Patient Education and Counseling 130 (2025) 108401

Contents lists available at ScienceDirect

Patient Education and Counseling

journal homepage: www.journals.elsevier.com/patient-education-and-counseling

Nurses' experiences with ad-hoc patient education in an Austrian acute care setting – A qualitative multicentric study

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ARTICLE INFO

Keywords:
Nursing
Ad-hoc patient education
Acute care setting
Nurses' experiences
focus groups

ABSTRACT

Objective: This paper aims to explore nurses' experiences with ad-hoc patient education (AHPE) in an acute inpatient setting.
Methods: We conducted nine focus groups with 34 nurses. Data was analysed using thematic analysis and the social-ecological model (SEM).
Findings: We identified two main themes. 1) characteristics of AHPE: the complexity, contents, and timing of AHPE, as well as features of successful AHPE. The central phenomenon was the subconscious and incidental nature of AHPE. This negatively impacts charting and recognition of patient education as a core nursing responsibility. 2) requirements for successful AHPE, using the SEM: a) interpersonal level: nurses' own expertise, personality traits, and attitude; b) intrapersonal level: relationship building, communication at eye-level, and recognising patients' receptivity and education needs; c) institutional level: environmental factors (time, space, and clear responsibilities within care teams) and the charting system; d) social level: recognition and appreciation for the value of patient education.
Conclusion: AHPE often occurs subconciously and unreflected. Patient education can positively impact patient outcomes; however, this requires a complex interaction of factors on multiple systemic levels.
Practice implications: Awareness raising for AHPE, its value for patients and society, and its proper charting is needed on multiple levels to ensure patient safety and the peace of mind of care teams.

1. Introduction

Patient education (PE) is an integral part of professional nursing [1] and a core responsibility of nurses in Austria [2]. Nurse-led PE can decrease hospital readmission, overall healthcare cost, and hospitalisation, and increase patients' health outcomes, quality of life, and self-care capabilities [3–6]. Bartlett [7] found that "for every dollar invested in PE, $3–4 were saved" (p.89). PE was even described as the "ultimate cost containment tool" [8] (p.31).

According to Bastable [9] nurse-led PE refers to educational initiatives and programs where nurses take the lead role in providing information, guidance, and support to patients. These initiatives are tailored to patients' needs, aiming to empower them to take control of their wellbeing. PE can increase patients' understanding of their diagnosis and treatment options and enhances self-care practices, thus improving health outcomes and patient satisfaction [9]. PE in theory distinguishes between information, instruction, and counselling [10]. *Information* refers to the provision of clear, accurate, and understandable explanations about any aspects relevant to patients' health and care, with the aim to help them comprehend their condition and care interventions planned for them [11] (e.g., the purpose of insulin injections). *Instruction* involves providing clear and specific guidance (including demonstrations), specifically regarding self-management of patients' health condition, e.g., taking medications or using medical devices [12] (e.g., self-administration of insulin injections). *Counselling* aims to empower patients to actively participate in their healthcare decisions. It involves a

Abbreviations: AHPE, ad-hoc patient education; ADL, activities of daily living; DGKP, higher service nurses (requiring a 3-yr. diploma or bachelor's degree), PE, patient education.

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https://doi.org/10.1016/j.pec.2024.108401
Received 3 March 2024; Received in revised form 26 June 2024; Accepted 8 August 2024
Available online 14 August 2024

multitude of pedagogical methods, including empathetic listening, providing relevant information and instruction, and offering emotional support [13] (e.g., discussion of all aspects of diabetes management, tailored to patients' needs and concerns). In Austria, PE is carried out by both higher service nurses and nursing assistant professionals in the hospital setting [2].

The nursing profession in Austria is characterised by an increasing diversity. Since 2008, nurses have undergone a 3-year bachelor's programme at universities of applied sciences, alternatively to the traditional 3-year vocational diploma programme. From 2024 onward, the academic education will entirely replace the diploma programme. Nurses with a 3-year education (both bachelor's and diploma) are referred to as "Higher Service in Health and Nursing Care[2]" (DGKP) in Austria. In addition, there are now several non-academic assistant nursing professions,[3] with varying competencies, durations of training and entry requirements. DGKP can delegate certain nursing tasks to assistant nurses. Whereas advanced nursing assistants have a certain degree of responsibility for their own actions, basic nursing assistants have to be supervised by DGKP [2] (§83). The composition of nursing staff varies significantly in different settings in Austria. For example, in 2019, in long-term care, assistant professions accounted for 68 %, while DGKP accounted for only 32 % of all staff. In contrast, in a hospital setting, only 14 % were assistant professions and 86 % were DGKP [14].

Despite the clear theoretical distinction between information, instruction, and counselling, these activities often overlap in clinical practice. Further, PE is often directly integrated into basic nursing care [8,15,16]. Tasks like providing activities of daily living (ADL) [17] support create an intimate space where spontaneous, i.e., ad-hoc patient education (AHPE) can take place [18]. However, this creates a double burden on nurses, as it requires the functional interaction of pedagogical skills and nursing expertise [8,15,16]. As PE often occurs parallel to other nursing tasks, it can be assumed that both DGKP and assistant nursing professionals alike provide it. According to Austrian law [2], "information, communication, and accompaniment" (§83) are tasks included in the profile of assistant professions. Counselling, however, is reserved only for DGKP (§14).

Considering the value of counselling as an empowering, preventative, and cost-saving tool, and the complexity of responsibilities regarding nurse-led PE in Austria, the original aim of this study was to explore how Austrian DGKP report on their lived experience of practicing ad-hoc patient counselling in acute care settings. However, DGKP could not clearly distinguish counselling from providing information or instructions to patients in ad-hoc initiated interactions (see 3.1.1.). Accordingly, during analysis we shifted our focus from ad-hoc counselling to AHPE instead.

2. Methodology

Compared to one-on-one interviews, focus groups have the advantage of generating discussions among participants, providing insights into the shared experiences and views of the group [19] on a particular topic.

2.1. Data collection

Nine focus groups were conducted between December 2021 and March 2022 with DGKP working in acute care settings in three Austrian hospitals of the same provider. Three focus groups were held at each site, each lasting approximately one hour. Using a semi-structured topic guide (Table 1), participants were asked to talk about their experiences with and perceptions of AHPE (as described earlier, we originally asked about counselling only) in their day-to-day work. One researcher led each discussion, another assisted with administrative issues. All focus groups were conducted in German, audio recorded, and then transcribed.

Table 1
Main talking points from the topic guide (translated from German).

Q1	Please explain what patient counselling* is for/means to you?
Q2	If you remember a specific situation where you provided patient care, can you tell us how you provided patient counselling* alongside?
Q3	How do you recognise your patients' need for counselling*?
Q4	What value do you ascribe everyday patient counselling* in nursing?
Q5	Imagine you work at your ideal ward. Please describe a successful routine patient counselling*.

* despite using "ad-hoc counselling" as instruction during the interviews, participants' responses can be interpreted as ad-hoc patient education (AHPE)

2.2. Ethical considerations

The study-site hospitals' ethical review boards granted ethical approval. Participants gave their informed consent and their contributions where pseudonymised during transcription. Participation was voluntary and during participants' work hours.

2.3. Participants & Recruitment

Participants were eligible if they worked in an in-patient acute care setting in direct patient care in one of the participating hospitals and were qualified as DGKP. No limitations were set regarding length or extent of employment or the field they worked in. Participants were not eligible if they had relevant additional qualifications (e.g., in PE or as advanced practice nurse). In total, 34 nurses (31 women, 3 men) took part. Ages ranged from 23 to 57 years (average: 34.4 years).

2.4. Analysis

Due to logistical circumstances related with the Covid-19 pandemic, data analysis commenced after data collection was completed. Transcripts were read repeatedly to maximise familiarity with the texts. Data was analysed using thematic analysis [20] and MAXQDA software. Individual codes were developed inductively and transferred from one transcript to another. This process helped to iteratively revise the codes and develop overarching themes and connections. During analysis, it became clear that the findings relating to the requirements of AHPE (see 3.2.) required a systems-theory analytic approach. Thus, to better structure our findings, we employed the socio-ecological model (SEM), often used to discuss barriers and facilitators concerning healthcare provision [21–23], which postulates an interdependence from the micro to the macro system levels [24–26].

3. Findings

3.1. Characteristics of ad-hoc patient education

3.1.1. Complexity

Participants experienced AHPE as complex and dynamic. They noted the gap between theory and practice, where the distinction between information, instruction, and counselling is often not relevant or possible due to the spontaneous nature of the situation:

> *"I'm having a hard time to differentiate: is it counselling, instruction, is it providing information? I find this hard because I know the definitions and termini. […] In practice, I just throw it all into one bucket." (GD1P2)*

Many participants noted that they did not reflect on AHPE, which further contributed to the difficulty of differentiating the concepts (see

[2] Translated from German: "Diplomierte Gesundheits- und Krankenpflege", abbreviated with DGKP

[3] Most relevant: basic nursing assistance ("Pflegeassistenz") and advanced nursing assistance ("Pflegefachassistenz").

also 3.1.5.). When patients' needs exceeded available resources (e.g., time and expertise), AHPE could also morph into a scheduled PE later or could result in referring patients to specialists or other professions. Participants further mentioned increasing multimorbidity and uncertainty regarding responsibilities in multiprofessional and -skilled teams (see also 3.2.3.) as adding to AHPE complexity.

3.1.2. Content

The content of AHPE depended on the needs participants identified (see also 3.2.2.). Participants explained their interventions when providing them, or when they noticed risk factors. They also provided AHPE on symptom management or therapy (e.g., pain management). Furthermore, many participants noted the need for AHPE after doctors' rounds:

> *"I'm sure we all agree, nurses are generally speaking the translators of physicians, yes. You'll especially notice that before examinations or during or after rounds, that patients check back or that they didn't understand. And then you more or less have to […] tailor to the receiver, erm, to explain, so that the patient can actually do something with it." (GD1P1)*

Interestingly, some participants also mentioned ad-hoc education between themselves:

> *"I have seen my last wound drainage system as a student (…). But you will always find someone who says, 'Come now, I'll explain that to you real quick'." (GD7P5)*

Further AHPE contents were organisational issues (i.e., post-discharge care arrangements), health promotion, and patients' fears or concerns.

3.1.3. Point in time

Participants regularly provided AHPE when delivering direct ADL patient care. AHPE was also provided after surgery (e.g., informing patients of their current condition, including required conduct), and during drug administration, hospital admission and discharge. AHPE was also initiated when participants noticed risk factors (e.g., insecure gait) that could result in complications (e.g., falls). Participants also viewed taking calls from patients' relatives as AHPE:

> *"As soon as doctors' rounds are done, the phone calls take no end." (GD7P5)*

3.1.4. Markers of success

Many participants thought that AHPE could decrease patient readmission and prevent avoidable complications:

> *"Patients come home, get admitted to the next hospital, come home again, get admitted again. This constant back and forth – counselling can stop that revolving door and get them to stay home for once, because maybe they got good counselling." (GD7P2)*

However, they acknowledged that the direct effect would be difficult to measure. Regardless, participants perceived AHPE successful when patients signalled to them, verbally (i.e., reaffirming or checking back) or non-verbally, that they understood what they were told, or when they could witness patients correctly applying their new knowledge. Patients' gratitude and contentment was also viewed as a confirmation for success, which could give participants a sense of accomplishment and reassurance that patients would be able to manage on their own.

3.1.5. Subconscious and incidental

Participants stated that nursing was almost synonymous with PE for them:

> *"Nursing is education. Because you are supposed to explain why you're doing something, how you are doing it and why you are doing it the way you're doing it." (GD9P1)*

Accordingly, they noted that AHPE is provided mostly subconsciously, unreflectively, and almost automatically:

> *"I think there is so much going on that we aren't even aware of, how much education we provide. Because that just evolves from a conversation." (GD9P1)*

Many participants believed that AHPE has a low status because it is so ubiquitous yet so subconscious that it did not even register as part of the care they provided. This is in stark contrast to the previous observations that AHPE can reduce hospital readmissions and complications.

> *"But if it's always so by the by and actually concerns everything you do, the value you see in it won't be that high." (GD3P4)*

3.2. Requirements for ad-hoc patient education (using the SEM)

3.2.1. Individual level (DGKP)

On the individual level, participants considered their own expertise, attitude, and personality traits. *"Not everyone can provide counselling, or they simply find it difficult."* (GD1P2). Regarding personality traits, participants emphasised the value of empathy, authenticity, creativity, confidence, and self-efficacy. For attitude, they highlighted patience, confidentiality, respect, and approachability. Participants valued their expertise which they viewed as a combination of their theoretical knowledge and experience. They stressed the importance of both their basic and ongoing education and training, which they thought should be facilitated by their employer. Their clinical practice provided them with valued opportunities for in-depth, hands-on practical learning, skill-development, and to gain experience. Some participants noted that they encountered discrepancies between what they were taught as students and what they experienced in practice, although they did not provide any detail. Others stated that they appreciated not only learning from each other but also from students whom they instructed during their internships. Participants also discussed the problem that they often were not aware when they provided AHPE (see also 3.1.5.) which could result in insufficient charting (see also 3.2.3.).

3.2.2. Interpersonal level (DGKP & patients)

Many participants highlighted that AHPE required relationship building with patients:

> *"Ultimately, for me, counselling is more (…) on the basis of a communicative relationship built on a basis of trust." (GD3P6)*

The need to communicate at eye level was emphasised, meaning that jargon had to be avoided and language barriers considered. However, one participant noted a conflict they felt between wanting to communicate at eye level and needing to maintain their professional image in front of their colleagues, by demonstrating the proper use of professional nursing vocabulary. AHPE could be initiated by patients (e.g., after doctors' rounds or when they had specific concerns) or by DGKP (see 3.1.3.). Further, participants emphasised the need to be aware of patients' receptiveness towards AHPE:

> *"If a patient doesn't want to participate, doesn't understand, or simply doesn't feel like it because there's another problem or because they just received a bad diagnosis, then I think counselling and instructing often makes little sense or has to take place at another time." (GD3P5)*

Navigating these interpersonal challenges requires empathy, experience, and expertise, thus highlighting the link between the individual and interpersonal levels.

3.2.3. Institutional level (hospital)

Having enough time and a dedicated room, i.e., not the patient room where other patients and their relatives could listen in, were among the requirements most frequently mentioned. Participants also felt that they had too many responsibilities, which made it difficult to focus on AHPE:

> *"The difficult thing, I think, is often when I take the time to educate and yet in the background, I always have the feeling, ah, I can hear the nurse call from over there. I have the feeling that the others can't cope. I feel like I have to make sure I get it done quicker. Then I become less sensitive to the person I'm talking to (…) because my head can't concentrate 100 % on it, because I'm already somewhere else. And a lot of quality is lost." (GD3P2)*

They further emphasised the role of the care team. Many criticised the staff shortage which increased the pressure on care teams. Unclear responsibilities within (diverse) care teams could further impede AHPE:

> *"If the patient has been there for a few days and you haven't been there for the past few days, you often assume that they have already been informed about this." (GD3P5)*

> *"We have great nursing assistants […]. But in certain things you are always last, and you are the one who has to pay for it, has responsibility for it and doesn't even know the patient." (GD6P1)*

Another challenge participants discussed related to their difficulties with charting AHPE, including not knowing what, when, or where to chart within the electronic system. Many noted that the charting system was too time-intensive to use. On the other hand, they suspected that not properly documenting AHPE could further exacerbate the staff shortage.

> *"There are a lot of things that you can check off, but you also need time to read through the entire catalogue." (GD8P2)*

> *"If you were to include all of this in our working hours and chart it in this way, then you would see that the staffing level would no longer fit at all." (GD7P2)*

3.2.4. Societal level (community & public policy)

On the societal level, participants felt that their AHPE efforts were not adequately recognised, which they assumed impacted on the resources (i.e., time and staff levels) they had available for AHPE:

> *"And I think that that [acknowledgement] would be a very, very big step and that it would be better to take time for it if it had a different status within this system." (GD7P2)*

Here, the links to the individual and institutional levels become apparent: AHPE seems to be a phenomenon that is often not consciously registered by nurses as it is such an integral part of their everyday activities. This leads to AHPE often not being adequately documented, thus not considered in institutions' human resources planning. Furthermore, as nurses themselves are not even actively aware of AHPE, this translates to it being largely unrecognised by society, which in turn does not improve nurses' lacking awareness of the value and reflexivity of their PE efforts and the availability of adequate resources. Fig. 1 illustrates this interdependence.

4. Discussion and conclusion

4.1. Discussion

This study aimed to explore ad-hoc patient education (AHPE), i.e., occurring spontaneously alongside day-to-day nursing activities, in acute in-patient care settings from the perspective of higher service nurses (DGKP) in Austria. The nature and required conditions for nurse-led PE is not yet well understood [27]. Its outcomes though are well documented: improved patient outcomes, empowerment, and satisfaction, as well as resource- and money-saving potential, decreasing hospitalisation and hospital readmission rates [3–6]. The latter is of particular importance given the healthcare workforce shortage currently affecting many European countries [28].

Our findings highlight the subconscious and incidental nature of AHPE, which adds to its overall complexity. In theory [10], PE distinguishes information, instruction, and counselling. However, our findings echo the views of other authors [8,15,16] as our participants often found it impossible to differentiate between these concepts, despite being aware of the theoretical difference. There might be several reasons for that. Firstly, AHPE could start out as one thing, e.g., providing information on thrombosis, and then seamlessly transition into something else, e.g., an instruction on preventative measures such as antithrombosis exercises or stockings. Secondly, given the workforce shortage and resulting time pressure [28,29], nurses might simply lack the time or headspace for post-hoc reflection of AHPE, which would be required to make sense of the interaction that had just occurred, as well as for adequate charting. And thirdly, the German term for counselling ("Beratung") is often used synonymously for each of the three distinct PE activities. This distinction is important though, as only higher service nurses with a 3-yr. academic or vocational education (DGKP) may provide patient counselling, according to Austrian law [2]. In light of a) the increasing pathways into the nursing profession in Austria and the resulting diversity of care teams; b) the fact that AHPE takes place alongside everyday nursing activities, which are provided by assistant professions and DGKP alike; and c) the fact that counselling is often indistinguishable from other PE activities, the question of responsibility for PE needs to be addressed on a very practical level. Further research is needed to determine exactly what kind of PE is currently provided by which kind of nursing professional and how best to organise the division of labour and responsibilities within care teams.

Similarly problematic is an aspect concerning the interpersonal level, i.e., the nurse-patient relationship. Participants described that successful PE requires relationship building, a finding echoed by Jerofke-Owen and Bull [30]. This could again be challenging due to the diversity of care teams and the resulting fragmentation of responsibilities for patient care. As more basic nursing tasks such as ADL support are delegated from DGKP to assistant professions, opportunities for relationship building may diminish. Further, the question arises whether nurse

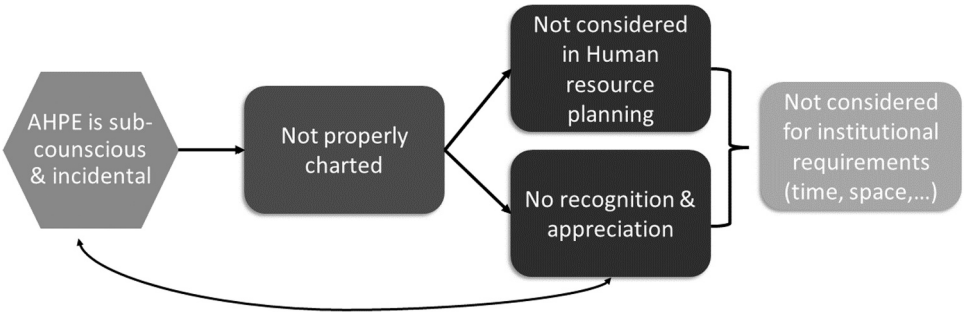

Fig. 1. Central phenomenon.

assistants, who have less training and fewer qualifications but increasingly more direct patient contact, have the necessary skills and expertise to adequately recognise and address patients' educational needs.

Our participants seemed to have difficulties with the proper charting of AHPE. Many did not know what, when, and where to chart while others felt that the electronic charting system was too time-intensive or potentially inadequate to properly chart AHPE. Appropriate documentation of nursing activities is not only required for ethical and legal reasons, but also to ensure the continuity of patient care and care planning [31]. If AHPE is not adequately documented, this could mean that care teams are not aware of a patient's knowledge base and need for further education. This could negatively impact their self-management abilities and self-determination, which could lead to worse health outcomes.

Regarding institutional requirements for AHPE, many participants noted the lack of time and a quiet, private space. Both these concerns are interesting considering that AHPE often takes place alongside the provision of everyday activities such as ADL support. It seems unpractical to pause a nursing activity such as assisting with personal hygiene, to go to a designated room. Rather, privacy should be ensured as much as possible in any situation. Nurses should ensure to close doors or use dividers where possible. Should AHPE require more privacy and time than currently available, Hummel-Gaatz and Doll [32] advise nurses to have defined times and designated spaces, thus effectively separating PE from other nursing tasks. Similarly, it might not always be the case that nurses require extra time for AHPE as it occurs alongside other activities. However, participants made clear, nurses require peace of mind to be able to focus on AHPE and their patients.

Of particular concern is participants describing having to "translate" doctors' rounds to patients in layman's terms. There could be potential legal ramifications, as nurses might not have the required competences and knowledge to adequately explain medical test results, diagnoses, or treatments. For this reason, as well as the time pressure nurses already face, it seems advisable to refer patients back to their attending physician if they have any medical concerns.

To the best of our knowledge, this was the first qualitative study investigating nurses' experiences with and perceptions of ad-hoc patient education. For Austria, this is of particular importance given the increasing complexity of pathways to enter the nursing profession and the resulting uncertainty regarding responsibilities and required competencies for PE within diverse care teams in acute in-patient settings. A distinct strength of our study is our large number of participants, including a broad age range and a plethora of disciplines (both surgical and conservative). Initially, we aimed to focus merely on counselling as part of nurse-led PE, as the Austrian law reserves this activity for DGKP only [2]. However, we were forced to change our focus from counselling to education due to the subconscious and complex nature of AHPE and the challenges we faced resulting from unclear use of terminology. We suggest that future studies employ a methodology that enables participants to reflect upon their PE efforts prior to taking part in focus groups, e.g., by using a diary. This could enable a more nuanced discussion. Due to logistical limitations in connection with the Covid-19 pandemic, data collection and analysis had to take place consecutively. Iteration thus was not possible, and we cannot assure that data saturation was reached. We discussed our findings on multiple occasions with other academics and practitioners in the nursing field, hence enabling peer validation. Our findings are specific to one hospital provider in Austria and may therefore not be transferable to other countries, providers or settings.

4.2. Conclusion

AHPE often occurs subconsciously and unreflected. Patient education can positively impact patient outcomes; however, this requires a complex interaction of factors on multiple systemic levels.

4.3. Practice implications

Awareness-raising campaigns could help to increase appreciation for nurse-led PE on the individual, institutional, and societal level. Nurses should be encouraged to reflect on their AHPE activities and how to properly chart them, not least to make them visible and more appreciated on an organisational and societal level. Institutions should revise nurses' AHPE activities and consider whether more resources (e.g., time, space, personnel) are required and how to make them available. A larger-scale campaign could further help to raise public awareness for the value of nurse-led PE, which could raise the profile and social standing of nursing as a profession and help to increase pressure on policy makers to provide the required resources (e.g., adequate funding). The social and economic value of nurse-led PE [7] should be emphasised.

Regarding adequate charting, institutions might want to consider revising their (electronic) charting systems to make them more user-friendly and less time-intensive to use. A participatory design approach could centre the needs and experiences of nurses using the systems, thus increasing usability.

Care teams should clearly negotiate and communicate responsibilities of individual team members, especially if they have large diversity regarding training, skills, and competencies. Responsibilities should also be clear within multidisciplinary teams. Team members conducting PE should ensure that they have the personal attitude, expertise, and ideally characteristics that enable them to communicate effectively with patients.

Ideally, while PE can and will always be spontaneously initiated to a certain extent, the goal should be to anticipate patients' educational needs. It may be advisable to identify specific areas where nurses want to ensure that patients receive PE before discharge to decrease the risk of readmission or complications and to increase self-care competencies. This will likely be on a discipline, i.e., ward specialisation basis, depending on the respective clientele and their needs. Care teams could collectively identify these educational needs and devise checklists, which could then be used to ensure that patients receive the necessary PE. Patients' educational needs should further be assessed and evaluated as early as possible as part of the nursing process.

We confirm all personal identifiers have been removed so the persons described are not identifiable and cannot be identified through the details of the story.

Funding

This research was carried out as part of the authors' paid employment and did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

CRediT authorship contribution statement

Alice Spann: Writing – review & editing, Writing – original draft, Visualization, Project administration, Formal analysis, Data curation. **Alfred Steininger:** Writing – review & editing, Project administration, Methodology, Investigation, Data curation, Conceptualization. **Margareta Jukic-Puntigam:** Project administration, Methodology, Investigation, Data curation, Conceptualization. **Simone Grandy:** Writing – review & editing, Supervision, Methodology, Investigation, Conceptualization.

Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: ASP, AST, and MJP have a background in nursing and are employed by the provider of the hospitals in which the data was collected. However, apart from requesting that individual participants' quotes should not be

attributable to any specific one of the three research sites, the hospital provider did not interfere with the conception, execution, analysis, or presentation of this research.

Acknowledgements

We gratefully acknowledge the support of Zita Kis Dadara for her consultation on the topic. We would like to thank all the participants who graciously shared their time and experiences with the research team. Our gratitude further goes to all our colleagues who have discussed our findings with us, thus helping to improve our analysis and presentation.

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