

2016; Milhem et al 2016; Vinstrup et al 2017; Vinstrup et al 2020). Concerning patient transfers, consistent use of assistive lifting devices reduces the physical workload and can thereby decrease the risk of work-related musculoskeletal disorders (Vinstrup et al 2020:1164).

Methods A mixed-method approach was used to introduce the robot to +300 caregivers at four hospitals in Denmark, Germany and the Netherlands between 2021-2023. The introduction includes a pre-survey to understand patient transfer activities and needs followed by a workshop to teach users about the robot and gather qualitative input. Selected caregivers are educated as 'super-users' who can teach colleagues about the robot. With an ethnographic approach, super-users frequently report about user experiences.

Results The results from the pre-survey show that transfers are often carried out by a single professional (45%), because 'there is no need to involve more colleagues' (61%). However, the data also indicates lack of personnel (32%) and time (36%). Such transfers constitute a high-risk situation for caregivers and patients. Here, the PTR Robot can actively support caregivers as almost all transfers can be performed safely by a single user. Current regulations prevent single-caregiver transfers and thus, a regulatory change concerning assistive technology is required. The qualitative findings show that the robot offers new ways of working with patient transfer as a higher variety of transfers can be performed with the PTR Robot compared to manual or semi-manual devices. To exploit this, caregivers need to be given time to explore these opportunities and change their daily routines and workflows. Management needs to support and prioritise this change. Introductory workshops need to arouse curiosity and motivation to work with the robot. This can best be achieved by conducting hands-on training in real environments and small teams, so employees can try out the robot in a familiar and safe setting. The concept of 'super-users' helps to engage the whole team.

To conclude, robots, if introduced appropriately, have the potential to support caregivers to focus on their and the patient's well-being by balancing resources better and creating new, efficient ways of working.

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5 THE IMPORTANCE OF WORKFORCE WELLBEING ON QUALITY AND PATIENT SAFETY

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Introduction The healthcare system faces major challenges regarding the well-being and safety of its workforce.¹ High stress and burnout have a negative impact on job satisfaction and can result in staff leaving the healthcare system, especially when staff shortages are a significant issue. Stress and burnout also have a detrimental effect on the quality of care and patient safety. Strategies to improve the well-being of healthcare workers are crucial.

In 2019, The National Academy of Medicine published the report 'Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being'.¹ The report demonstrated the significant extent and consequences of burnout among healthcare professionals in the USA.¹ Additionally, the report introduced a conceptual model to describe the various

elements and levels that affect burnout and well-being, including their relation to quality and patient safety.

Methods A narrative review was conducted, applying the framework from The National Academy of Medicine to the context of the Danish healthcare system.

Results The presentation will provide preliminary results and discuss frameworks, tools, and evaluation methods related to work well-being, psychological safety, and burnout.

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6 FLEXIBLE, FAIR, AND TRANSPARENT ROSTER PLANNING CONSIDERING PHYSICIAN WELL-BEING AND TRAINING OPPORTUNITIES ENHANCES JUNIOR DOCTOR JOB SATISFACTION AND PATIENT SAFETY

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Introduction Junior doctors undergoing formal postgraduate medical education are generally content with their jobs and eager to engage in continuous medical training to become skilled professionals.¹ They do, on the other hand, also have private lives with children and household, personal interests, health issues, and other obligations.² Roster planning plays an important role for junior doctors' educational opportunities, working patterns and over-all job and life satisfaction, and this should be kept in mind when planning, considering the well-known link between physician well-being and patient safety.³⁻⁴ The aim of this study was to identify and explore key elements in roster planning and how roster planning influences postgraduate medical education, working environment and well-being of junior doctors working in a Danish surgical department.

Methods We conducted individual semi-structured interviews building on dialog-based knowledge generation theory.⁵ A total of six semi-structured interviews with three junior doctors (at different training levels) and three rostering stakeholders (senior consultant responsible for rosters; administrative rota coordinator; and regional head of workforce management). Themes were generated through an epistemological inductive approach and analysed in a social constructivist scientific theory framework.⁶

Results When analysing the interviews, five main themes in relation to roster planning for junior doctors in training emerged: 1) Work-life balance; 2) Flexibility, cooperation, and trust; 3) Fairness; 4) Medical education; and 5) Power. Working as a physician sometimes means considerable physical and mental strain and entails deprivation of family time and social engagements. However, junior doctors perceive their clinical work as extremely meaningful; and this largely makes up for the personal sacrifices. Fairness in allocation of training opportunities, inconvenient hours, etc. is very important, but they are very prone to demonstrating flexibility and collegiality if planning is carried out with transparency, involvement, and reciprocal flexibility. It enhances well-being and job satisfaction among junior doctors when there is an overall focus on a good learning culture and when education is actively incorporated in the roster, e.g., fairness in training

opportunities and planned supervision. It may be difficult for junior doctors to navigate the planning process, as hierarchy and power structures in Danish hospital departments can be vague and opaque. The current educational counsellor system is believed to be flawed compared with classic staff management structures.

Job satisfaction, well-being, and flexibility of junior doctors in training is enhanced if roster planning is carried out with an eye for their well-being, working conditions and continuous training. This entails transparent leadership and management and carrying out roster planning with involvement, trust, and cooperation.

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7

MEASURING THE EFFECTS OF SIMULATION TRAINING FOR 3RD YEAR NURSING STUDENTS: AN EXPERIMENTAL STUDY

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Introduction This case study has examined the functioning and effects of simulation training within the bachelor's level nursing program at Copenhagen University College (KP). The study involved a range of data collection methods to better understand the various potential effects of simulation. The study was part of the Pathways to the Improvement of Quality in Higher Education (PIQUED) project, funded by the Danish Ministry of Higher Education and Science.

Research question

What are the effects of simulation training on knowledge gained, skills performance, critical thinking, and self-confidence for nursing students?

As simulation has become increasingly prevalent in nursing education, there has been a growing need for research on the effects of simulation (Mancini et al., 2019). A large number of studies have been conducted in the last 10-15 years, utilizing a range of qualitative and quantitative approaches (Hayden et al., 2014; Laschinger et al., 2008; Lapkin et al., 2010; Husebø et al., 2018; Yuan et al., 2012). However, the results of many of these studies have been unclear, often having small sample sizes, lacking control groups, and with some results pointing to positive effects of simulation while others fail to find any.

This study took an alternative approach, studying the effects of expanding simulation training for nursing students rather than using it as a substitute.

Methods The study conducted a controlled field experiment within the nursing program at the University College Copenhagen. 10 classes (approximately 40 students each) were block randomized into an intervention and a control group. The control group participated in a standard 5th-semester program (including a 3-hour simulation program), while the intervention group participated in an extended 3-day simulation program including full-scale simulation scenarios, peer-to-peer (P2P) sessions, and SMART GOAL Debriefings. The intervention group also participated in an additional 2-day simulation program in the 6th semester, where students were undertaking clinical training.

Surveys were conducted both prior to and immediately after simulation training, and covered self-assessment of technical and non-technical skills, expectations, stress levels, and perceived outcomes (Fuglsang et al., 2022). Additional data were collected at the end of clinical training in the 6th semester to measure the persistence of any initial effects. Data on before (after the 4th semester) and after (end of 5th and 6th semester) differences in grade point averages was also collected (Fuglsang et al., 2022).

Results Students in the intervention group who received extended simulation training reported markedly higher levels of professional self-confidence immediately after training. This effect for confidence in technical skills was double the size of the effect for non-technical skills. The effects on self-confidence in technical skills persisted at the end of the following semester for those that received low-intensity clinical training (health cares in a non-hospital setting). Students in the treatment group gained a small (though statistically insignificant) relative increase in grade attainment after the 5th semester, though this difference dissipated over time.

The study indicates that simulation training has substantial positive short-term effects on the professional self-confidence of nursing students and appears to have smaller positive effects on knowledge acquisition. Most of these effects are crowded out by other factors over time (notably intensive clinical training), but might have long-term positive effects for those that receive less intensive clinical training experiences. These results thus provide an indication that simulation training as part of nursing education can be used as an effective tool to support the transition to clinical training and practice.

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