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Original Article

Educational video for teaching safe practices in the perioperative period: randomized controlled trial*

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Highlights: (1) Development of a valid patient knowledge assessment questionnaire. **(2)** Production of a valid educational video on perioperative safety. **(3)** The final version of the educational video is 7 minutes and 50 seconds long. **(4)** The educational video was effective in improving patient knowledge. **(5)** It contributes to patient involvement in safe care.

Objective: to assess the effectiveness of an educational video on hospitalized patients' knowledge of safe practices in the perioperative period. **Method:** randomized, double-blind controlled trial carried out in a teaching hospital in the countryside of Minas Gerais. 100 participants undergoing elective orthopaedic surgery were randomly allocated (50 participants in the experimental group and 50 participants in the control group). Patient knowledge was assessed using a questionnaire constructed by the researchers and validated by specialists, before and after the intervention (educational video) or standard guidelines were applied. Descriptive statistics were used for quantitative variables and Student's t-test for independent samples to analyze the mean difference in knowledge between the experimental and control groups ($\alpha = 0.05$). **Results:** 100 participants took part in the study, 50 participants in the experimental group and 50 participants in the control group. The experimental group showed a significantly higher gain in knowledge ($t = 3.72 \pm 1.84$; $p<0.001$) than the control group. Cohen's d was 1.22, indicating a large magnitude of the effect. **Conclusion:** the educational video was effective in improving patients' knowledge and can contribute to nurses in the practice of health education, optimizing time and disseminating knowledge about safe practices in the perioperative period. Brazilian Registry of Clinical Trials (REBEC): RBR-8x5mfq.

Descriptors: Patient Safety; Patient Education as Topic; Educational Technology; Learning; Inpatients; Patient Participation.

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Introduction

Despite the notorious advances in discussions on patient safety, scientific literature shows that damage considered avoidable is still recurrent[1-3]. Data from a scoping review of 25 studies from 27 countries identified an average of 10% Adverse Events (AEs), half of which were considered avoidable and 7.3% of which led to death[2], especially those related to surgical procedures, which are associated with post-operative complications such as injuries, bleeding and the need to redo the surgery[4-6].

In Brazil, notifications of adverse events recorded in the Health Surveillance Notification System, in the period from 2019 to 2021, identified that failures during the surgical procedure occupied the third position, the first being related to bronchoaspiration and the second to patient falls[7].

A change in the culture of health services that effectively transcends institutional and professional mobilization and encourages the involvement of patients as participants and co-responsible for promoting safe practices and preventing incidents in care is imminent[8-9], including the perioperative period. Patient participation in safe care has been considered one of the main strategies for strengthening care safety[10-13], based on the learning and engagement of these individuals[13-14].

Studies show a positive correlation between patient involvement in safety issues and lower AE rates, lower rates of healthcare-related complications and improved perception of safety behavior[15-18].

In surgical patients, a study that analyzed the experience of hospitalized patients regarding their participation in safety protocols showed greater patient involvement in the safe surgery protocol through surgical consent, use of the identification bracelet, fall prevention measures and administration of medication[19].

One of the strategies capable of stimulating patient involvement in safe health practices is the provision of educational material that includes the recognition of risk situations and the conduct to be adopted to avoid the occurrence of errors in the perioperative period[20-21]. It is believed that the educational process can improve the patient's knowledge, perception and attitude towards AE, reflecting on the safety of care[21].

In this context, video has stood out as a didactic resource used in the patient education process because it is considered an innovative and effective strategy, capable of making learning attractive, improving knowledge and engaging individuals in safe behaviors[18,20].

When it comes to health education, nurses can use video as an educational resource at all levels of care, as it can help multiply the information passed on and integrate the patient into the multi-professional team[22], reflecting on perioperative safety indicators. In addition, nurses can use educational videos in teaching, research and outreach activities[22] disseminating knowledge about safe practices in the perioperative period.

Given the potential of developing educational content and making it available in audiovisual materials a gap was observed in the use of these possibilities, especially regarding the publication of studies on safe practices for patients undergoing surgical procedures and the availability of research that analyzes the effect that educational videos can have on hospitalized patients. Furthermore, there is a lack of national research to verify, more broadly, the effect of technological resources on surgical patients' knowledge regarding safety in healthcare.

This justifies the development of scientific research to prove the effectiveness of educational videos in increasing patient knowledge and encouraging them to participate in perioperative safety.

To this end, the aim of this study was to evaluate the effectiveness of educational videos in increasing the knowledge of hospitalized patients about safe practices in the perioperative period.

Method

Study design

This is a randomized, parallel, double-blind controlled trial consisting of two groups: the experimental group (EG), made up of participants who received guidance on safe practices in the perioperative period through the educational video; and the control group (CG), made up of participants who received standard guidance, according to institutional routine.

Period and place

The study took place from April to November 2022 at a large teaching hospital in the countryside of Minas Gerais and followed the recommendations of the Consolidated Standards of Reporting Trials (CONSORT)[23].

Inclusion criteria

Patients undergoing elective orthopaedic surgery and aged 18 or over were included. Participants

with a nursing diagnosis, according to the NANDA-International (NANDA-I®) taxonomy, of Impaired Verbal Communication who had one or more of the following defining characteristics were excluded: partial or total visual impairment; disorientation in relation to people, time and space; difficulty maintaining and understanding communication; using body and/or facial expressions; difficulty expressing thoughts verbally; difficulty speaking and forming words and/or sentences and inappropriate verbalization[24]. Also excluded were participants with total or partial hearing impairment, proven by a medical report; those unable to adequately hear the video narration; those who were not literate; those who had their surgeries canceled because they tested positive for COVID-19 or lacked the necessary documentation for hospitalization.

Sample size calculation

The sample size was calculated by a statistician with no involvement in the research intervention, using the Power Analysis and Sample Size (PASS) software version 13.0. The results obtained in a pilot study carried out prior to data collection for the main study, from April to May 2022, with 10 participants in the EG and 10 participants in the CG, were taken into account. It should be noted that the participants in the pilot study were not part of the final sample of the randomized clinical trial. In the pilot study, there was a gain in knowledge in the EG (82.5 ±16.87) compared to the CG (10.0 ±17.48). A significance level of α=0.05 and a statistical power of 80% (β=0.2) were considered. Based on this calculation, the preliminary results showed a statistical power of over 95%, determining a minimum sample size of three participants per group. However, it was decided to collect data for the main study with a sample larger than the minimum sample size determined, which took place between June and September 2022.

Participants

Participants were recruited from a list made available weekly by the hospital's admissions department, which included patients undergoing elective orthopaedic surgery. The eligible population was 125 participants, 25 participants of whom were not included: seven because they had a Nursing Diagnosis of Impaired Verbal Communication, 15 participants because they were under the age of 18, one because the surgery was canceled due to lack of documentation, one because he tested positive for COVID-19 and one because he refused to take part in the study. The final sample was n=100, 50 in the EG and 50 in the CG. For the outcome evaluated (knowledge gain), based on the means and standard deviations of the EG and CG, considering a sample of 100 participants and significance level α= 0.05, the a posteriori statistical power was calculated, which was greater than 99%.

The intervention evaluated was the use of an educational video about safe practices in the perioperative period. Participants in the EG received the intervention preoperatively, immediately after hospital admission, carried out by the study's principal investigator. The educational video was transmitted using a 10.5-inch Galaxy Samsung tablet and a JBL T510BT Pure Bass On Ear headphone, lasting 7 minutes and 50 seconds.

The production of the educational video followed the recommendations of the National Health Surveillance Agency (ANVISA) handbook entitled "How can I contribute to improving patient safety? - Guidelines for patients, family members and companions"[14], divided into eight parts: introduction to the topic (definition of adverse events and invitation to patients to participate in reducing errors in health care); patient identification (guidance on the identification bracelet); prevention of health care-related infections (concept of infections, steps and times for hand hygiene, care with invasive devices and contact precautions); safe use of medication (importance of knowing the medication administered); safe surgery (care before and after the procedure, importance of surgical consent and demarcation of the operative site); prevention of pressure injuries (definition of terminology and care to avoid them); prevention of falls (factors that increase the chances of the patient falling and preventive measures); and closing the video (importance of patient participation in safe care to improve the quality of care and help prevent errors). In addition, the Cognitive Theory of Multimedia Learning was used as a theoretical framework to guide the use of multimedia resources in the educational process[25].

The decision was made to prepare a script in a language that was clear, objective and accessible to the target audience, using graphic animations to represent the facts narrated by the researcher, which was operationalized using the Videoscribe® software, from Sparkol Company, PRO version. The educational video underwent content validation in the pre-production, production and post-production phases and was validated by experts using the content validity index. In all

validation phases, the proportion of agreement ranged from 80% to 100%.

Participants in the CG received preoperative standard guidance immediately after hospital admission. The instructions were verbal, given by the nurse responsible for admitting surgical patients, in accordance with the institutional safe surgery protocol, and lasted 7 minutes and 50 seconds. This protocol covered patient identification, preoperative care, demarcation of the surgical site and removal of prostheses and adornments before surgery.

The outcome of the study was the patient's gain in knowledge about safe practices in the perioperative period, assessed by means of a knowledge assessment questionnaire, drawn up by one of the researchers and validated by experts on the subject. The gain in knowledge, for the experimental group and the control group, referred to the difference in average knowledge pre and post-intervention or standard guidelines, i.e. for each participant, in their respective group, the difference between the number of correct answers post-intervention or standard guidelines minus the number of correct answers pre-intervention or standard guidelines was calculated.

The knowledge assessment questionnaire (available in supplementary material) consisted of patient identification data (initials, medical record number and date of birth), sociodemographic variables (source, schooling, profession, family income and marital status) and clinical variables (hospitalization and previous surgeries, surgery performed and comorbidities) and eight multiple-choice questions, with five alternative answers and only one correct. The questionnaire also followed the same recommendations and themes used in the production of the educational video. It was then subjected to validation using the content validity index and was considered valid by the experts since all the questions in the instrument showed a minimum agreement of 88.8% and a maximum of 100%.

The randomization process was carried out using a randomization scheme generated on the Randomization.com website by a researcher who was not involved in the study intervention. After randomization, a sequentially numbered list was generated to allocate the participants to the groups, which was only held by the researcher who carried it out. During data collection, after the patient agreed to take part in the study, the lead researcher contacted the person responsible for randomization to identify the allocation group for each participant. The assistant researcher and the statistician who carried out the analyses were blinded as to the type of intervention each participant received, which characterizes this study as double-blind.

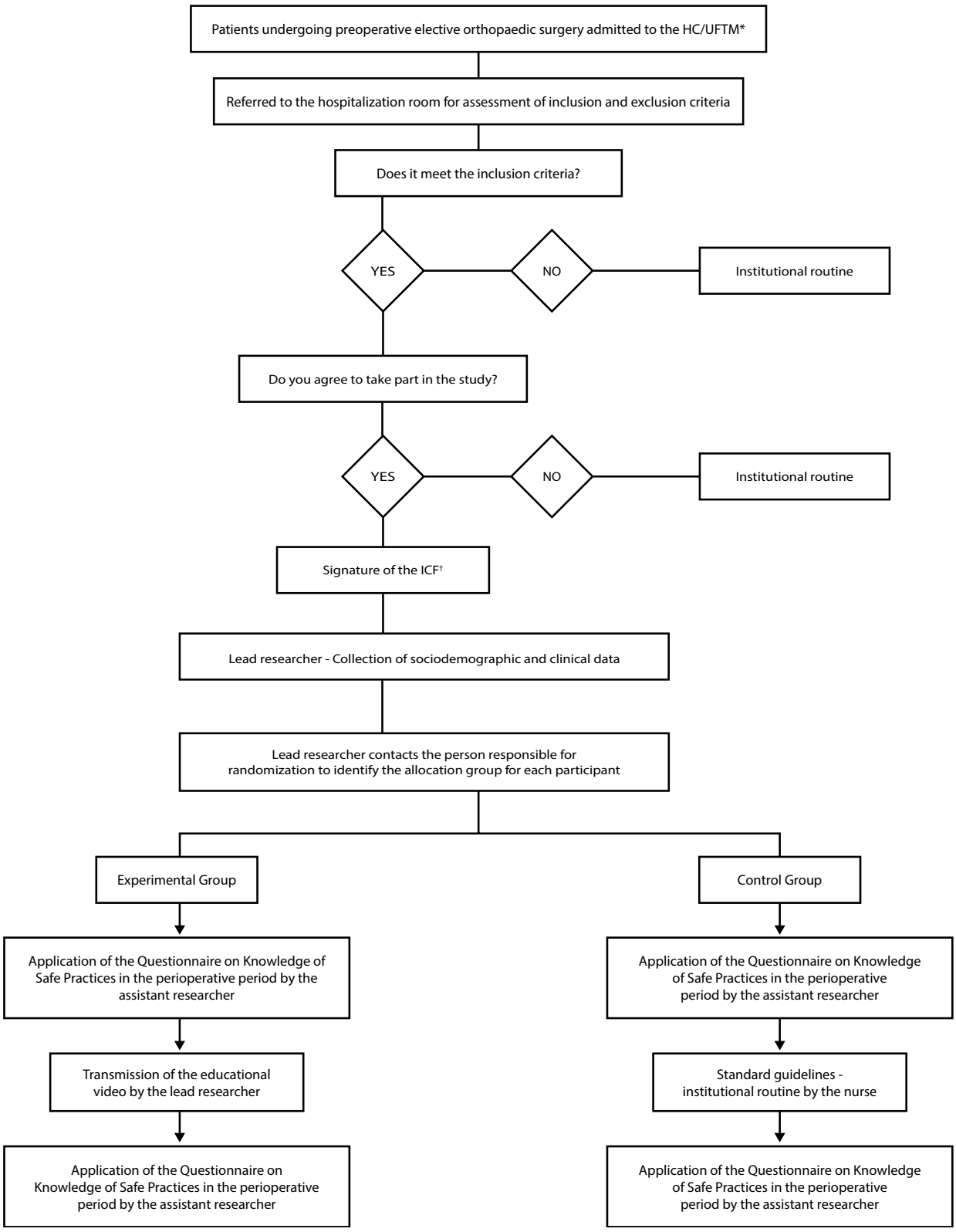
Data collection

To carry out the data collection, a research team was set up consisting of two researchers, the leader and assistant, and a nurse. The research team was distributed as follows: the lead researcher was responsible for collecting the sociodemographic and clinical variables and broadcasting the educational video to the EG patients; the assistant researcher was responsible for administering the questionnaire to assess the participants' knowledge to both groups (EG and CG), pre- and post-intervention or standard guidelines; and the nurse was responsible for the standard guidelines, as she is the professional responsible for admitting and guiding surgical patients at the institution, in accordance with the institutional routine and protocol. It should be noted that the assistant researcher was unaware of the participant's allocation, as she was not in the room during the broadcast of the educational video or when the standard guidelines were being given.

The researchers, in possession of the list provided by the hospitalization department, which included the patient's name, age, the name of the surgery to be performed, the date and time of hospitalization and surgery, went to the hospital to approach the patient and assess the inclusion and exclusion criteria. Once the participant had agreed, the Informed Consent Form (ICF) was signed.

Data collection took place after the participant had been allocated by the randomization list, in the preoperative period, immediately after hospital admission. The study participants were taken individually to the hospitalization room for the intervention or standard guidelines to be applied. It should be noted that the participants in the EG and CG did not interact with each other and that the standard guidelines and the educational video had the same duration, avoiding contamination between the groups.

The participant's sociodemographic and clinical data was collected, followed by a questionnaire to assess their knowledge of safe perioperative practices. Afterwards, the educational video was shown to the EG and the standard guidelines to the CG. After the intervention or standard guidelines, the knowledge assessment questionnaire was applied again. The scheme used for the data collection procedure is shown in Figure 1.



*HC/UFTM = *Hospital de Clínicas da Universidade Federal do Triângulo Mineiro*; †ICF = Informed consent form

Figure 1 - Data collection procedure. Uberaba, MG, Brazil, 2023

Data treatment and analysis

The double entry technique was used and the data collected was analyzed using the Statistical Package for the Social Sciences (SPSS) software version 23.0. The significance level used was α=0.05.

To test the hypothesis of the homogeneity of the groups (CG and EG), variables were used according to the scientific basis. The literature points to some factors as possible hindrances to the acquisition of knowledge, such as: age, schooling, family/monthly income, previous experiences, etc[26-28].

The t-test for independent samples was used for quantitative variables (age) and the chi-square test for categorical variables (income, schooling and previous surgeries). The prerequisites for using parametric tests were duly considered.

Descriptive statistics were used for quantitative variables, using descriptive measures of centrality and dispersion and Student's t-test for independent samples to analyze the mean difference in knowledge between the experimental and control groups. In addition, Cohen's d was used to classify the magnitude of the intervention's effect, which could be small (d<0.20), moderate (≥0.20 to <0.50) or large (≥0.50)[29].

Ethical aspects

In order to meet ethical criteria, the participants remained anonymous and signed an informed consent form. This study was approved by the Research Ethics Committee of the Federal University of Triângulo Mineiro, CAAE 27120619.7.0000.8667, opinion number 3.946.086, and registered in the Brazilian Clinical Trials Registry (REBEC) database, with primary identifier RBR-8x5mfq.

Results

The study sample consisted of 100 participants, 50 participants in the EG and 50 participants in the CG. The majority (51.0%) were male and in formal employment (75.0%). There was a greater predominance of married/stable union participants (46.0%), with a monthly family income of two minimum wages (62.0%), measured in reals, and with incomplete high school education (36.0%). The average age was 51.84 years (SD±14.41; minimum 20, maximum 86). Table 1 shows the sociodemographic and clinical characteristics of the patients taking part in the study.

Table 1 - Frequency distribution of sociodemographic and clinical characteristics of the sample, considering the control group, experimental group and total sample (n = 100). Uberaba, MG, Brazil, 2023

Variables	Characteristics	CG* n‡ (%)	EG† n‡ (%)	Sample total n‡ (%)
Sex	Male	30 (60.0)	21 (42.0)	51 (51.0)
	Female	20 (40.0)	29 (58.0)	49 (49.0)
	Total	**50 (100.0)**	**50 (100.0)**	**100 (100.0)**
Retired	Yes	13 (26.0)	12 (24.0)	25 (25.0)
	No	37 (74.0)	38 (76.0)	75 (75.0)
	Total	**50 (100.0)**	**50 (100.0)**	**100 (100.0)**
Marital status	Married/stable union	21 (42.0)	25 (50.0)	46 (46.0)
	Single with steady partner	08 (16.0)	03 (6.0)	11 (11.0)
	Single without steady partner	16 (32.0)	20 (40.0)	36 (36.0)
	Widowed	05 (10.0)	02 (4.0)	07 (7.0)
	Total	**50 (100.0)**	**50 (100.0)**	**100 (100.0)**
Income§	No income	01 (2.0)	01 (2.0)	02 (2.0)
	One minimum wage	09 (18.0)	07 (14)	16 (16.0)
	Two minimum wages	28 (56.0)	34 (68.0)	62 (62.0)
	Three to five minimum wages	12 (24.0)	08 (16.0)	20 (20.0)
	Total	**50 (100.0)**	**50 (100.0)**	**100 (100.0)**
Education	Incomplete primary education	09 (18.0)	09 (18.0)	18 (18.0)
	Elementary school complete	07 (14.0)	10 (20.0)	17 (17.0)
	High school incomplete	18 (36.0)	18 (36.0)	36 (36.0)
	High school complete	15 (30.0)	11 (22.0)	26 (26.0)
	Higher education incomplete	00 (0.0)	01 (2.0)	01 (1.0)
Previously admitted‖	Yes	28 (56.0)	31 (62.0)	59 (59.0)
	No	22 (44.0)	19 (38.0)	41 (41.0)
	Total	**50 (100.0)**	**50 (100.0)**	**100 (100.0)**

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Variables	Characteristics	CG* n‡ (%)	EG† n‡ (%)	Sample total n‡ (%)
Previous surgery	Yes	27 (54.0)	29 (58.0)	56 (56.0)
	No	23 (46.0)	21 (42.0)	44 (44.0)
	Total	**50 (100.0)**	**50 (100.0)**	**100 (100.0)**
Comorbidities	Yes	21 (42.0)	21 (42.0)	42 (42.0)
	No	29 (58.0)	29 (58.0)	58 (58.0)
	Total	**50 (100.0)**	**50 (100.0)**	**100 (100.0)**

*CG = Control Group; †EG = Experimental Group; ‡n = Number of participants; §Income = Minimum wage R$ 1302.00, Brazil, year 2022; ||Previously Admitted = Prior hospitalization

The homogeneity of the groups showed that the experimental and control groups were homogeneous and comparable, considering the t and Chi-square tests and the variables age (p=0.42), income (p= 0.38), schooling (p=0.51) and previous surgeries (p= 0.69).

When analyzing the descriptive data in relation to the pre- and post-intervention values or standard guidelines, as shown in Table 2, there was an increase in the average knowledge for the control group and the experimental group.

Table 2 - Measures of central tendency and variability for the mean difference in patient knowledge, pre and post-intervention, considering the control and experimental groups (n = 100). Uberaba, MG, Brazil, 2023

Groups/Periods	Minimum	Maximum	Median	Mean	SD*	p†
Control group						
Pre-standard guidelines	0	8	2.00	2.96	2.62	<0.001
Post-standard guidelines	0	8	5.00	4.44	2.65	
Experimental group						
Pre-educational video	0	8	3.00	3.02	1.91	<0.001
Post-educational video	0	8	8.00	6.74	2.25	

*SD = Standard deviation; †p = Paired t-test

An analysis was also made of the number of correct answers for each item on the knowledge assessment questionnaire, between CG and EG, pre- and post-intervention or standard guidance, as shown in Table 3.

It was observed that in Part 1 (patient identification), for both groups, there was a similar number of correct answers before and after the intervention or standard guidance. In Part 2 (prevention of healthcare-associated infections), question three showed no difference in the number of correct answers for both groups, which demonstrated a lack of knowledge gain. Question three was about how long invasive devices should be used, hand hygiene and how to handle patients in "contact precautions". In Part 3 (safe surgery) and Part 4 (safe use of medication), it was noted that, after the intervention, the experimental group had a higher number of correct answers than the control group, after the standard guidelines.

As for Parts 5 and 6 (prevention of pressure injuries and falls), the EG had significantly more correct answers than the CG.

When investigating the effectiveness of the educational video in increasing patients' knowledge regarding safe practices in the perioperative period, the average difference in patients' knowledge was calculated between groups, pre and post-intervention, as shown in Table 4. The results showed that the mean difference in the EG was statistically significant (p<0.001) higher when compared to that in the CG.

When calculating the magnitude of the intervention effect, Cohen's d was 1.22, indicating a large magnitude of the effect. Thus, it is understood that the greater the effect, the greater the impact of the intervention, that is, the greater the impact of the educational video on participants' knowledge about safe practices in the perioperative period.

Table 3 - Number of correct answers for each item on the questionnaire assessing patient knowledge, between the control and experimental groups, pre- and post-intervention or standard guidelines (n* = 100). Uberaba, MG, Brazil, 2023

Questions	Control Group				Experimental Group			
	Pre-Standard Guidelines		Post-Standard Guidelines		Pre-Educational Video		Post-Educational Video	
	n*	%	n*	%	n*	%	n*	%
Part 1- Patient Identification								
1. When you enter the hospital, when should your identification be carried out?	19	38.0	40	800	12	24.0	47	94.0
2. Regarding patient identification, there is only one right answer, what is it?	17	34.0	40	80.0	14	28.0	45	90.0
Part 2- Prevention of Healthcare-Associated Infections								
3. Regarding hospital-acquired infections, which of the following measures helps to prevent them?	28	56.0	28	56.0	42	84.0	42	84.0
4. Which alternative is correct about hand hygiene??	27	54.0	32	64.0	30	60.0	43	86.0
Part 3- Safe Surgery								
5. Regarding safe surgery, there is only one right option, which is it?	21	42.0	27	54.0	24	48.0	41	82.0
Part 4- Safe Use of Medications								
6. Regarding medication errors, what is the only correct alternative?	17	34.0	24	48.0	22	44.0	40	80.0
Part 5- Pressure Injury Prevention								
7. Pressure injuries are wounds caused when an area of the body is pressed for too long. What can you do to prevent these wounds from occurring?	09	18.0	14	28.0	04	8.0	40	80.0
Part 6- Fall Prevention								
8. Which of the following situations increase the chance of a patient falling?	10	20.0	17	34.0	03	6.0	39	78.0

*n = Number of participants

Table 4 - Mean difference in patients' knowledge, pre and post-intervention, according to the Knowledge Assessment Questionnaire about Safe Practices in the Perioperative period, considering the control and experimental groups (n* = 100). Uberaba, MG, Brazil, 2023

Parameter	n*	Mean	SD†	p‡
Knowledge				
Control Group	50	1.48	1.81	<0.001
Experimental Group	50	3.72	1.84	

*n = Number of participants; †SD = Standard deviation; ‡p = p-value referring to the calculation of the student's t test for independent samples

Discussion

The present research identified that, in the descriptive analysis of the data, there was an improvement in the knowledge of participants in the CG and EG, with emphasis on an increase in the average number of correct answers in the EG (3.72 points) compared to the CG (1.82 points). This fact can be explained since a large proportion of patients admitted to health services lack information about the organization, structure and functioning of the care routine[30], including care security measures. Therefore, the minimum amount of guidance provided by the team, verbally or through an educational strategy, can contribute to increasing patients' knowledge.

Results of a randomized controlled trial that evaluated the effectiveness of the educational video, compared to verbal guidance in increasing patients' perception of the risk of falls, demonstrated better results in the group that received verbal guidance. However, the effect size was too small to be considered clinically important. The authors recognize that video is a strategy used by nurses to break patterns of technological exclusion of patients[31].

When analyzing the number of correct answers in the groups, in each question of the questionnaire, pre and post-intervention or standard guidelines, it was noticed that the safe surgery protocol, a document that guides the standard guidelines, according to institutional routine, addresses the issue patient identification, a fact that may justify the increase in knowledge of participants also in the CG. Data from a study carried out in a Brazilian hospital, which analyzed patients' perception of involvement with security protocols, found that patients

were aware of the identification protocol and the importance of checking the identification bracelet by healthcare professionals[19].

Concerning healthcare-related infections, it was observed that research findings carried out in a hospital in the interior of São Paulo demonstrated that patients also showed a lack of knowledge regarding precautionary measures against infections, often due to difficulty understanding the guidelines given[32-33]. As for hand hygiene, Brazilian research findings, with patients hospitalized in medical and surgical clinical units, demonstrated that after the dissemination of informative materials, patients had better knowledge regarding the topic[19]. The importance of choosing a health education strategy considering the nurse's skills and the availability of resources is emphasized, in order to improve the knowledge of the target audience[31].

In issues related to safe surgery, it was noticed that scientific publications are more focused on the knowledge of the healthcare team in implementing this protocol[34-36] than in improving patient knowledge. This finding reinforces the importance of this research in filling a gap in the scientific literature.

Regarding patient knowledge in the safe administration of medications, study results reinforce the effectiveness of using educational videos. Investigations carried out in Brazil to guide patients in the safe administration of warfarin and in Indonesia regarding the rational use of antibiotics demonstrated an increase in patients' knowledge after viewing the audiovisual material[37-38]. Furthermore, a systematic review, which used educational videos in the health education process, concluded that this resource improved diabetic patients' learning to administer insulin, providing greater medication safety[39].

In items related to the prevention of pressure injuries and falls, it is assumed that the gain in knowledge in the CG was lower due to the lack of approach to this topic in the standard guidelines. This finding suggests that the educational video was able to improve patient knowledge when compared to the instructional routine, corroborating other findings in the literature[16-18,40].

In this study, in the analysis between groups, the educational video was effective in improving patients' knowledge about safe practices in the perioperative period, when compared to the standard guidelines provided according to institutional routine.

In the health sector, studies have shown that the use of this technology as a teaching strategy for patients was able to improve knowledge of different outcomes. In Indonesia, the use of educational videos improved knowledge about diabetic foot care[41]. Data from two reviews were also favorable to the use of video, the systematic one showed an improvement in patients' perception of bowel preparation for colonoscopy examinations[42] and scope, better management of health conditions[43].

In patient safety, research has found a positive effect of using educational videos on patient knowledge. Quasi-experimental studies carried out with hospitalized patients in the UK and Singapore showed an increase in patient knowledge regarding involvement in safety issues and fall prevention measures, following the broadcast of an educational video on preventing errors and falls during care[20,44].

Another study carried out in a hospital in South Korea compared the use of educational videos on safety in care with standard guidelines and found a significant improvement in patients' knowledge of measures to prevent falls, pressure injuries and infections[18].

These results show that this technological resource can facilitate the understanding and multiplication of information on patient safety and stimulate the involvement of individuals in safe health practices.

In Brazil, there are still few studies evaluating the effectiveness of educational strategies, including educational videos, in improving patients' knowledge about safe care[13,31], this can be explained by the recent national initiatives and discussions regarding patient participation in patient safety, through the National Patient Safety Policy, instituted in 2013, and the publication of the ANVISA Patients Handbook for Patient Safety in Health Services[14,45].

The existence of an educational video, valid and based on scientific evidence, is therefore relevant, as it is an effective, accessible and low-cost intervention to improve patients' knowledge of safe perioperative practices.

A limitation of the study is the assessment of patient knowledge at just one point after the intervention or standard guidance, since assessing knowledge at more than one point and over the long term would make it possible to verify the acquisition and retention of the content covered. In addition, there is a need to make it possible to use the video in other clinical practice scenarios. Future research is needed to evaluate the effectiveness of other educational interventions that can be compared to this educational video.

Conclusion

The use of the educational video was effective in increasing the knowledge of hospitalized patients about safe perioperative practices, when compared to standard guidelines according to institutional routine. Participants

who watched the video showed improved knowledge on issues related to safe surgery, safe use of medication, preventive measures for pressure injuries and falls, compared to CG participants.

The video contributes to health education, a function inherent to nurses' clinical practice, by standardizing the guidelines given and optimizing the time spent with the patient, as it is an attractive teaching resource that arouses the viewer's interest and stimulates meaningful learning.

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