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Goal management in orthopaedic nursing

Submission date
13/05/2025

Recruitment status
No longer recruiting

Registration date
14/05/2025

Overall study status
Completed

Last Edited
14/05/2025

Condition category
Other

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol
Background and study aims
This study looked at whether a management approach called "Management by Objectives" (MBO) could help reduce safety problems in orthopedic nursing care. The researchers wanted to see if using MBO could improve how nurses perform in their knowledge, practical skills, and communication with patients.

Who can participate?
The study involved patients with fractures who were receiving care in the orthopedic department. They were divided into two groups: one received standard care, and the other received care from nurses using the MBO approach.

What does the study involve?
Participants received regular orthopedic care, but the way nurses managed their work differed. One group had nurses using a goal-setting method (MBO) to guide their care, while the other group received usual care. Researchers then compared the outcomes between the two groups.

What are the possible benefits and risks of participating?
The potential benefit for participants was receiving care that might be more organized and focused on safety and communication. There were no additional risks reported for patients in this study.

Where is the study run from?
Shanxi Bethune Hospital (China)

When is the study starting and how long is it expected to run for?
March 2021 to May 2023

Who is funding the study?
Investigator initiated and funded

Who is the main contact?
Dr Xiaohong Zhang, zhangxh2024xh@163.com

Contact information

Type(s)
Public, Scientific, Principal investigator

Contact name
Dr Xiaohong Zhang

ORCID ID
https://orcid.org/0009-0004-2128-3924

Contact details
No. 99 Longcheng Street, Xiaodian District, Taiyuan City, Shanxi Province
Taiyuan City
China
030032
+86 0351-8368114
zhangxh2024xh@163.com

Additional identifiers

Study information

Scientific Title
Application of management by objectives in standardized management of orthopedic nursing safety adverse events: a prospective study

Study objectives
Management by objectives (MBO) is effective in reducing the incidence of nursing safety adverse events

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 28/04/2022, Ethics committee of Shanxi Bethune Hospital (No. 99 Longcheng Street, Xiaodian District, Taiyuan City, Shanxi Province,030000, China, Taiyuan City, 030032, China; +86 0351 8379723; dyyllwyh@163.com), ref: 2022021

Primary study design
Interventional

Study design
Interventional non randomized

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Goal management in orthopaedic nursing

Interventions

384 patients admitted by the Orthopedics Department of our Hospital from May 2021 to April 2023 were selected as the research objects in a prospective manner. The patients were divided into the control group (from May 2021 to April 2022, n=176) and the observation group (from May 2022 to April 2023, n=208) according to their admission time. The nurses for the patients in the observation group adopted Management by Objectives for care while the nurses in the control group provided regular nursing care. The control and observation groups had 9 nurses each.

The patients of the control group were nursed by 9 nurses and intervened in ordinary ways. The nurses introduced the knowledge related to the disease to them, such as preparation and cooperation before examination, treatment methods, medication guidance, precautions, etc., offered psychological counseling to those who had negative moods, and instructed them on diet and exercise.

The nurses in the observation group adopted nursing strategies guided by Management by Objectives in the care provided to the patients. See the following for the details:

Establishing a nursing management team

The team was composed of 9 members in total. The head nurse of the department acted as the team leader, and other members were highly responsible and skilled nurses with more than 5 years of nursing experience. The team held a meeting on a weekly basis to analyze the conditions of nursing management in the Orthopedics Department. Moreover, special training was offered to the nurses of the Orthopedics Department, covering the concept, application, background, purposes, specific measures, and successful cases of Management by Objectives, so as to enable each nurse to fully master and understand Management by Objectives.

Protocol for Implementing Management by Objectives

1. An analysis was carried out on the status quo of the Orthopedics Department to summarize the existing problems in orthopedic nursing management. Each of the problems was analyzed and discussed in detail to find out the fundamental factors related to the quality of nursing management in the Orthopedics Department.
2. An appropriate management system was formulated according to the differences of each nurse in the Orthopedics Department. Specifically, the nurses were appraised on a regular basis to learn the quality and effect of nursing. Moreover, these appraisals were recorded. Nurses who demonstrated excellence in patient care and adherence to the Management by Objectives principles were recognized and rewarded. Those who faced challenges in implementation were provided with additional support and training opportunities to enhance their skills. A log of safety records was established, including the patients' hidden dangers and nursing safety adverse events, etc. The nurses should check the log on a regular basis, and register the safety adverse events. Meanwhile, they should guide the patients to prevent safety adverse events, thus reducing their risks during hospitalization. The head nurse should organize to hold a meeting regularly, so that they could analyze and summarize the safety adverse events, and put forward reasonable precautionary measures.

The nursing staff in the orthopedic unit was divided into two separate teams of 9 nurses each for the duration of the study. There was no overlap between the nurses in the control and observation groups to prevent contamination of the intervention. Both teams worked similar shifts and had comparable patient loads to ensure comparability. The duration of the intervention was 1 year, and after 1 year post-intervention, the nurse-in-charge was asked to complete a nursing competency assessment questionnaire, and the incidence of adverse events.

Intervention Type

Behavioural

Primary outcome(s)
Measured at 1 year pot intervention:
1. Nursing level: The nursing level was assessed using a validated tool consisting of four domains: specialty theories, technical operation, education and communication, and risk prevention. Each domain was scored from 0 to 25, with higher scores indicating better performance.
2. Safety adverse events include: Pressure injury, falling out of bed, tumble, unplanned extubation, infusion extravasation, etc.
3. Nursing satisfaction scoring: Nursing satisfaction was assessed using a self-made nursing satisfaction questionnaire.

Key secondary outcome(s)
There are no secondary outcome measures

Completion date
10/05/2023

Eligibility

Key inclusion criteria
1. Patients diagnosed with fractures of upper limbs, lower limbs, or other parts based on their symptoms, signs, or imaging findings
2. The patients' mental state, intelligence, and consciousness were normal
3. The patients were informed of this research and signed the informed consent

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
13 Years

Upper age limit
84 Years

Sex
All

Total final enrolment
384

Key exclusion criteria

1. Patients accompanied by heart, brain, and renal insufficiency
2. Patients accompanied by serious chronic cardiovascular and cerebrovascular diseases
3. Patients who had coagulation disorders and hematological system diseases
4. Patients who had malignant tumors and were treated by chemotherapy
5. The patients had history of drug or food allergy

Date of first enrolment
01/05/2021

Date of final enrolment
30/04/2023

Locations

Countries of recruitment
China

Study participating centre
Shanxi Bethune Hospital
No. 99 Longcheng Street, Xiaodian District
Taiyuan City
China
030032

Sponsor information

Organisation
Shanxi Bethune Hospital

Funder(s)

Funder type
Other

Funder Name
Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan

All data generated or analyzed during this study are included in the published article.

IPD sharing plan summary

Published as a supplement to the results publication