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German Nursing Clinical Educators – Attitudes to Sustainability in a Multicentred Intervention Study

Background

The climate crisis is the biggest threat facing the world today. With a share of 4.4% of the total global emissions, healthcare contributes significantly to it (Karliner et al., 2019). Besides trying to reduce these emissions, improving global health is essential. In doing so, sustainability is a key to Planetary Health, reflected in the UN's 17 Sustainable Development Goals. With regard to nurses, the International Council of Nurses (ICN) has defined the mandate of care for environmental protection and sustainability in its Code of Ethics and has firmly anchored it in the new definition of nurses (ICN, 2025). Against this background, nurses must adapt to ecological, economic and social impacts in their work. They can act as changemakers in healthcare if they are qualified in sustainability. The importance of sustainability issues in nursing education is internationally recognized. However, there is also a lack of expertise in training staff and difficulties in integrating Planetary Health as a cross-sectional topic are evident, although national and international associations call for the integration of Planetary Health. The project "Sustainable Action in Nursing Vocational Education and Training: Curricular Integration of Planetary Health and Digital Competence" promotes such necessary qualifications of training staff. It was funded by the German Federal Ministry for Education, Family Affairs, Senior Citizens, Women and Youth and the European Union via the European Social Fund Plus (ESF Plus) as part of the Sustainable on the Job – Future-Oriented Vocational Education and Training (NIB) Programme.

Purpose and relevance

The project addresses a comprehensive challenge facing many vocational education and trainings (VET) and nursing facilities worldwide: How can sustainability competencies be integrated into practice-based professional learning through scalable qualification approaches. Clinical educators are one group of multipliers for sustainability in healthcare, integrating the content into practical training. In German-speaking countries, these nursing clinical educators are specially trained nurses who occupy a special place in nursing education. They guide trainees in practice settings, support them and are examiners in the practical examination. There are currently no scientific results on the attitudes of these individuals to sustainability. The aim is therefore to capture the attitudes as a status quo and to strengthen the awareness and sustainability skills of the clinical educators through interventions. In this project, they were systematically trained by the Universities of Applied Sciences Esslingen, Hannover and Bielefeld in order to promote sustainability competencies among future nursing staff.

Research questions

The following questions were formulated for the evaluation of the scientifically based qualification concept NahtToolkit:

- How pronounced are the sustainability attitudes of nursing clinical educators (T0)?
- How do the sustainability attitudes of nursing clinical educators change through the scientifically based qualification concept NahtToolkit (T1)?
- After completing the scientifically based qualification concept, how do nursing clinical educators assign sustainability competencies to themselves (T2)?

Theoretical framework

The concept of Planetary Health provides the theoretical framework for the intervention. It describes the interaction between man and nature and the dependence of human health on the world. The used NahtToolkit is based on the research-based and evaluated online resource NurSuSTOOLKIT (University of Plymouth, University of Jaen, Esslingen University, Maastricht University, 2024) and has been adapted for nursing clinical educators. It comprises a total of six modules on care-specific topics such as heat, vector diseases, resource conservation and the role of care in relation to Planetary Health. The intervention is linked to the basic module "Climate crisis and health within the context of nursing and clinical teaching". The evaluation is based on the Theory of the Planned Behavior. After that, attitudes always contain a behavioural intention, so that by collecting attitudes for sustainability, an intention for practice can be identified.

Research design

From October 2024 to February 2026, train-the-trainer seminars on climate change and sustainability took place at fourteen locations across three German federal states. The non-randomised, non-controlled multicentred intervention study examined clinical educators ($N = 354$) with regard to sustainability and based on the adapted Sustainability Attitudes in Nursing Survey 2 (SANS_2) (Richardson et al., 2016). It also traced the implementation processes in practice based on the Health Professionals Competence Scales (HePCoS) (Grebe et al., 2021). The Ethics Committee of the German Society for Nursing Science has granted ethical approval for this study. The first survey was evaluated descriptively and exploratively by means of SPSS. A confirmatory data analysis was used for the post-test and the follow-up.

Key findings

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The results of the baseline (T0) show that clinical educators are generally interested in sustainability issues ($M = 5.07$, $SD = 1.31$). After intervention (T1, $N = 347$) approval increases ($M = 5.62$, $SD = 1.32$). A two-sample-t-test was initially used as a conservative estimate, that was significant, $t(699) = -5.56$, $p < .001$, with a medium effect size ($d = 0.42$), indicating higher scores at T1 than T0. Overall, the results support the relevance of clinical educators for integrating sustainability-related competencies into practical nursing education. Our contribution introduces elements of the NahtToolkit, which was used to qualify the clinical educators. Besides, we also illustrate the implementation in practical instruction situations.

Conclusions and implications

Nursing clinical educators have an interest in sustainability and recognize its relevance to nursing care. The intervention strengthens positive attitudes toward sustainability by providing practice-oriented teaching materials about Planetary health that are freely accessible as Open Educational Resources.

The findings highlight the potential role of clinical educators as multipliers in integrating sustainability into workplace-based nursing education. Qualification measures right from the start can enable them to become changemakers. In this context, train-the-trainer approaches may be a transferable strategy for incorporating Planetary Health competencies into vocational education and training.

The experience gained from the train-the-trainer method is available for discussion. It will be necessary to offer further support for implementation in practice. Sustainable implementation in clinical practice requires additional institutional support, long-term professional development and interdisciplinary collaboration across healthcare professions.

References

- Grebe, C., Schürmann, M. & Latteck, Ä.-D. (2021). *Die Health Professionals Competence Scales (HePCoS) zur Kompetenzerfassung in den Gesundheitsfachberufen. Technical Report.* <https://doi.org/10.13140/RG.2.2.13480.08967/1>
- ICN. (2025). Renewing the Definitions of 'Nursing' and 'a Nurse': Final Project Report. https://www.dbfk.de/media/docs/newsroom/internationales/ICN_Definition-Nursing_Report_EN_Web_0.pdf
- Karliner, J., Slotterback, S., Boyd, R., Ashby, B. & Steele, K. (2019). HealthCaresClimateFootprint_092319. https://noharm-global.org/sites/default/files/documents-files/5961/HealthCaresClimateFootprint_092319.pdf
- Richardson, J., Heidenreich, T., Álvarez-Nieto, C., Fasseur, F., Grose, J., Huss, N. M., Huynen, M., López-Medina, I. & Schweizer, A. (2016). Including sustainability issues in nurse education: A comparative study of first year student nurses' attitudes in four European countries. *Nurse Education Today*, 37, 15–20. <https://doi.org/10.1016/j.nedt.2015.11.005>

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University of Plymouth, University of Jaen, Esslingen University, Maastricht University. (2024, 27. Mai). *Das NurSusTOOLKIT Rahmenkonzept für Nachhaltigkeitsbildung und -kompetenz*. <http://nursus.eu/de/>