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Improvement of care during nurse-patient encounters for burn injuries in children by video interaction guidance

Submission date
30/03/2022

Recruitment status
No longer recruiting

Registration date
01/04/2022

Overall study status
Completed

Last Edited
20/10/2023

Condition category
Other

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
Wound dressing changes are (daily) recurring nursing interventions in the treatment of paediatric patients with burns. An intervention that is painful and stressful for the child, and also for the nurse is an unwelcome but necessary act. It is thought that if nurses have more skills to interact with children during recurring medical events or nursing interventions, the events could be less distressing and painful for the children (Nillson et al., 2011). Video interaction guidance (VIG) has been applied to optimize the interaction between the nurse and the child. VIG is an intervention that builds positive relationships through filming and feedback sessions, micro-analysing interactions between the nurse and the child. The nurses find VIG a valuable and positive experience, but is there actually a change, improvement in interaction?

The study aims to investigate whether nurses' interactional behaviour during recurring wound dressing changes can be improved by video interactive guidance and to check whether the interaction is associated with more comfort for the child.

Who can participate?
Nurses working in two Dutch burn centres for at least one year.

What does the study involve?
Participants will be randomly allocated to 2 or 3 VIG feedback sessions guided by a certified video-interactive guider (intervention group) or to work as usual (control group).
Before and after the intervention, 3 video recordings were made of nurse-child encounters in which wound dressings were changed. In the control group also 6 recordings per nurse were made. The videos were watched by a blinded observer to rate the interactional behaviour of nurses during wound dressing changes in children. In addition, child behaviour in all video recordings was scored by a blinded observer.

What are the possible benefits and risks of participating?
Possible benefits: enhancement of the fundamentals of care by improved relationships. There are no risks for nurses participating in this study.

Where is the study run from?
Association of Dutch Burn Centres (the Netherlands)

When is the study starting and how long is it expected to run for?
August 2012 to April 2018

Who is funding the study?
Dutch Burn Foundation (the Netherlands)

Who is the main contact?
Dr Anuschka Niemeijer, a.niemeijer@mzh.nl

Contact information

Type(s)
Principal investigator

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

ClinicalTrials.gov (NCT)
Nil known

Protocol serial number
MZH2011-28, project number: 1501

Study information

Scientific Title
Improvement of care during nurse-patient encounters for burn injuries in children by video interaction guidance: a randomized controlled trial of effectiveness

Acronym
ICVIG

Study objectives
This study examines whether Video Interactive Guidance (VIG) is a useful tool to improve the nurses' professional relationships during nurse-patient encounters and whether better interaction is associated with more comfort as experienced by patients.

Ethics approval required
Old ethics approval format

Ethics approval(s)
1. Approved 11/09/2012, Medical ethics committee (Martini Hospital, van Swietenplein 1, 9728NT Groningen, The Netherlands; +31 (0)505246311; MEC@mzh.nl), ref: 2011-28
2. Approved 19/01/2016, Medical ethics committee (Maasstad Hospital Maasstadweg 21, 3079DZ Rotterdam, The Netherlands; +31(0)102913216; kLeistraM@maasstad.nl), ref: L2015-088

Study design
Interventional randomized controlled trial

Primary study design
Interventional

Study type(s)
Other

Health condition(s) or problem(s) studied
Interaction between the nurse and child with burns during woundcare.

Interventions
In total 17 burn care nurses were randomized into two groups: an intervention group (7 nurses) and a control group. The intervention group received 2 or 3 VIG feedback sessions guided by a certified video-interactive guider. Before and after the intervention, 3 video recordings were made of nurse-child encounters in which wound dressings were changed. In the control group also 6 recordings per nurse were made. Both nurses and parents of the children were asked for informed consent. The videos were watched by a blinded observer. The observer scored the recorded wound dressing changes using the nurse-child interaction taxonomy (NCIT) for interactional behaviour of nurses during wound dressing changes in children (16 items scored on a 7 point scale). In addition, child behaviour in all video-recordings (n=102) was scored with the Comfort-B scale by a blinded observer.

Selection of nurses and allocation to the VIG and no-VIG group was performed by someone not involved in data acquisition. For the selection of participants, a computer randomised generated list was used and computerised coin flipping for the allocation (http://www.random.org).

Rating of outcome measures started after all tapes during nursing were made. All tapes were blinded, i.e. their sequence could not be identified by the raters. Furthermore, the raters did not know which of the nurses received VIG. An experienced, independent third rater scored all tapes regarding pain and discomfort using the COMFORT-B scale. This rater was also blinded for allocation.

Intervention Type
Behavioural

Primary outcome(s)
Nurses’ skills to interact with their patients are measured with the Nurse-Child Interaction Taxonomy (NCIT, van Ingen Schenau-Veldman et al., 2020) before and after the intervention. Videotapes of wound dressing changes are systematically scored using the NCIT. The NCIT was specially developed to score the interaction between nurses and children with burns during wound dressing changes.

Key secondary outcome(s))
The intensity of pain and distress experienced by the child is measured using the COMFORT behaviour scale (COMFORT-B) at the time of care encounter by a blinded observer.

Completion date
20/04/2018

Eligibility

Key inclusion criteria
Nurses with at least one year of experience working in our burn centres

Participant type(s)
Health professional

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Total final enrolment
17

Key exclusion criteria
Nurses with less than one year of experience

Date of first enrolment
06/12/2012

Date of final enrolment
01/02/2016

Locations

Countries of recruitment
Netherlands

Study participating centre
Martini Hospital
van Swietenplein 1
Groningen
Netherlands
9728 NT

Study participating centre
Maasstad Hospital
Maasstadweg 21
Rotterdam
Netherlands
3079 DZ

Sponsor information

Organisation
Association of Dutch Burn Centres

ROR
https://ror.org/02wcc5n95

Funder(s)

Funder type
Charity

Funder Name
Nederlandse Brandwonden Stichting

Alternative Name(s)
Dutch Burns Foundation

Funding Body Type
Private sector organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
Netherlands

Results and Publications

Individual participant data (IPD) sharing plan
This data can be obtained on request.
ingensa@mzh.nl

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		23/02/2023	20/10/2023	Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes