apply social-platform education, which is one of its benefits. Research has been conducted on the use of social media platforms for patient education regarding chronic conditions, such as heart failure and surgery (**Abbasi et al., 2018**), prostate cancer radiation preparation (**Dawdy et al., 2018**), and lumbar disc surgery (**Zarei et al., 2019**).

Significance of the study

The technological revolution has created new opportunities to increase access to therapeutic interventions for mental health issues. According to **Podina et al. (2019)**, there is growing evidence that technology-delivered therapy is beneficial for various health conditions. The potential cost savings and flexibility in terms of location, time, and expense of online therapy may make it widely adopted (**Song, et al., 2019**). According to **Di Tella et al. (2019)**,

individuals with chronic illnesses can also integrate pathology management into their regular social lives through technology-enabled education provided at home.

Lack of appropriate experience and understanding regarding end-of-life care presents numerous obstacles for ICU nurses providing EOL care. Inadequate environmental limitations on end-of-life care are caused by hospitals and ICUs not giving ICU nurses a clear policy and roles pulse. The best nursing intervention for the patient who is dying is a source of constant contention for the staff. For all these reasons, the purpose of the current study is to ascertain how nurses' knowledge and practices about end-of-life care are impacted by nursing education provided through social platforms.

Aim of the study:

This study aimed to determine the effect of social-platform nursing education on nurses' knowledge and practices regarding end-of-life care through:

- Assessing nurses' knowledge regarding end-of-life care.
- Assessing nurses' practices regarding end-of-life care.
- Developing and implementing social-platform nursing education according to nurses' needs.
- Evaluating the effect of the social platform nursing education on nurses' knowledge and practices regarding end-of-life care

Research hypotheses:

H1: Nurses' knowledge levels regarding end-of-life care are expected to improve post-social-platform nursing-education application than pre- application.

H2: Nurses' practice levels regarding end-of-life care will improve post-social-platform nursing-education application more than pre-application.

Subjects and methods

Research design:

A quasi-experimental research design was utilized to achieve the aim of the current study. According to **Creswell (2012)**, a quasi-experimental design is empirical research that quantifies the causal effect of an intervention on the population it is intended for.

Setting:

The study was applied in the medical and general intensive care units at Sohag University Hospital. The study was applied in the previously selected settings because of the high prevalence of adult patients in the selected setting, as well as the fact that it serves the most populous region of the country.

Subjects:

A purposive sample included 100 nurses who worked in previously listed settings were included in the study and selected according to the following criteria: Inclusion criteria: Can use internet, agree to participate in the study. Exclusion criteria: refuse to participate in the study.

Tools of data collection:

Two tools were used for data collection for the study as follows:

Tool one: A structured Interview questionnaire was developed after reviewing related literature (**Claes et al., 2020; Grubb & Arthur, 2021; Alwawi et al., 2022**) and consisted of two parts.

Part one: Nurses' data as nurse's age, sex, educational level, years of experience, and previous training sessions).

Part two: Nurses' knowledge questionnaire: utilized to evaluate nurses' understanding of the theoretical underpinnings of the best EOL nursing care for patients as Hospice care should only be used when necessary, Uses for morphine, the way it treats pain, Hospice care, the concept of palliative care, grieving, the use of adjuvant therapies, keeping family members by the patient's bedside until death happens, and palliative care goals palliative care refers to the role of nurses in providing supportive and

conservative measures for patients who are dying and their families.

Scoring system:

There were 26 brief (closed-ended) questions in all. Every right response received a point (1), while incorrect responses received a point (0). The questionnaire's overall score was (26). A total score of 75 percent or more was deemed "satisfactory," while a score of 75 percent or lower was deemed "unsatisfactory."

Tool two: Performance checklist used to assess nurses' level of practice regarding EOL care. After a study of relevant literature, a devised tool was used to assess nurses' effectiveness in providing EOL care for patients who were dying. It was named A: Comfort measures and had seven steps: sit quietly, reduce confusion by minimizing distractions, Remind the person gently of reality; do not dispute if their world differs from yours. Listen to the person in silence. If you want to communicate with someone who can't react, use touch. Discuss relaxing techniques with someone. Medication for extreme pain is frequently used in practice. B: There were four phases for communication, and there were eight for hygienic care, including patient assessment, skin washing and cleansing, using lotions and ointments, and using fake tears and ointments, Maintenance of a body temperature, Prevention of pressure ulcers, and Hair care.

Scoring system:

Every step that was completed correctly received a score of 1, but any step that was incomplete or incorrect received a score of 0. Performance was graded 19 overall. Overall, the result was categorized as

- Competent if the score $\geq 85\%$ of the maximum score.
- Incompetent if the score is $< 85\%$ of the maximum score.

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

Constructing the data collection techniques, it involved studying previously published and currently available literature as well as theoretical understanding of many study components through the use of books, papers, the internet, journals, and magazines.

Validity and reliability of the tool:

A panel of five expert academics, comprising two professors in the field of acute care and three professors in medical-surgical nursing, assessed the content validity of the tool. By the panel's ruling, no changes were made to guarantee content appropriateness or clarity. Cronbach's alpha test was used to evaluate the first tool's reliability (α was 0.965), while the second tool's reliability was 0.97.

Administrative design:

To conduct this study and secure authorization for data collection, a letter from the Faculty of Nursing to the administrators of the department that had been previously chosen served as administrative authorization.

Ethical considerations:

Both the Faculty Dean and the Research Ethical Committee sent formal correspondence. The directors of the previously chosen locations met with the researchers before the study started to discuss the study's purpose and secure their cooperation. First, each participant's written agreement was obtained, and the nurses were informed of the study's goals. They were told that they might leave the study at any moment, for any reason, and that participation in it was entirely optional. The participants were informed that the information they provided would be kept private and used exclusively for study.

Pilot Study:

To assess the feasibility and applicability of the research procedure, a pilot study was carried out on 10 nurses, or 10% of

the patients. The study comprised nurses who were involved in the pilot project.

Fieldwork:

- Two days a week, from 9 a.m. to 1 p.m., the researchers visited the previously chosen locations. Upon meeting the patients, they introduced themselves to the participants and explained the purpose of the study. Six months, from July 1st to December 31st, 2023, saw the collection of data. The interview tools took about fifty to sixty minutes to complete.

The collection of data was done through three phases:

I- Assessment phase:

During this stage, the researchers gathered information from the nurses under study. It started with a structured interview questionnaire that asked about personal information, degree of knowledge, and level of practice related to end-of-life care. For each nurse, the questionnaire took between 25 to 35 minutes to complete.

II- Planning phase:

In this stage, nurses were briefed by the researchers on the advantages of the social platform nursing education, which allowed patients to access the materials via feedback groups and WhatsApp applications.

Based on an analysis of the knowledge and practice of the actual educational nurses in the pretest, social-platform nursing education was created. Written in straightforward Arabic, the instructional booklet's content was in line with previously published works in the field.

To communicate with the researchers via a WhatsApp group, the researchers asked each nurse for their phone number and evaluated whether internet access was available.

The researchers created a WhatsApp group to facilitate daily communication with nurses and to share social media nursing education resources, such as booklets, videos, and illustrative images.

III- Implementation phase:

End-of-life care information was included in the social media nursing education package. A video that included sound bites and images about end-of-life care was used to teach viewers. Through the WhatsApp group application of the social platform that provides nursing education for end-of-life care, participants were enlisted in the study and given a copy of the film. A checklist of reminders was given to them. They also received weekly phone calls reminding them to use the social media site for nursing education. The study instruments were completed by the participants both before and two months after the study intervention started. The researchers put up posters, PowerPoint slides, and movies that were pertinent to end-of-life care. Additionally, the researchers created audio and videos for the internet that clarified the booklet's contents to enhance nurses' knowledge and practice regarding end-of-life care.

Once the WhatsApp group was established, the researchers sent voice and text messages explaining the goals of the social media nursing education resources.

The researchers decided to set up a WhatsApp group chat session and post the contents of every social media nursing education part on a Sunday of each week. To facilitate candid conversation among all group members, nurses were also urged to arrive on time for this meeting.

The researchers also sent daily communications detailing important guidelines and details for interacting with patients throughout end-of-life care.

By sending brief health messages every day regarding their experiences with end-of-life care, the nurses were encouraged to interact with one another.

IV- (Evaluation phase):

The evaluation was conducted by interviewing nurses post two months by using the same tools used in the pre-test to

determine the effect of social-platform nursing education on nurses' knowledge and practices regarding end-of-life care

Statistical design:

The collected data was tallied, sorted, arranged, and examined. SPSS for Windows, version 18, was used to show the data as tables and figures. Descriptive statistics were used to portray the data as means and standard deviations for the qualitative variables and frequencies and percentages for the quantitative variables. The t-test—a comparison of the two means—was employed. The significance test of chi-square (χ^2) was applied. P-value <0.05 was used to determine statistical significance.

Results:

Table (1) revealed that the mean age of nurses was 29.79 ± 6.88 years. Half (50%) of nurses had a Technical Institute of Nursing. The highest percentage (60%) of nurses were working in the Medical Intensive Care Unit, while (40%) of them worked in the general Intensive Care Unit.

Figure (1): Shows that 84% of the studied nurses didn't attend previous training about end-of-life care.

Figure (2): Illustrates that 83% of the studied nurses **reported that their source of knowledge about end-of-life care was doctors.**

To evaluate the knowledge mean scores regarding end-of-life care among nurses pre and post-social-platform nursing education, **table 2** proved that, there was a statistically significant difference and improvement between knowledge mean scores pre and post-social-platform nursing education ($p < 0.001$).

Figure (2): Shows the nurses' total level of knowledge regarding **end-of-life care** pre- and post-**social-platform nursing-education**. According to the study, 20% of the nurses participated in the pre-**social-platform nursing education** phase and had a satisfactory total level of knowledge regarding **end-of-life care**. This knowledge improved after the **social-**

platform nursing education was implemented and increased to 90% among the studied nurses.

Table (3): shows that there was a statistically significant difference and improvement between practice mean scores pre and post-social-platform nursing education ($p < 0.001$).

Figure 3 shows the pre- and post-**social-platform nursing-education** nurses' total practice level **regarding end-of-life care**. Following the **social-platform nursing education**, 90% of the studied nurses exhibited a competent practice level, compared to only 20% before the **social-platform nursing education**.

Table (4) showed that there was a statistically significant correlation between the age and level of education of Nurses regarding **end-of-life** care and their level of knowledge. ($p < 0.001$). However, there were no statistically significant correlations between the level of education and age of nurses and their level of knowledge ($p > 0.05$) respectively.

Table (5) indicated that the total knowledge scores of nurses and their practice had a highly significant positive correlation ($P = 0.004$) in pre and post-social-platform nursing education.

Table (6): Showed the social-platform nursing-education characteristics, it was noticed that 98% of the nurses reported that social-platform nursing-education content was enough, 95% of them were satisfied with the social-platform nursing-education, 98% of them stated that social-platform nursing-education improve their knowledge and practices. Concerning the advantages of social-platform nursing education, 98% of the studied nurses mentioned that they can

participate actively and can reach it at any time and place. Regarding disadvantages of the social-platform nursing-education,

97% of them reported that interruption of the internet was a common disadvantage.

Table (1): Personal data of the studied Nurses (n=100)

Personal data	NO	%
Nurses' age/years:		
- 20-<25	20	20.0
- 25 - <30	45	45.0
- 30-35	25	25.0
- > 35	10	10.0
Mean +SD	29.79 ±6.88	
Nurses' level of education:		
-diploma	38	38.0
-Technical Institute	50	50.0
-Bachelors	12	12.0
Area of specialty:		
-general ICU	40	40.0
- Medical ICU	60	60.0

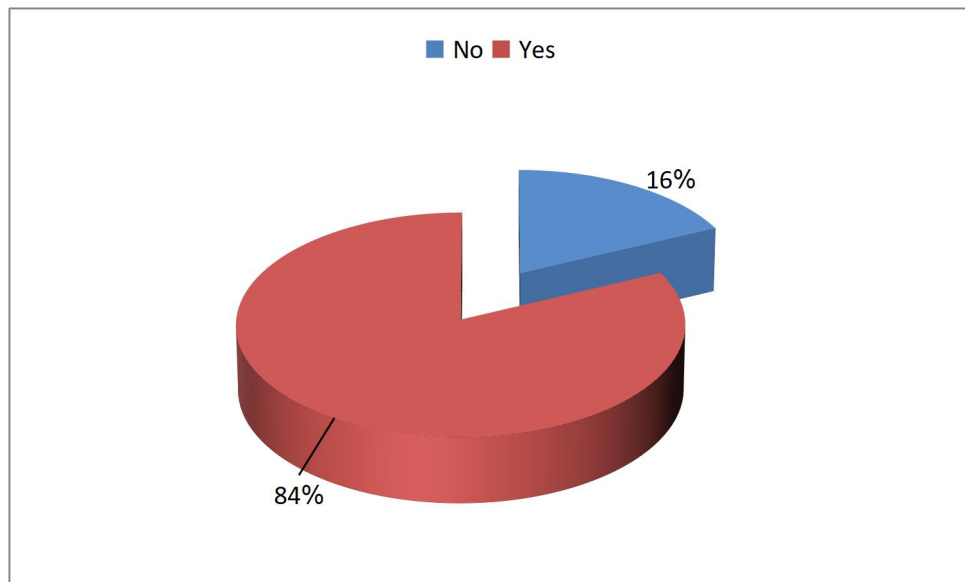


Figure (1): Nurses' distribution regarding previous training about end-of-life care (n=100).

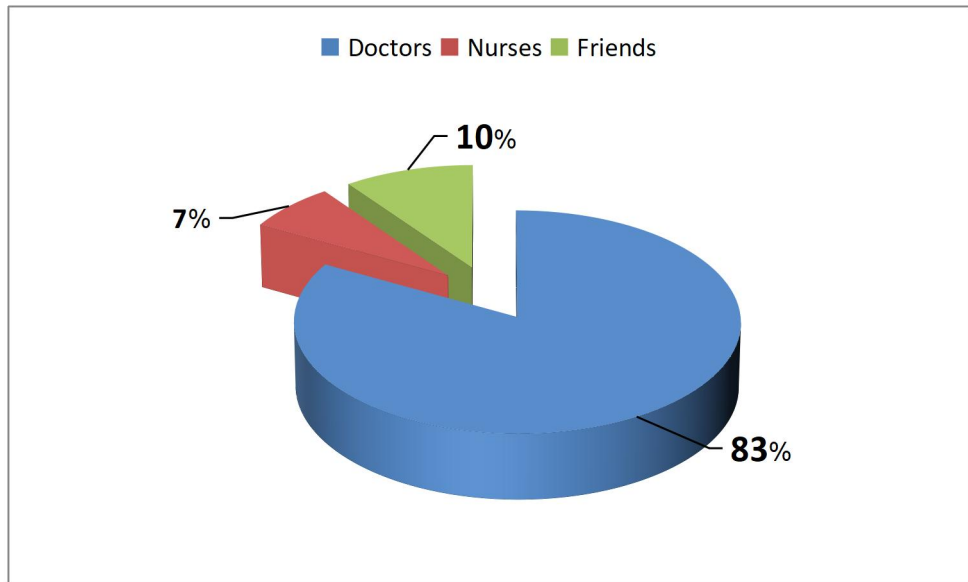


Figure (2): Nurses' distribution regarding source of knowledge about end-of-life care (n=100).

Table (2): Comparison between the Total Mean Score of knowledge regarding end-of-life care among the studied Nurses pre and post-social-platform nursing-education (n=100)

Items	Pre-test	Post-test	t-test	P -value
Total Knowledge	10.89 ±2.78	19.77±3.33	7.56	<0.001

* Significant $p \leq 0.05$ ** Highly Significant $p \leq 0.001$

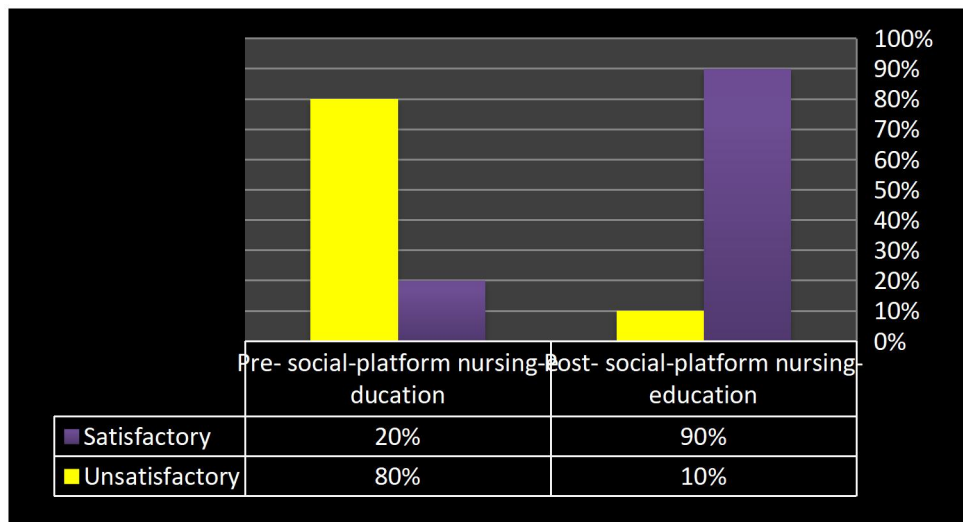


Figure (3): Total knowledge levels of the studied Nurses regarding end-of-life care pre and post-social-platform nursing-education (n=100)

Table (3): Comparison between the Total Mean Score of practices regarding end-of-life care among the studied Nurses pre and post-social-platform nursing-education (n=100)

Items	Pre-test	Post-test	t-test	P -value
Total Knowledge	8.33 ±2.25	16.56±2.78	8.44	<0.001

* Significant $p \leq 0.05$ ** Highly Significant $p \leq 0.001$

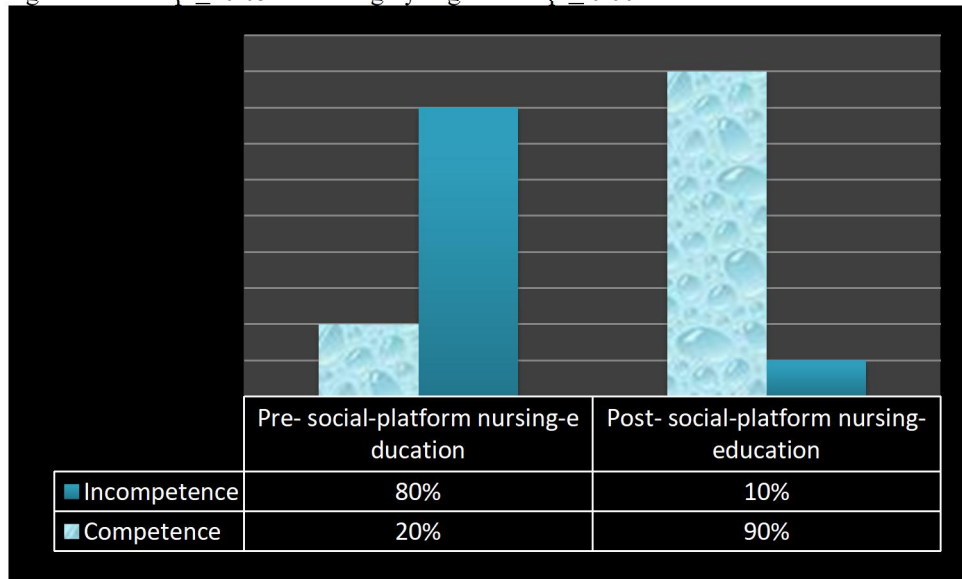


Figure (4): Total practice levels of the studied nurses regarding end-of-life care pre and post-social-platform nursing-education (n=100).

Table (4) Correlation between age, level of education, and total knowledge and practice regarding end-of-life care among the studied nurses

Total Knowledge	Age	Level of Education
R	.049	.019
P	>0.05	>0.05
Total practice		
R	-.356	-.337
P	>0.001	>0.001

Table (5): Correlation coefficient between total nurses' knowledge and practice scores regarding end-of-life care pre and post-social-platform nursing-education

Items	Practice			
	Pre		Post	
	R	P	r	P
- Total knowledge pre- pre-social-platform nursing-education	0.039	0.817(N.S)	---	---
- Total knowledge post- social-platform nursing education	---	---	0.423	0.004

Table (6): The studied nurses distribution according to their feedback about social-platform nursing education (N=100).

Social-platform nursing-education characteristics	N0	%
Content is enough		
-Yes	98	98
-No	2	2
Satisfied with social-platform nursing-education content		
-Yes	95	95
-No	5	5
Social-platform nursing education improve knowledge and practices		
-Yes	98	98
-No	2	2
Advantages of social-platform nursing education:		
- Active participation	96	98
-Participants can get a chance for live chat.	98	96
-Participants can reach it at any time and place.		98
Disadvantages of social-platform nursing-education		
- interruption of Internet	97	97
- Participants can not join a social media with a large sample	3	3

Discussion:

Because they spend the most time with patients and are in close contact at the bedsides, nurses are essential to the EOL care provided to terminally ill patients and their families (Khraisat et al., 2021). The results of the current study revealed that the mean age of nurses was 29.79 ± 6.88 years. Half of the nurses had a Technical Institute of Nursing. Three-fifths of nurses worked in Medical Intensive Care Units (Smith et al., 2018).

These findings are in line with those of Salime et al. (2019), who discovered that the majority of the study group subjects were female, with a mean age of (27.8 ± 5.9) less than thirty, and that they were untrained in providing end-of-life care. Also, the majority of nurses had diploma education. Furthermore, Hanan et al. (2018) discovered that over half of the study

samples were diploma nurses, and the majority of study subjects were female and under thirty years old, with a mean age of (24.21 ± 4.38) . This result is consistent with their findings. Furthermore, according to Gehan et al. (2019), almost two-thirds of nurses working in medical and oncology intensive care units have less than thirty years of experience, more than one-third of them have diploma education, concerning years of experience, more than one-half have (5) years and more. This study supports the findings of Soliman (2019), who reported that 51.7% of the participants were female and 43.3% of the participants were in the 20–30 age range with a mean score of 26.05 ± 2.16 years. According to Rattani et al. (2020), 83.3 percent of the participants in this study were female.

According to the study's findings, the majority of the nurses under investigation had never had any prior end-of-life care training. This finding is consistent with Muhamad et al.'s (2018)

assertion that the majority of nursing students lacked training or experience in providing care for terminally ill patients. They've all attended prior training courses on end-of-life care. Furthermore, this conclusion is at odds with that of **Salime et al. (2019)**, who discovered that the majority of participants in their study had ten or more years of experience and had not attended any end-of-life nursing care-related training sessions. This reflects the nurses' desire to further their careers and their understanding of the worth and significance of providing end-of-life care and it is important to educate them about end-of-life care.

According to the current study's findings, most of the nurses who were surveyed said that doctors were the primary source of their information regarding end-of-life care. According to the researchers, the informed source is how the examined nurses obtain information.

According to the current study's findings, knowledge mean scores before and after social media nursing education improved and differed statistically significantly. Researchers concluded that social media platforms had a positive impact on nursing education. The current study's findings also align with those of **Wu et al.'s (2018)** investigation into the "Effectiveness of an accessibility-enhanced multimedia informational educational program was effectiveness." This outcome was corroborated by **Li et al. (2019)**, who explained that a majority of the students (54.1%) required better education on end-of-life care. This result also supports the findings of **Rattani et al. (2020)**, who claimed that after instruction, pupils' knowledge increased noticeably.

Additionally, **Laird's (2020)** results showed a statistically significant increase in the knowledge score from the pre-test ($M = 71.83$, $SD = 22.04$) to the post-test ($M = 81.75$, $SD = 15.68$). This is also in line with **Tamaki et al.'s (2019)**

findings that the students' knowledge improved significantly after instruction. This might be because nurses need to become more knowledgeable about end-of-life care to support patients and families more effectively.

The current study's findings showed that, following their education on social media platforms, nurses' overall level of knowledge about end-of-life care had improved. This finding contrasts with that of **Kassa et al. (2019)**, who discovered that over two-thirds of respondents understood what palliative care was and agreed that it was provided to patients whose illnesses were worsening.

This outcome is consistent with **Hanan and associates (2019)**, This could be the result of a lack of incentives for nurses to advance their education and training, particularly for those who have worked in the intensive care unit for several years. ICU nurses were overworked, overburdened with responsibilities, and required longer work hours due to the increased patient load. Furthermore, the bulk of the sample under study consists of diploma nurses, and a number of them lacked sufficient knowledge regarding how to care for a dying patient in an intensive care unit (ICU). This aspect of patient care is not covered in the nursing curriculum at most Egyptian colleges of nursing.

Similar findings were made by **Samuel et al. (2019)**, who discovered that over 50% of nurses had good knowledge of palliative care. According to **Hanan, et al. (2019)**, more than half had inadequate knowledge, which is consistent with this conclusion. Though **Won (2019)** discovered that most of the investigated sample had an unsatisfactory understanding of end-of-life care, and found that their findings differed from this one.

The present study's findings demonstrated a statistically significant difference and improvement in the mean scores for practices before and after social media nursing education. The researcher believes that this could be because of how well social media platforms teach nursing.

Pre- and post-social-platform nursing education nurses' overall practice level about end-of-life care was demonstrated by the study's findings. Compared to just one fifth of the researched nurses prior to the social-platform nursing education, the majority of them demonstrated a competent practice level after the program. The "Effectiveness of multimedia based on education and traditional methods on life quality and self-esteem of hemodialysis patients" is evaluated by **Feizalahzadeh et al. (2019)**, who found that multimedia-based education significantly improves patients' quality of life. According to the researchers, this elucidates the necessity and significance of providing nurses with end-of-life care education via social platforms.

The study findings indicate a statistically significant link between the age and educational attainment of nurses and their degree of knowledge concerning care during end-of-life. This is consistent with research by **Amir et al. (2019)**, which discovered a substantial correlation between nurses' practices regarding palliative care and their educational attainment.

The study's objective was successfully achieved, according to the researchers, who also noted that the social platform nursing education had a positive impact and demonstrated the advantages of delivering it to nurses. It satisfied their needs and gave them the knowledge they needed to manage the illness.

According to the current study's findings, there was a strong favorable association between nurses' practice

before and after receiving social media-based nursing education and their overall knowledge ratings. According to the researchers, this demonstrated how social media platforms for nursing education had a favorable impact on nurses' level of knowledge. This is explained by the fact that it is deemed concerning since it indicates a lack of health information on this issue and highlights the need for initiatives to enhance health information through intervention.

This demonstrates the positive impact of social media nursing education on nurses' knowledge and practices and shows that they are eager to learn new things and expand their expertise. It also underlined how closely knowledge and practice are related, with knowledge acquisition leading to improved practice.

It was observed that the majority of nurses expressed satisfaction and felt that the social platform nursing education provided was sufficient when it came to its qualities. The researchers speculate that this result could be attributed to the fact that the social platform nursing education materials were created using clear, concise Arabic and included appropriate images and videos for clarity. They also used one of the most popular and straightforward approaches available today: social-platform nursing education.

The current study's findings are consistent with the study hypothesis, which showed that social media platforms for nursing education can enhance nurses' expertise and performance. This finding is consistent with that of **Sarabia-Cobo et al. (2019)**, who discovered a rise in the use of the created smartphone application.

Conclusion:

The social platform nursing education has proven to be an effective means of improving nurses' knowledge and practice as demonstrated by the current study's results. Also, the total knowledge and practice score of the pre-and post-social-

platform nursing education of end-of-life care groups showed a highly statistically significant difference (P-value <0.001).

Recommendations:

Based on the current study's findings, the following suggestions were made:

- A social platform for nursing education to improve nurses' knowledge and practices regarding end-of-life care should be encouraged.
- End-of-life care-related pamphlets and booklets ought to be printed and stored in medical facilities.
- The research may be repeated with a large sample in an alternative environment, allowing the conclusions to be generalized.

References:

- Abbasi, A., Najafi-Ghezeljeh, T., Ashghali-Farahani, M., & Naderi, N. (2018): Effects of the self-management education program using the multi-method approach and multimedia on the quality of life of patients with chronic heart failure: A non-randomized controlled clinical trial. *Contemp Nurse*; 54:409-20.
- Alwawi, A.A.; Abu-Odah, H.; & Bayuo, J. (2022): Palliative Care Knowledge and Attitudes towards End-of-Life Care among Undergraduate Nursing Students at Al-Quds University: Implications for Palestinian Education. *Int. J. Environ. Res. Public Health*, 19, 9563.
- Amir, H., Seyed, Z., Ali, A., Ahmad, J., & Gholamreza, M. (2019): Dataset on the nurses' knowledge, attitude, and practice towards palliative care Contents lists available at Science Direct, *journal homepage*, www.elsevier.com/locate/dib.
- Berndtsson, I.E.K.; Karlsson, M.G.; & Rejnö, Å.C.U. (2019): Nursing Students' Attitudes toward Care of Dying Patients: A Pre- and Post-Palliative Course Study. *Heliyon*, 5, e02578.
- Claes, J., Cornelissen, V., McDermott, C., Moyna, N., Pattyn, N., Cornelis, N., Gallagher, A., McCormack, C., Newton, H., Gillain, A., Budts, W., Goetschalckx, K., Woods, C., Moran, K., & Buys, R. (2020): Feasibility, Acceptability, and Clinical Effectiveness of a Technology-Enabled Cardiac Rehabilitation Platform (Physical Activity Toward Health-I): Randomized Controlled Trial. *Journal of Medical Internet Research*; 22 (2): 1-19.
- Creswell, W. (2012): Educational research: Planning, conducting, and evaluating quantitative and qualitative research (4th Ed.). *Boston, MA*: Pearson.
- Dawdy, K., Bonin, K., Russell, S., Ryzynski, A., Harth, T., & Townsend C. (2018): Developing and evaluating multimedia patient education tools to better prepare prostate-cancer patients for radiotherapy treatment (Randomized Study). *J Cancer Educ*; 33:551-6.
- Di Tella S., Pagliari C., Blasi V, Mendoza L., Rovaris M., & Baglio F. (2019): Integrated Telerehabilitation Approach in Multiple Sclerosis: A Systematic Review and Meta-Analysis. *J Telemed Telecare*. doi: 10.1177/1357633X19850381.
- Di Tella S., Pagliari C., Blasi V, Mendoza L., Rovaris M., & Baglio F. (2019): Integrated Telerehabilitation Approach in Multiple Sclerosis: A Systematic Review and Meta-Analysis. *J Telemed Telecare*. doi: 10.1177/1357633X19850381.
- Feizalazadeh, H., Zagheri, A., Tafreshi, M., Moghaddasi, H., Ashghali, S., Farahani, M., Zareh, Z., & Khalilzadeh, M. (2019): Effectiveness of multimedia based on education and traditional methods on life quality and self-esteem of hemodialysis patients. *J Holist Nurs Midwifery*; 26:69-78
- Gehanm A., El-Hakim, Y., & Abd El-Aziz, A. (2017): Critical Care Nurses' Knowledge, Practice, Obstacles and Helpful Measures Towards Palliative Care for Critically Ill Patients. *American Journal of Nursing Science*; 6(4):293-303. doi: 10.11648/j.ajns.20170604.13.
- Gillan, P.C.; van der Riet, P.J.; & Jeong, S. (2024): End of Life Care Education, Past and Present: A Review of the Literature. *Nurse Educ. Today* 2024, 34, 331–342.
- Grubb, C.; & Arthur, A. (2021): Student Nurses' Experience of and Attitudes

- towards Care of the Dying: A Cross-Sectional Study. *Palliat. Med*, 30, 83–88.
- Hanan, E., Zaghla, M., Yossef, D., & Ali, D. (2018): Knowledge and Practice of Nurses about End of Life Nursing Care for Critically Ill Patients, Cairo University Hospital: A Suggested Intervention Protocol *Med. J. Cairo Univ*; 82(1):189-198. www.medicaljournalofcairouniversity.net
 - Kassa, H., Murugan, R., Zewdu, F., Hailu, M., & Woldeyohannes, D. (2019): Assessment of knowledge, attitude, and practice and associated factors towards palliative care among nurses working in selected. Hospitals, Addis Ababa, Ethiopia. *BMC Palliat Care*. Population with unique needs for palliative care. 2019; 13(1):6. Available at <http://www.biomedcentral.com/1472-684X/13/6>.
 - Khraisat, O., Hamdan, M., & Ghazzawwi, M. (2021): Palliative care issues and challenges in Saudi Arabia: knowledge assessment among nursing students. *J. Palliative Care*; 2021; 32(4):121-126. <https://doi.org/10.1177/0825859717743229>.
 - Komariah, M.; Maulana, S.; Platini, H.; & Pahria, T. A (2021): Scoping Review of Telenursing's Potential as a Nursing Care Delivery Model in Lung Cancer During the COVID-19 Pandemic. *J. Multidiscip. Healthc*. 2021, 14, 3083–3092.
 - Laird, S. K. (2020): Preparing Nurses for Roles in End-of-Life Decision-Making. Nursing doctoral project. Georgia State University. vol 5(2). p20.
 - Lawn, S., Zhi, X., & Morello, A. (2019): An integrative review of e-learning in the delivery of self-management support training for health professionals. *BMC Med Educ*; 17:183.
 - Li, J., Smothers, A., Fang, W. and Borland, M. (2019): Undergraduate Nursing Students' Perception of End-of-Life Care Education Placement in the Nursing Curriculum, *Journal of Hospice and Palliative Nursing: JHPN: the official journal of the Hospice and Palliative Nurses Association*. vol 21(5).p12.
 - Meaza, D. (2024): Palliative care in nurses towards palliative care in Harari National developing countries: What are the important issues? Regional State, Eastern Ethiopia [Internet].
 - Mohamed, S. A. and Fashafsheh, I. H. (2019): The effect of simulation-based training on nursing students' communication skill, self-efficacy and clinical competence for nursing practice, *Open Journal of Nursing*. vol 9(4).p85.
 - Muhamad, B., Setioputro, A., Dicky, E., & Kurniawan, P. (2018): Nursing Students' Attitudes towards Caring for Dying Patients I Emergency and Critical Care Nursing Department, School of Nursing, Nurse Media *Journal of Nursing*. 2018; 8(1):25-34 Available Online at <http://ejournal.undip.ac.id/index.php/medianers>.
 - Peng, X., Su, Y., Hu, Z., Sun, X., Li, X., Dolansky, M., Qu, M., & Hu, X. (2022): Home-Based Telehealth Exercise Training Program in Chinese Patients with Heart Failure: A Randomized Controlled Trial. *Medicine Journal*; 97(35):1-9
 - Podina R, Mogoase C, David D, Szentagotai A, & Dobrean A. (2019): A meta-analysis on the efficacy of technology-mediated CBT for anxious children and adolescents. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 34(1), 31-50.
 - Rattani, S.A., Kurji, Z., Dias, J.M., & AliSher, A. (2020): Effectiveness of High-Fidelity Simulation in Nursing Education for End-of-Life Care: A Quasi-experimental Design. *Indian Journal Palliative Care*. Vol 26(3): 26(3). Available on: doi: [10.4103/IJPC.IJPC.15719](https://doi.org/10.4103/IJPC.IJPC.15719)
 - Salime, R., A'Elmagied, A., Abdel Ati, A., Salah, H., & Ali, A. (2019): Effect of Self-Learning Package on Critical Care Nurses'

Performance Regarding the care of end-of-life patients, thesis submitted for partial fulfillment of the requirement of the doctorate in nursing sciences [medical-surgical nursing / critical care, 2019.

- Samuel, A., Hiwot, K., Tesfaye, D., & Tadesse, G. (2019): Assessment of Nurses' Knowledge, Attitude, Practice and Associated Factors Towards Palliative Care: In the Case of Amhara Region Hospitals, *Advances in Biological Research* 2019; 10(2):110-123. 2016 ISSN 1992-0067 © IDOSI Publications, DOI: 10.5829/idosi.abr.2019.10.2.10397.
- Sarabia-Cobo, C., Alconero-Camarero, A., & LavinAlconero, L. (2019): Assessment of a learning intervention in palliative care based on clinical simulations for nursing students. *Nurse Educ. Today*; 45:219- 224. <https://doi.org/10.1016/j.nedt.2019.08.014>.
- Smith, M., Macieira, T., & Bumbach, M. (2018): The use of simulation to teach nursing students and clinicians palliative care and end-of-life communication: a systematic review. *Am J Hosp Palliat Care*; 35(8):1140-1154. <https://doi.org/10.1177/1049909118761386>.
- Soliman, E.A.(2019): Impact of educational program on nursing care for children suffering from Wilms tumor. Doctorate Thesis. Faculty of Nursing Benha University. pp45-48.
- Song, X., Ren, C., Liu, P., Tao, L., Zhao, W., & Gao, W. (2019): Effect of SmartphoneBased Telemonitored Exercise Rehabilitation among Patients with Coronary Heart Disease. *Journal of Cardiovascular Translational Research*; <https://doi.org/10.1007/s12265-019-09938-6>. Last access:(8/7/2020 2 PM)
- Tamaki, T., Inumaru, A., Yokoi, Y., Fujii, M., Tomita, M., Inoue, Y. and Tsujikawa, M. (2019): The effectiveness of end-of-life care simulation in undergraduate nursing education: A randomized controlled trial, *Nurse Education Today*. vol 76(6),pp1- 7.
- Wang, W.; Wu, C.; Bai, D.; Chen, H.; Cai, M.; Gao, J.; & Hou, C. (2022): A Meta-Analysis of Nursing Students' Knowledge and Attitudes about End-of-Life Care. *Nurse Educ. Today* 2022, 119, 105570.
- Won, J., & Hwang, S. (2019): Palliative care for those. Iranmanesh, S., H. Dargahi and A. Abbaszadeh, Nurses' knowledge, the attitude of Iranian nurses toward caring for preparedness to practice. *Palliat Support Care*; 6(04):363-9.
- World Health Organization (WHO: (2023). WHO definition of palliative care. Retrieved, 2015, February 19, from <http://www.who.int/cancer/palliative/definition/en>.
- Wu, K., Chen, S., Ko, W., Ku, S., Chen, P., & Su, H. (2018): The effectiveness of accessibility-enhanced multimedia informational educational program in reducing anxiety and increasing self-esteem and satisfaction of patients undergoing cardiac catheterization. *J Clin Nurs*; 23:2063-73.
- Zahran, Z.; Hamdan, K.M.; Hamdan-Mansour, A.M.; Allari, R.S.; Alzayyat, A.A.; & Shaheen, A.M. (2022): Nursing Students' Attitudes towards Death and Caring for Dying Patients. *Nurs. Open*, 9, 614–623.
- Zarei, A., Jahanpour, F., Alhani, F., Razazan, N., Ostovar, A. (2019): The impact of multimedia education on knowledge and self-esteem among parents of children with asthma: A randomized clinical trial. *J Caring Sci*; 3:185-92.