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Educating registered nurses in pain knowledge and documentation management

Submission date	Recruitment status	[_] Prospectively registered
05/06/2020	No longer recruiting	[_] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
18/06/2020	Completed	[X] Results
Last Edited	**Condition category**	[_] Individual participant data
06/10/2022	Other	

Plain English summary of protocol

Background and study aims
Registered nurses (RNs) play a vital role in patients' pain management after surgery. Therefore, it is important for RNs to have adequate knowledge and documentation skills when it comes to postoperative pain care. The aim of this study is to develop and test a brief educational intervention based on Finnish acute postoperative pain nursing practice guidelines, in order to improve RNs' knowledge of pain management and improve their postoperative documentation skills.

Who can participate?
Registered nurses (RNs) at a central hospital in Finland

What does the study involve?
RNs are randomly allocated to the intervention and control groups the day before the beginning of the intervention. All participants take the Acute Postoperative Pain Knowledge Test©. Once all participants respond to the test, the researcher calls out the names of individuals who are to leave the classroom and conduct the tests with the remaining nurses. The RNs who leave the classroom become members of the control group, and those who remain in the classroom belong to the intervention group. Only the intervention group RNs participate in the education intervention. The intervention lecture starts immediately after the control group leave the room. After the lecture, the intervention group again take the Acute Postoperative Pain Knowledge Test©. Three months after the intervention, the researcher directly conducts the retention test, personally asking the RNs to take the same test again. The researcher audits each RN's pain documentation from three different patient records before and after the intervention and after 3 months.

What are the possible benefits and risks of participating?
Half of the participating RNs receive a brief postoperative pain education. There are no risks of participating.

Where is the study run from?
Central Finland Health Care District (Central Finland Central Hospital)

When is the study starting and how long is it expected to run for?
October 2016 to July 2018

Who is funding the study?
Finnish Vascular Nursing Society (Suomen Verisuonihoitajayhdistys)

Who is the main contact?
Salla Grommi
sallagro@uef.fi

Contact information

Type(s)
Scientific

Contact name
Miss Salla Grommi

ORCID ID
http://orcid.org/0000-0003-1448-5099

Contact details
University of Eastern Finland, Department of Nursing Science
Yliopistonranta 1 C
Kuopio
Finland
70211
+358 (0)505358453 or +358 (0)503017339
sallagro@uef.fi

Additional identifiers

EudraCT/CTIS number
Nil known

IRAS number

ClinicalTrials.gov number
Nil known

Secondary identifying numbers
Nil known

Study information

Scientific Title
Educating registered nurses in pain knowledge and documentation management: a randomized controlled trial

Study objectives

H0: μc = μi and H1: μc < μi, where μc is the average change in RNs' pain knowledge or documentation quality in the control group and μi is the average change in RNs' pain knowledge or documentation quality in the intervention group. The threshold for statistical significance (p) is <0.05.

Alternatively, the hypothesis could be formulated as follows: H0: d ≤0.2 and H1: d >0.2, where d is – (Cohen 1988). In d, μi is the average change in RNs' knowledge or documentation quality in the intervention group, μc is the average change in RNs' knowledge or documentation quality in the control group, and σ is the combined standard deviation.

Ethics approval required
Old ethics approval format

Ethics approval(s)
This type of study does not require ethics approval in Finland, the target organization's study protocol and permission to start study are enough. The volunteers were informed about the purpose of the study and voluntary participation, and their written informed consent was taken.

Study design
Randomized controlled trial with a pre-, post-, and retention-tests design

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Hospital

Study type(s)
Other

Participant information sheet
Not available in web format please use contact details to request a participant information sheet

Health condition(s) or problem(s) studied
RNs' postoperative pain knowledge and documentation

Interventions
In this study, RNs work in three selected surgical wards. Before the study, the researchers coordinate with the units' nursing managers in order to bring the RNs to the training space. The RNs' shifts are planned to begin and end earlier or later. Only the research team and nurse managers know the exact date of the intervention. On the previous day, the researcher (first author) allocates the RNs to groups (surgical ward 1, surgical ward 2, surgical ward 3 and vice staff personnel); then those four groups again are randomly placed into two groups (intervention and control groups). The participants are unaware of the allocation until the intervention.

The researchers implement the study on a single day in April 2017 between 12 am and 16 pm. On that day, all of the nursing staff working on the morning or evening shifts constitute the study

population (N=50). On the intervention day, the evening shift RNs come to the training space at 12 am. The researcher first tell RNs about the research. If the RNs fill in the consent form, they agree to participate in the study. Second, all participants take the Acute Postoperative Pain Knowledge Test©. Once all participants respond to the test, the researcher calls out the names of individuals who are to leave the classroom and conduct the tests with the remaining nurses. The RNs who leave the classroom become members of the control group, and those who remained in the classroom belong to the intervention group. Only the intervention group RNs participate in the education intervention. The intervention lecture starts immediately after the control group left the room. After the lecture, the intervention group again take the Acute Postoperative Pain Knowledge Test©. After the intervention group take the test again, they go to their units to be relieved by the morning shift. Morning shift RNs come to the classroom at approximately 14 pm. The previous protocol is repeated in exactly the same manner. However, after the protocol, all morning-shifts RNs finish their workdays. This design aims to control the potential impact of the interaction between the intervention and control groups.

Three months after the intervention, the researcher directly conducts the retention test in work units, personally asking RNs to take the same test again. Tests are taken under the supervision of the researcher. A documentation audit is conducted retrospectively in spring and summer 2018. The researcher audit each RN's documentation from three different patient records three times at the baseline, post and retention stages.

Intervention Type
Behavioural

Primary outcome measure
Pain knowledge measured using the Acute Postoperative Pain Knowledge Test© pre-intervention, post-intervention, and at 3 months

Secondary outcome measures
Pain documentation assessed using documentation audit pre-intervention, post-intervention, and at 3 months

Overall study start date
01/10/2016

Completion date
31/07/2018

Eligibility

Key inclusion criteria
The researchers implemented the study on a single day in April 2017 between 12 am and 16 pm. On that day, all of the nursing staff working on the morning or evening shifts constituted the study population (N=50) in three surgical wards.

Participant type(s)
Health professional

Age group
Adult

Sex
Both

Target number of participants
50

Total final enrolment
50

Key exclusion criteria
Not working in the intervention day in three selected surgical wards, other profession than RN

Date of first enrolment
18/04/2017

Date of final enrolment
31/07/2017

Locations

Countries of recruitment
Finland

Study participating centre
Central Finland Health Care District
Keskussairaalantie 19
Jyväskylä
Finland
40620

Sponsor information

Organisation
University of Eastern Finland

Sponsor details
Department of Nursing Science
Itä-Suomen yliopisto
Hoitotieteen laitos
PL 1627
Kuopio
Finland
70211
+358 (0)403552629
hannele.turunen@uef.fi

Sponsor type
University/education

Website
http://www.uef.fi/en

ROR
https://ror.org/00cyydd11

Funder(s)

Funder type
Other

Funder Name
Finnish Vascular Nursing Society (Suomen Verisuonihoitajayhdistys)

Results and Publications

Publication and dissemination plan
Planned publication immediately after registration.

Intention to publish date
08/12/2020

Individual participant data (IPD) sharing plan
The datasets analyzed during this study will be included in the subsequent results publication.

IPD sharing plan summary
Other

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		01/05/2021	06/10/2022	Yes	No