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ORIGINAL ARTICLE

Pressure ulcer risk assessment—registered nurses´ experiences of using PURPOSE T: A focus group study

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Abstract

Aim: To evaluate the clinical usability of PURPOSE T among registered nurses in Sweden.

Background: Pressure ulcers are an adverse event and a problem worldwide. Risk assessment is a cornerstone, and a first step in pressure ulcer prevention is to identify possible risk patients and/or pressure ulcers. There are many pressure ulcer risk assessment instruments; however, they are not updated and/or evidence-based. PURPOSE T has been psychometrically evaluated in the UK and in Sweden with good inter-rater and test–retest reliability, and convergent validity was reported as moderate.

Design: A descriptive study design with a qualitative approach.

Methods: A total of six focus group interviews with 29 registered nurses were conducted. They were recruited from May 2018 to November 2018 from a university hospital and two nursing homes in Sweden. Data analysis was performed as described by Krueger. The study adheres to the COREQ guidelines.

Results: Four categories were identified: "An efficient risk assessment instrument performed at the bedside," "Deeper understanding and awareness of risk factors," "Benefits compared to the Modified Norton Scale" and "Necessity of integration of PURPOSE T in the electronic health record and team collaboration."

Conclusion: The registered nurses acknowledged an overall positive perception of PURPOSE T´s clinical usability. Future research is needed to evaluate the feasibility of PURPOSE T.

Relevance to Clinical Practice: PURPOSE T has the potential to replace outdated pressure ulcers risk assessment instruments that are used today.

KEYWORDS
Focus groups, nurses, pressure ulcer, risk assessment, usability

1 | INTRODUCTION

International guidelines agree that structured risk assessments are a cornerstone in pressure ulcer prevention (European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, & Pan Pacific Pressure Injury Alliance, 2019). Over the last 60 years, over 40 pressure ulcer risk assessment instruments (PU-RAI) have been used with limited methodological development and practical foundation (Stansby et al., 2014). When evaluating a standardised risk assessment instrument, focus is typically on the psychometric properties rather than their demonstrated applied value for clinicians and the clinical populations they serve (Mash & Hunsley, 2005). However, clinical utility of an instrument should be regarded as important, as, in addition to the psychometric properties, it has to be acceptable to the user and tested in the clinical arena (Barbara & Whiteford, 2005).

2 | BACKGROUND

Pressure ulcers are a frequently occurring problem in health care worldwide and are considered as adverse events. Up to half of the patients in hospital settings have experiences of pressure ulcers, and in Sweden, every seventh patient admitted to hospital care develops a pressure ulcer (European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, & Pan Pacific Pressure Injury Alliance, 2019; SALAR, 2019). Pressure ulcers are burdensome for both patients and the healthcare system, causing huge human suffering and costs (Demarré et al., 2015; European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, & Pan Pacific Pressure Injury Alliance, 2019; Gorecki et al., 2012). Length of stay in hospital is greater in individuals who develop a pressure ulcer than those who do not (European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, & Pan Pacific Pressure Injury Alliance, 2019). Patients with a hospital acquired pressure ulcer (categories II-IV) in Sweden have an extended length of stay in hospital, with an average of 15.8 days (Gunningberg et al., 2019). The first step in pressure ulcer prevention is to identify patients at risk. In clinical practice, this is facilitated by having a structured approach using a PU-RAI (European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, & Pan Pacific Pressure Injury Alliance, 2019). It is important to work with a validated evidence-based PU-RAI when assessing patients, to ensure consideration of the risk factors most predictive of pressure ulcer development and inform subsequent care planning and delivery.

In Sweden, one of the most common PU-RAI used is the Modified Norton Scale, which has a numeric scoring, including seven risk factors (score 1–4): mental condition, physical activity, mobility, food intake, fluid intake, incontinence and general physical condition. A total score of ≤20 indicates that a patient is "at risk" for pressure ulcers. The scale was originally developed in the United Kingdom (UK) in 1962 from clinical experiences with a pressure ulcer research tool and was found to be correlated with pressure ulcer incidence and thereafter, used as a clinical PU-RAI (Kallman & Lindgren, 2014). A recent review shows that the traditional PU-RAIs are often limited in their methodological development (Stansby et al., 2014). This is demonstrated by limited evidence of acceptability/usability evaluation with clinical nurses and poor involvement of service users in development activity (Coleman et al., 2014). Furthermore, they do not include all risk factors that are important according to the latest evidence in international guidelines, such as skin status and circulation (Coleman et al., 2013; European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, & Pan Pacific Pressure Injury Alliance, 2019). Therefore, the Pressure Ulcer Risk Primary Or Secondary Evaluation Tool (PURPOSE T) was developed to address conceptual, methodological and practical limitations (Coleman et al., 2016).

PURPOSE T was developed in the UK using "gold standard" instrument development methods (Mokkink et al., 2010; Research Center for Drug Evaluation, 2009; Steyerberg, 2019). The development methods incorporated a systematic review of pressure ulcer risk factors, a consensus study with service user involvement, conceptual framework development, pre-testing with clinical nurses and clinical evaluation in acute and community healthcare settings (Coleman et al., 2013, 2014, 2016, 2018). PURPOSE T differs from other traditional PU-RAIs, as it separates "patients at risk of developing pressure ulcers" (primary prevention), "patients that already have pressure ulcers" (secondary prevention) and "patients not at risk at the moment." The instrument is integrated into a three-step assessment process: Step 1: A screening assessment that compromises mobility, skin status and clinical judgement, which allows the patients who are clearly not at risk to be quickly screened out. Those with a potential risk or an actual pressure ulcer continue on to step 2: full assessment of independent movement, sensory perception, moisture, diabetes, circulation, nutrition, medical devices, detailed skin assessment and previous pressure ulcers. Step 3 requires a consideration of step 2 in order to choose one of the three assessment decisions: "no pressure ulcer not currently at risk," "no pressure ulcer but at risk" or "pressure ulcer" https://ctru.leeds.ac.uk/purpose/purpose-t/. Unlike traditional PU-RAIs, which incorporate numerical scoring often used as a basis for planning patient care, PURPOSE T uses colour to give a weight to risk factors and guide the "risk assessment decision," inspiring a more reflective assessment of the patient (Coleman et al., 2016).

PURPOSE T has been psychometrically evaluated in the UK, but not in any other country (Coleman et al., 2018). Therefore, we conducted a psychometric evaluation in Sweden to evaluate its reliability (inter-rater and test–retest) and validity (convergent validity) (Hultin et al., 2020). PURPOSE T was translated from English into Swedish, according to World Health Organization translation guidelines (WHO, 2010), as well as PURPOSE T language translation guideline (Coleman et al., 2018). Twenty-nine registered nurses from different settings were included, conducting risk assessments in 235 patients, in total. The psychometric evaluation reported very good inter-rater and test–retest reliability for the overall assessment decisions, and convergent validity was reported as moderate to high

(Hultin et el., 2020), supporting the results of the original psychometric evaluation undertaken in the UK (Coleman et al., 2018).

Having demonstrated the psychometric properties of PURPOSE T in the Swedish context (Hultin et al., 2020), we now need to evaluate the clinical utility of the instrument, often referred to as usability and feasibility (Glad et al., 2012). According to Glad et al., (2012), usability incorporates consideration of the acceptability of the instrument to practitioners, in terms of ease of use and the format; moreover, it facilitates the acquisition of useful clinical information. The instrument has to be reasonable, relevant and worthwhile (Glad et al., 2012).

The UK evaluation of PURPOSE T incorporated focus groups and interviews with clinical nurses (in a classroom environment) in the development phase of the instrument and considered nurses' experiences of using PURPOSE T during the clinical validity study (through review of expert nurse field notes) (Coleman et al., 2016). However, neither approaches formally explored general registered nurses' views on the usability of PURPOSE T in direct clinical practice. The aim of this study was to evaluate the clinical usability of PURPOSE T among registered nurses in Sweden.

3 | METHODS

3.1 | Design

A descriptive study design with a qualitative approach was conducted in order to gain a deeper understanding of the nurses' experiences regarding the clinical usability of PURPOSE T. A qualitative approach is useful for gathering new rich, first-hand and straightforward description about a phenomenon (Patton, 2015). The considered criteria for reporting qualitative research (COREQ) (Tong et al., 2007) were used (File S1).

3.2 | Setting

The study was conducted with registered nurses at a university hospital, including six hospital wards from the departments of geriatric, cardiology, surgery and spinal cord injury, as well as two nursing homes in Sweden. Pressure ulcer prevention is a prioritised area, as well as a recognised national quality indicator, in the Swedish healthcare system, and prevalence studies have been conducted every year since 2011 (SALAR, 2019). Registered nurses are mainly responsible for conducting risk assessments on patients and its documentation in the electronic health record. In Sweden, all hospitals and nursing homes have access to national pressure ulcer prevention guidelines (Hommel et al., 2017); specifically, all hospital wards and nursing homes that were included in this study had access to and were supposed to comply with these guidelines. All patients 65 years and older and those who are bedridden or with low mobility should be risk assessed with the Modified Norton Scale and have a skin inspection within 24 hours following admittance. Thereafter, all patients found to be at risk for pressure ulcers should receive preventive interventions.

3.3 | Participants, recruitment and training

All registered nurses (hereinafter referred to as nurses) who were recruited for a previous psychometric study regarding PURPOSE T (Hultin et al., 2020) also agreed to participate in the focus groups for the present usability study. The first author established a relationship with the present workplaces to come in contact with participants. Thereafter, information about the study was presented at workplace meetings at the hospital wards and nursing homes. The nurses who were interested were recruited after the meeting with the first author that is a purposive sampling approach. Inclusion criteria were nurses who had worked at the wards or nursing homes for >6 months. The first author trained the nurses in how to perform risk assessments with PURPOSE T. The training included an oral presentation and seven case study vignettes (about 90 minutes), as well as performing one or two clinical assessments on patients using PURPOSE T. Thereafter, each nurse conducted a risk assessment for four to 20 patients.

3.4 | Data collection

Focus groups interviews were used for data collection as the group interaction enables members to express views that might not be disclosed in an individual interview and to understand how the members feel and what they think about an issue. Group interaction supports participants in remembering events to gather opinions. The focus group method is suitable when the objectives of a study are to gather the perspective of homogenous groups (Krueger, 2015), in this case registered nurses who risk assessed patients using PURPOSE T. The first, second and last author in the present study developed a questioning route, focussing on nurses' experiences of using PURPOSE T when performing risk assessments of patients, see Table 1. The questioning route was pilot tested by presenting and discussing the questions at a seminar with senior nurse researchers. Minor modifications were made, for example rephrasing questions. The questioning route was also tested in the first focus group interview in the present study. However, no changes were made, and the data were included in the analysis. The focus group interviews (Kreuger, 2015) were held by a moderator whose role was to facilitate the group discussions by asking the questions detailed and follow-up with probing questions when appropriate. All participants were encouraged to talk freely and to be involved in the dialogue. All questions from the questioning route were discussed in the focus groups interviews. An assistant moderator observed the group interaction, took field notes and summarised the discussion towards the end of the interview. The assistant moderator checked that all relevant issues were covered and asked the moderator and participants whether the summary accurately reflected their discussions; lastly,

TABLE 1 Questioning route.

Opening question	*Probing question*
What is your name and how do you usually inform patients about pressure ulcers at your ward?	
Main questions	
Can you tell me about your experiences of using PURPOSE T?	Can you give an example of something that has not been good? Can you give an example of something that has been good?
Do you agree with the outcome of PURPOSE T?	Can you give an example of a risk patient/ not a risk patient regarding the outcome?
Did you have any practical problems?	Do you have any suggestions for improvements regarding PURPOSE T?
Does PURPOSE T fit into the nursing care you provide at your ward?	In what way? Can you give some examples?
If you compare PURPOSE T with the Modified Norton Scale, what are your thoughts?	Advantages with the Modified Norton Scale compared to PURPOSE T? Disadvantages with the Modified Norton Scale compared to PURPOSE T?
What PU-RAI would you prefer to use in the future?	
Ending question	
Is there anything more you would like to add?	

the moderator asked whether the participants had anything further to add. After each interview, the field notes were discussed between the moderator and assistant moderator. Each focus group interview included one moderator and one assistant moderator.

A total of six focus group interviews were conducted, with a range of three to five participants. The participants were given available dates and chose when to participate. The focus group interviews at the nursing homes were separate from the hospital, where the focus groups were mixed with participants from different hospital wards. Three individual interviews were added for those who could not attend the focus groups. The interviews were conducted between May 2018 and November 2018 and lasted between 35 and 60 minutes. All focus groups and individual interviews were audio recorded. The activity and interaction in the groups were free and flowing, and all participants were active in the discussions. The focus group interviews took place approximately one week after the nurses had completed their risk assessments, except for one group, which due to summer vacation, was performed after six weeks. The interviews were held in a separate room away from the clinical area in the hospital ward or nursing home.

The focus group interviews and the individual interviews were alternately held by the first, second or last author. The first author participated in all focus groups, either as a moderator or as an assistant moderator. The individual interviews were held by the last author over the phone, using the same questioning route.

3.5 | Data analysis

The data included summaries from the assistant moderator and transcribed interviews. The interviews were transcribed verbatim by a professional transcription service. Data analysis was performed as described by Krueger (2015). Specifically, the method focussed on the influence of interaction in the group and aimed to understand how people feel or what they think about an issue. The analysis proceeded as follows: first, a summary was shared directly after the focus group, by the moderator and the assistant moderator, regarding what information had been provided, the interaction in the group, and how many minutes the focus group lasted. Second, the text from the interviews was read by the first, second and last author, repeatedly to get a broad picture of the data. Third, meaning units were identified and coded. Codes with similar meanings were grouped, according to their differences and similarities, forming categories. Lastly, comparisons were made during the whole process between categories and the text as a whole, by the first, second and last author (Krueger, 2015). All steps in the analysis process were characterised as flexible, and each step was discussed with co-authors until consensus was reached.

3.6 | Ethical considerations

The data collection followed the Declaration of Helsinki (The World Medical Association, 2013) as well as national and local ethical guidelines (CODEX, 2021). The study was approved by the Regional Ethical Review Board, Uppsala, Sweden (# 2018/196), prior to the data collection. Participants received written and verbal information about the study and gave their verbal consent prior to the focus groups and the interviews. The data were recorded and stored on a secure server at the university.

3.7 | Trustworthiness

To ensure the rigour in the methodology, several key components of qualitative research were considered (Tong et al., 2007), especially concerning reflexivity as the first author is a nurse and has worked in hospitals and elderly care, providing her with some

pre-understanding about the subject. The first author also participated in all focus groups, either as a moderator or as an assistant moderator, and therefore needed to take responsibility for her situatedness within the research and the effect that it may have on the setting, on the participants, the questions being asked during focus groups interviews and the following data analysis. All authors have continuously and jointly discussed and reflected in order to avoid that pre-understanding may have affected the result.

The transcribed text was read repeatedly by the first, second and last author; thereafter, the text was divided into meaning units and codes. Then, the categories were checked and discussed with the first, second and last author to ensure agreement with the whole text material. Thus, the categories were developed and given titles as close to the original text as possible. To increase credibility, a questioning route was used in all interviews to ensure that the same questions were asked and to avoid variation. Dependability was ensured by providing a careful description of the method. Furthermore, to ensure confirmability, quotations were used to illustrate the result and confirm the categorisation (Krueger, 2015), and investigator triangulation was used to validate the findings (Patton, 2015).

4 | RESULTS

The participants (n = 29) were two men and 27 women, aged 23–65 years old (median 35 years). Their working experiences as a registered nurse varied from six months to 34 years (median five years), and the length of time working at the ward/nursing homes varied from six months to five years (median one year). Five of the included nurses had a one year master´s degree in nursing. The clinical usability of PURPOSE T among nurses is described in four categories (Table 2). The categories are presented with text and quotations.

4.1 | An efficient risk assessment instrument performed at the bedside

Most of the nurses stated that PURPOSE T was surprisingly efficient; it was obvious what risk factors to assess and what to ask the patients. PURPOSE T was easy to learn and understand in order to conduct all three steps in the instrument. Another advantage was that it was found to be valuable in assessing the patient at the bedside, instead of receiving the information in second or third hand from the assistant nurses. Rather than just looking at the electronic health record on the computer screen in the office as the respondents had been used to with the Modified Norton Scale, they appreciated meeting and talking with the patient. It also made it possible to inspect the skin. With PURPOSE T, the nurses emphasised that it was not possible to perform the assessment without actually meeting the patient bedside. Furthermore, the instrument not only demonstrated the pressure ulcer risk, but it also contributed to an overall picture of the patient's general condition, facilitating consideration of other nursing needs, which should be included in the patient´s care plan.

TABLE 2 The usability of PURPOSE T according to nurses.

Categories
An efficient risk assessment instrument performed at the bedside
Deeper understanding and awareness of risk factors
Benefits compared to the Modified Norton Scale
Necessity of integration of PURPOSE T in the electronic health record and team collaboration

> "You get answers [from PURPOSE T] on how the patient has a risk of pressure ulcers and based on that you can build a care plan. It allows for several possibilities and causes for risk of pressure ulcers." Focus group 2

The instrument´s initial step consists of a screening of risk patients. The nurses expressed that they appreciated this first step, which clearly guided them if it was necessary to perform a "full" detailed assessment on a patient or not.

> "At this first step, you could immediately rule out if there was no risk." Focus group 1

The nurses agreed that it is important to actually look at the skin, and they appreciated that PURPOSE T included a skin assessment. Many of the nurses expressed that a PU-RAI should include a skin assessment. PURPOSE T served as a reminder of the most common areas exposed to pressure, which should be checked during the skin assessment.

> "I think it's great that there actually is a real skin assessment included, so you have to look at the whole patient." Individual interview 3

The inclusion of a comprehensive set of risk factors guided the assessment but nurses expressed they appreciated that PURPOSE T encouraged them to reflect on these and use their clinical competence and judgement within the assessment process rather than separating them from it.

Some of the nurses expressed that the instrument was surprisingly quick and easy to complete. Even though they must perform the assessment at the bedside, it went smoother than expected. The estimated time to assess all risk factors was less than ten minutes, and the patients who ended up in the screening only were assessed in less than a minute. The instrument was not seen as time-consuming; instead, it was perceived to save time since one did not have to perform the whole assessment on all patients.

"Many patients go through the quick 'screening', and it is faster than the Modified Norton Scale; we do not have to carry out the full risk assessment on all patients." Focus group 4

"Even though there were patients lying in the beds not being able to move themselves, it only took a few minutes 'to assess them with PURPOSE T' when we worked together." Focus group 6

4.2 | Deeper understanding and awareness of risk factors

The nurses expressed that PURPOSE T was comprehensive due to the included risk factors and the skin assessment. They became aware of the risk factors such as sensory perception, moisture, mobility, diabetes, medical devices, detailed skin assessment and previous pressure ulcers, which are all important when assessing patients for pressure ulcer risk. These risk factors contributed to a deeper and more comprehensive analysis of the assessment. Therefore, the nurses expressed that through a deeper understanding, they became more conscious of the importance of assessing these risk factors in pressure ulcer prevention. The overall understanding increased their knowledge and taught them what risk factors to focus on during the assessment.

"I think you got a better reminder of what risk factors to be aware of when going through PURPOSE T." Individual interview 2

However, there were some nurses who thought the instrument was difficult, specifically, the items sensory perception, perfusion and independent movements. These items were "new" for them, as they were not included in their usual risk assessment tool, that is the Modified Norton Scale. Some of the nurses distinguished the new risk factors as something positive, and as a learning moment, while others experienced it as challenging. Nevertheless, even though the new risk factors in the instrument were found challenging by some of the nurses, they expressed that it might be a matter of education and training to use and understand all of the risk factors in the instrument.

Nurse 1, "It was difficult to assess some of the risk factors; I felt unsure of what is assessed as risk and not risk…". Nurse 2, "Yes, I think it was difficult to assess, independence movement, what were, big and small movements?…". Nurse 1, "Yes yes, but I always forgot what sensory perception and response meant…". Nurse 2, "yes yes, it could also be tricky." Focus group 1

4.3 | Benefits compared to the Modified Norton Scale

The relevance of the risk factors included in PURPOSE T became obvious to the nurses when comparing the instrument with the Modified Norton Scale. The nurses felt that the result of PURPOSE T demonstrated a much more comprehensive assessment as it includes evidence-based risk factors that are more focussed and less vague compared to an assessment with the Modified Norton Scale, which was found to be more superficial. They further noticed that due to the inclusion of risk factors which were most predictive of pressure ulcer development, PURPOSE T would identify more patients at risk. There was a concern that the Modified Norton Scale overlooks those patients due to lack of risk factors such as sensory perception, moisture, diabetes, circulation, medical devices and pressure ulcers.

The nurses thought they could perform a risk assessment on a patient with the Modified Norton Scale where the score demonstrated that the patient was not at risk. However, their clinical judgement indicated that the patient was at risk, or, even worse, that the patients had a pressure ulcer. It was recognised that this would not happen if PURPOSE T was used, as it includes skin assessment. A limitation of the Modified Norton Scale is that it does not consider skin assessment. Nonetheless, a few of the nurses believed it was too easy with PURPOSE T to conduct a risk assessment on the patient as being at risk for pressure ulcer, for example if a patient had a scar from a previous pressure ulcer, the nurses did not agree that a scar from a previous pressure ulcer was a risk factor.

"With the Modified Norton Scale, I don't find the risk for pressure ulcers for some patients who eat and drink well, even though they have pressure ulcers. It feels weird to create a care plan for pressure ulcers when the Modified Norton Scale does not show risk of pressure ulcers. With PURPOSE T, the patient has a pressure ulcer." Focus group 5

The nurses expressed a preference for using PURPOSE T in the future if they were given the opportunity to choose. They viewed the Modified Norton Scale as being out of date and relying too much on an old tradition. Therefore, the nurses expressed a need for a new PURAI, considering PURPOSE T as being a safer option and a better alternative for the patient.

4.4 | Necessity of integration of PURPOSE T in the electronic health record and team collaboration

To facilitate implementation in clinical practice, the nurses reported that a necessity for using the instrument in their daily work would be to integrate it in the electronic health record since all patient information already is in the electronic heath record. It would reduce the risk of missing out on a risk factor during the risk assessment as there

are many boxes in the paper version to fill in. The nurses expressed that with an electronic version, it would probably be easier to follow the layout when you can see one risk factor at a time, instead of all at once as in the paper version.

> *"I absolutely think you should try PURPOSE-T. That's my opinion. I think it would be easier if it gets integrated into the electronic health record, just as the Modified Norton Scale is today." Individual interview 1*

The nurses reported another prerequisite for using the instrument, namely the necessity of team collaboration when performing a risk assessment on a patient, that is the registered nurse and the assistant nurse together. The risk assessment should be performed by the registered nurse, but if the assistant nurses could participate when turning the patients and inspecting the skin, it would be valuable in many ways, for example both would simultaneously assess the patient's risk status and nursing needs. Furthermore, it could contribute to increased learning and involvement in the nursing care, skin inspection and pressure ulcer categorisation for the assistant nurses. The nurses thought it was important for the assistant nurse to understand why and of what cause the patient was assessed at risk, not at risk or having a pressure ulcer. However, the registered nurse should continue to be the main responsible for the risk assessment. The nurses expressed that it is important that both they and the assistant nurses receive information and training in using the instrument. The assistant nurses are often closer to the patient than the nurses when it comes to basic care; therefore, participating in a PURPOSE T training before starting to work with the instrument would be valuable.

> *Nurse 1, "Going in together and doing a risk assessment; I think it might be better to be two people than to be on your own…" Nurse 2, "You can also discuss what you see…" Nurse 1, "Yes, but how does this look… Is it redness or is it a pressure ulcer category one?…" Nurse 2, "I think you can be involved as an assistant nurse as well…" .Focus group 2*

5 | DISCUSSION

The aim of this study was to evaluate the clinical usability of PURPOSE T among registered nurses in Sweden. The analysis identified four categories: an efficient risk assessment instrument performed at the bedside, deeper understanding and awareness of risk factors, benefits compared to the Modified Norton Scale and necessity of integration of PURPOSE T in the electronic health record and team collaboration. Our findings will be discussed in terms of *ease of use*, *format* and *useful clinical information*, that is criteria on usability that show the acceptability of an instrument to practitioners (Glad et al., 2012).

The *ease of use* can be described as the time it takes to interpret, administer, document, evaluate and follow-up an instrument within a relevant time aspect; otherwise, it can be a problem to find the time for risk assessing (Glad et al., 2012). One of the nurses´ descriptions of PURPOSE T was that it was easy to learn and understand. After receiving a short information and training, the nurses could risk assess the patients conducting all three steps in the instrument. Our results also indicate that PURPOSE T is time efficient. The time varied depending on which steps that was used, from a few seconds when using only the screening and up to ten minutes when using the full assessment on a patient that needed assistance with turning, which was considered an acceptable amount of time. This is in line with Coleman et al., (2018) who showed that PURPOSE T was quick and easy to use. PURPOSE T was perceived as an instrument where the nurses had to use their clinical judgement in their risk assessment. However, a few nurses found it difficult to use their clinical judgement as they felt insecure about the risk factors. To fully learn how to use and interpret a new assessment instrument takes time and effort (Glad, 2013). A few nurses had limited working experiences, which might have affected their clinical judgement. When PURPOSE T is implemented in clinical practice, it is important to follow-up if the nurses require more training in PURPOSE T, especially for those who are new to the profession. Integrating the instrument into the electronic health record could increase its accessibility to nurses and possibly the involvement of patients in the assessment at the bedside.

The *format* on an instrument should be appealing and acceptable for the practitioners to avoid methodological barriers (e.g. difficulties to choose the most suitable alternative in an assessment situation) (Glad et al., 2012). The nurses in the present study expressed very few obstacles (e.g. omitting to fill in a box) regarding the instrument's *format*. The instrument was logical to follow as well as to decide when to only use the screening and when to perform the full assessment. This is also consistent with Coleman et al., (2018), demonstrating that the screening is efficient in allowing the quick identification of those who do not require a full assessment. The nurses commented that when using the Modified Norton Scale, a full numeric assessment is necessary for all patients. The nurses appreciated using PURPOSE T because of the format with a screening and a full assessment when necessary; specifically, they preferred an instrument without a numeric score, where they could use their own clinical judgement. Coleman et al., (2018) also found that nurses liked the fact that PURPOSE T does not use a score like other assessment scales. International guidelines also recommend that a PURAI should be structured and include a screening step (European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, & Pan Pacific Pressure Injury Alliance, 2019). Interestingly, the meaning of different colours related to the risk factors in the instrument was not discussed at all. It could be that the colours of the risk factors guided the nurses in a natural pathway throughout the assessment process.

An assessment instrument should be able to support the healthcare staff with *useful clinical information* to facilitate the risk assessment (Glad et al., 2013). PURPOSE T gave the nurses relevant information that clarified if the patient was at risk, not at risk or

already had a pressure ulcer which is the primary goal for the instrument, according to Coleman et al., (2018). This is important information for the nurse, when establishing the care plan for pressure ulcer prevention (European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel, & Pan Pacific Pressure Injury Alliance, 2019). Another aspect was that PURPOSE T included skin assessment, encouraging the nurse to have a dialogue with the patient and the assistant nurse, who is often at the bedside, about different risk factors. With PURPOSE T, the nurse obtained a deeper understanding and awareness of what risk factors to focus on. This is also consistent with Coleman et al.,'s study (2018), where nurses were positive about the skin assessment and suggested that the skin assessment gave them information to be able to perform a more careful risk assessment.

5.1 | Strengths and limitations

When using a qualitative approach, aspects of trustworthiness need to be considered. To ensure the rigour in our methodology, several key components of qualitative research were assessed (Tong et al., 2007). One condition that might influence the credibility is that the first author, who participated in all focus groups, had trained all the nurses. She was responsible for the data collection and performed risk assessments in parallel with many of the nurses. Therefore, she was the moderator of the focus group interviews, with whom she had not conducted risk assessments with in parallel. However, it cannot be ruled out that the nurses expressed a particular type of response to please the first author. In the focus group interviews, both positive and negative aspects were discussed without hesitation; moreover, the activity and interaction in the groups were free and flowing, which supports the importance of interaction between the respondents for qualitative data (Krueger, 2015). The participants, who were recruited for the previous PURPOSE T study, also volunteered to participate in the present study; therefore, it is most likely that they were especially interested in pressure ulcers and in quality improvement. The participants were included from both a hospital (with different ward specialties) and nursing homes, with different professional experiences, which is a strength. The analysis revealed good homogeneity of the data and thus good quality. According to Kreuger (2015), saturation can be reached after three to four focus groups, and in this study, there were six focus groups. Furthermore, the first, second and last author conducted the analysis together until consensus were reached about the categories.

6 | CONCLUSION

The results highlight an overall positive perception of PURPOSE T´s clinical usability, as the instrument was regarded as an efficient tool that addresses the complex needs when risk assessing patients at risk for pressure ulcers. PURPOSE T contributes to a deeper understanding of risk factors and a greater awareness of pressure ulcer prevention. The instrument was recognised to be easy to use, and the format was acceptable and provided clinically useful information to the nurses. However, further studies are needed to evaluate the feasibility of PURPOSE T in clinical practice.

7 | RELEVANCE FOR CLINICAL PRACTICE

One of the nurses' main responsibilities is to alleviate suffering (Nasman, 2020). The use of the evidence-based PURPOSE T, with its clinical usability and structured approach, shows an increased knowledge of risk factors and awareness of pressure ulcer prevention among nurses, which is valuable for the patient. PURPOSE T encourages nurses to use their clinical judgement within the assessment process rather than separate from it. A prerequisite for implementation in clinical practice is the integration of the instrument into the electronic health record. The necessity for team collaboration when risk assessing and the amount of training and education for implementation should be considered. Therefore, the leadership at different levels needs to be involved. PURPOSE T has the potential to replace the PU-RAI´s used today.

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CONFLICT OF INTEREST

No conflict of interest has been declared by the authors.

AUTHOR CONTRIBUTION

All authors have agreed on the final version of the paper and have made substantial contributions to conception and design, acquisition of data, analysis and interpretation of data, drafting the article or revising it critically for important intellectual content.

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REFERENCES

Barbara, A., & Whiteford, G. (2005). Clinical utility of the Handicap Assessment and Resource Tool: An investigation of its use with the aged people in hospital. *Australian Occupational Therapy Journal*, *52*, 17–25. https://doi.org/10.1111/j.1440--1630.2005.00476.x

CODEX (2021). CODEX – rules and guidelines for research. Retrieved from http://www.codex.vr.se/en/forskninghumsam.shtml

Coleman, S., Gorecki, C., Nelson, E. A., & Closs, S. J. (2013). Patient risk factors for pressure ulcer development: Systematic review. *International Journal of Nursing Studies*, *50*, 974–1003. https://doi.org/10.1016/j.ijnurstu.2012.11.019

Coleman, S., Nelson, E. A., Keen, J., & Wilson, L. (2014). Developing a pressure ulcer risk factor minimum data set and risk assessment framework. *Journal of Advanced Nursing*, *70*, 2339–2352. https://doi.org/10.1111/jan.12444

Coleman, S., Nixon, J., Keen, J., Muir, D., Wilson, L., McGinnis, E., Stubbs, N., Dealey, C., & Nelson, E. A. (2016). Using cognitive pre-testing methods in the development of a new evidenced-based pressure ulcer risk assessment instrument. *BMC Medical Research Methodology*, *16*, 1–13. https://doi.org/10.1186/s12874-016-0257-5

Coleman, S., Smith, I. L., McGinnis, E., & Keen, J. (2018). Clinical evaluation of a new pressure ulcer risk assessment instrument, the Pressure Ulcer Risk Primary or Secondary Evaluation Tool (PURPOSE T). *Journal of Advanced Nursing*, *74*, 407–424. https://doi.org/10.1111/jan.13444

Demarré, L., Van Lancker, A., Van Hecke, A., & Verhaeghe, S. (2015). The cost of prevention and treatment of pressure ulcers: A systematic review. *International Journal of Nursing Studies*, *52*, 1754–1774. https://doi.org/10.1016/j.ijnurstu.2015.06.006

European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel and Pan Pacific Pressure Injury Alliance. (2019). Chapter 3, Population with specific pressure injury related needs, page 28-37, Chapter 4, Prevention of pressure injuries, page 38-72 & Chapter 24, Implementing best practice in clinical settings, page 322-339. In E. Haesler (Ed.), Prevention and treatment of pressure ulcers/injuries: clinical practice guideline. The International Guideline. Cambridge Media.

Glad, J. (2013). Assessment in evidence-based practice : Psychometric properties, clinical utility and professional co-operation from different perspectives of the home observation for measurement of the environment in Sweden. Retrived from Acta Universitatis Upsaliensis. http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-198281

Glad, J., Jergeby, U., Gustafsson, C., & Sonnander, K. (2012). Social work practitioners' experience of the clinical utility of the Home Observation for Measurement of the Environment (HOME) Inventory. *Child & Family Social Work*, *17*, 23–33. https://doi.org/10.1111/j.1365-2206.2011.00769.x

Gorecki, C., Nixon, J., Madill, A., Firth, J., & Brown, J. M. (2012). What influences the impact of pressure ulcers on health-related quality of life? A qualitative patient-focused exploration of contributory factors. *Journal of Tissue Viability*, *21*, 3–12. https://doi.org/10.1016/j.jtv.2011.11.001

Gunningberg, L., Sving, E., Hommel, A., & Ålenius, C. (2019). Tracking pressure injuries as adverse events: National use of the Global Trigger Tool over a 4-year period. *Journal of Evaluation in Clinical Practice*, *25*(1), 21–27. https://doi.org/10.1111/jep.12996

Hommel, A., Gunningberg, L., Idvall, E., & Bååth, C. (2017). Successful factors to prevent pressure ulcers – an interview study. *Journal of Clinical Nursing*, *26*, 182–189. https://doi.org/10.1111/jocn.13465

Hultin, L., Gunningberg, L., Coleman, S., & Karlsson, A. C. (2020). PURPOSE T in Swedish hospital wards and nursing homes: A psychometric evaluation of a new pressure ulcer risk assessment instrument. *Journal of Clinical Nursing*, *29*(21-22), 4066–4075. https://doi.org/10.1111/jocn.15433

Kallman, U., & Lindgren, M. (2014). Predictive validity of 4 risk assessment scales for prediction of pressure ulcer development in a hospital setting. *Advances in Skin & Wound Care*, *27*, 70–76. https://doi.org/10.1097/01.ASW.0000439059.72199.41

Krueger, R. A. (2015). *Focus groups: a practical guide for applied research*. Sage Publications Inc.

Mash, E. J., & Hunsley, J. (2005). Evidence-based assessment of child and adolescent disorders: Issues and challenges. *Journal of Clinical Child & Adolescent Psychology*, *34*, 362–379. https://doi.org/10.1207/s15374424jccp3403_1

Mokkink, L. B., Terwee, C. B., Knol, D. L., & Stratford, P. W. (2010). The COSMIN checklist for evaluating the methodological quality of studies on measurement properties: a clarification of its content. *British Medical Journal Medical Research Methodology*, *10*, 22. https://doi.org/10.1186/1471-2288-10-22

Nasman, Y. (2020). The theory of caritative caring: Katie Eriksson's theory of caritative caring presented from a human science point of view. *Nursing Philosophy*, *21*, 44–54. https://doi.org/10.1111/nup.12321

Patton, M. Q. (2015). *Qualitative research & evaluation methods*. SAGE Publications Inc.

Research Center for Drug Evaluation (2009). Patient-Reported Outcome Measures: Use in Medical Product Development to Support Labelling Claims. Retrieved from U.S. Food and Drug Administration website:

SALAR (Swedish Association of Local Authorities and Regions). (2019). Measurement of Pressure Ulcers in Health Care. Measurement of Pressure Ulcers in Health Care. Mätning av trycksår i slutenvården (in Swedish). Retrieved from www.skl.se/patientsakerhet

Stansby, G., Avital, L., Jones, K., & Marsden, G. (2014). Prevention and management of pressure ulcers in primary and secondary care: summary of NICE guidance. *British Medical Journal*, *348*, 2592. https://doi.org/10.1136/bmj.g2592

Steyerberg, W. E. (2019). *Clinical prediction models: A practical approach to development, validation and updating*. Springer.

The World Health Organization (2010). WHO - Process of translation and adaptation of instruments. Retrieved from https://www.who.int/substance_abuse/research_tools/translation/en/

The World Medical Association (2013). WMA - The World Medical Association-WMA Declaration of Helsinki – Ethical Principles for Medical Research Involving Human Subjects. Retrieved from https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/

Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, *19*, 349–357. https://doi.org/10.1093/intqhc/mzm042

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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