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The role of the teacher and learning in clinical practicum scales: A psychometric testing of the Finnish versions

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Abstract

Aim: To test the psychometric properties of the further developed Role of the Teacher (Tc2) and the new Learning in Clinical Practicum (LCP) scales in a sample of Finnish healthcare students.

Design: Psychometrical testing of the Tc2 and LCP scales.

Methods: A sample consisting of 1133 healthcare students completed the further developed Tc2 scale and the new LCP scale between January and June 2020. Statistical data analysis was performed using explorative factor analysis and Cronbach's alpha coefficient. The STROBE checklist for cross-sectional studies was applied in reporting.

Results: Both the further developed Tc2 and the new LCP scales were shown to be valid and reliable. Explorative factor analysis confirmed a two-factor solution for the Tc2 scale with a 76.3% explained variance and a one-factor solution for the LCP scale with a 58.0% explained variance. The scales' internal consistency reliabilities were high (0.9).

KEYWORDS
clinical practicum, healthcare student, learning, psychometric testing, scale, teacher

1 | INTRODUCTION

Clinical practicum, also known as clinical practice or clinical training, is regarded as a key factor in health professional education. Therefore, adequate and high-quality clinical education, which is typically implemented as mentoring or the supervision of healthcare students in clinical learning environments, is fundamental in terms of the provision of high-quality health services (Fernández-García et al., 2021; Mirbagher Ajorpaz et al., 2016). Thus, clinical education must be carried out in real-life clinical situations where students encounter healthcare service users, professionals and peer students in order to train for their professional role (Directive 2005/36/EC; Directive 2013/55/EU).

The quality of the clinical learning environment is known to be associated to students' positive experiences of clinical practicum (Fernández-García et al., 2021). However, previous research has shown that there are challenges, both organizational and pedagogical, related to clinical learning environments (Cant et al., 2021; Manninen, 2016). Thus, the quality of clinical learning environments should be evaluated and developed systematically (Hooven, 2014). Additionally, previous research evidence points out that mentorship programmes have a positive effect on clinical competence in nursing students (Mirbagher Ajorpaz et al., 2016) and on recruitment and retention intentions within healthcare (Cant et al., 2021). However, students from other healthcare fields are underrepresented in the previous studies focusing on the clinical learning environment (Cant et al., 2021), albeit being

part of the professional work community. Therefore, there is a need to develop methods (incl. instruments) suitable for all healthcare students to evaluate the effectiveness of the clinical practicum in terms of learning outcomes and professional development.

2 | BACKGROUND

Student supervision in clinical practicum is implemented in a cooperation triad (Melander & Roberts, 1994) with a diverse array of interactions between the student, mentors from clinical practice and the teacher from an educational institution. The teacher provides the pedagogical and theoretical expertise, while the mentor provides the practical expertise to this triad (Saarikoski et al., 2013). The cooperation triad contributes significantly to the student's learning outcomes (Hooven, 2014), which are seen as critical in meeting the competence requirements of the healthcare workforce (Missen et al., 2016), thus ensuring the delivery of high-quality and safe care (Aiken et al., 2017). With clinical training covering almost half of the studies of healthcare students, it is important that the clinical learning environment supports student learning in the best way possible.

Mentors are seen as essential professional role models for students by supporting the professional development of students at the bedside (Jokelainen et al., 2011; Manninen et al., 2015). However, the teacher bears the main responsibility for the student supervision (Directive 2005/36/EC), and the cooperation triad has been the traditional part of the teacher's clinical role. Still, the role of the teacher has now changed with educational reforms from vocational education to higher educational institutions (Collins & Hewer, 2014; Strandell-Laine et al., 2022). After the turn of the millennium, teachers' clinical visits to practicum placements have decreased in Finland and throughout Europe (Saarikoski et al., 2013), mainly because of economic preconditions rather than pedagogical solutions. Moreover, attempts to attain United Nations (2022) sustainable development goals, such as environmental sustainability, have also contributed to less frequent teacher visits to the clinical setting, and remote supervision methods between the student and teacher are now preferred instead.

The COVID-19 pandemic has accelerated the adoption of new ways of health professional education, whereby the cooperation triad and face-to-face meetings, for example, have rapidly shifted to virtual contacts (International Council of Nurses, 2021). Recent studies report that students greatly value the cooperation with their supervising teacher (e.g. Strandell-Laine et al., 2019; Suikkala et al., 2021), although it is often unattainable (Pimmer et al., 2018). Thus, new solutions to implement the clinical role of the teacher have been developed. Nowadays, the clinical role of nurse teachers is increasingly implemented remotely with different technological solutions, for example, videoconferencing, virtual learning environments and mobile applications (O'Connor & Andrews, 2015; Raman, 2015; Strandell-Laine et al., 2015).

Learning in clinical practicum can be challenging due to organizational and pedagogical issues. The most important components in student learning are mutual relationships between students and patients, and a sense of belonging (Manninen, 2016). Moreover, an integrative review by Phillips et al. (2017) pointed out that student perceptions of the clinical environment play a key role in attaining student learning outcomes. Also, it is known that students' meaningful learning experiences during clinical practicum are important and are related to a commitment to work in the profession (Kaihlanen et al., 2021). Dedicated education units and clinical education wards, for example, are specially modified to promote student learning. However, more knowledge is needed on how student learning can be enhanced in the practicum settings (Ekebergh et al., 2018; Manninen, 2016). Furthermore, there is a lack of knowledge regarding the clinical learning process in relation to actual and desirable learning outcomes (Stoffels et al., 2021), and how those outcomes can be measured (Lee et al., 2019; Strandell-Laine et al., 2018).

During clinical practicum, healthcare students are expected to learn metacognitive skills, such as learning to take responsibility for their own learning (Hwang et al., 2012) and to reflect on their actions and consequences during this clinical practice (Manninen et al., 2015; Zhu et al., 2022). Moreover, they are expected to learn about patient care, which manifests as learning decision-making in patient/client care and learning to take care of the patient/client comprehensively (Lee et al., 2019). Additionally, learning to collaborate is one of the indented learning outcomes of clinical practicum, which can be seen as how students learn to work as part of the multi-professional work community (Lee et al., 2019; Zhu et al., 2022) and with other students (Jacobsen et al., 2022; Zhu et al., 2022). In addition, students are expected to gain a professional competence for entering the healthcare profession (Kaihlanen et al., 2021; Zhu et al., 2022).

The clinical role of the teacher is described as complex and constantly changing in line with educational reforms (Strandell-Laine et al., 2018; Collins & Hewer, 2014). Nowadays, this role emphasises teacher's support in advancing students' individual learning processes and professional development increasingly via technical solutions and thus, without being on-site in the clinical placement (Strandell-Laine et al., 2022). Due to these changes, the original Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T) scale (Saarikoski et al., 2008) has been further developed to address better the clinical role of the teacher (Strandell-Laine, 2019). Moreover, to our knowledge, no instrument has been developed for measuring indented learning outcomes, specifically in terms of clinical practicum from the perspective of healthcare students, and previous studies have focused mainly on nursing students (Cant et al., 2021).

3 | THE STUDY

3.1 | Aims

This study aimed to test the psychometric properties of the further developed Role of the Teacher (Tc2) scale (Strandell-Laine, 2019) and the new Learning in Clinical Practicum (LCP) scale among Finnish

healthcare students. More accurately, the study aimed to test (i) the construct validity and (ii) the internal consistency of the Tc2 and LCP scales when used in a hospital context.

4 | METHODS

4.1 | Design, setting and sampling

In this study, the further developed Role of the Teacher (Tc2) and the new Learning in Clinical Practicum (LCP) scales were tested in terms of their psychometrical properties. The cross-sectional survey data were used for psychometrical testing of the scales. The data were collected electronically from healthcare students in one university hospital district between January and June 2020. An anonymous link including an invitation letter and a self-administered questionnaire was digitally delivered to the university hospital district website as part of national benchmarking data aimed at improving the quality of the clinical learning environment for improved learning outcomes. The students' supervisors informed the students about answering the questionnaire at the end of their clinical practicum period.

In 2020, a total of 4681 healthcare students were invited to take part in the study. Although the largest group invited were nursing students, the invitation was also sent, for example, to students of biomedical laboratory science, radiography, occupational therapy, physiotherapy and practical nursing, who all had their clinical practicum placements in the university hospital district. Of these, 1133 healthcare students responded to the questionnaire during the first half of the study year. Most of the respondents were 20–24 years old (39.4%) and in their third-year studies (40.3%). Most respondents were qualifying as registered nurses (70.0%). The length of the clinical practicum period in most cases was 4–5 weeks (46.8%). Three-quarters of respondents had a mid-term feedback session (74.9%), and almost all had a summative evaluation session at the end of the practicum (93.3%).

4.2 | The instruments

The further developed Tc2 scale for the original Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T) scale (Saarikoski et al., 2008) was used to assess the clinical role of the teacher. The original CLES+T scale (Saarikoski et al., 2008) is widely used internationally to measure the quality of the clinical learning environment, and it has over 20 validated language versions. Although the CLES+T scale is proven to be valid (Mansutti et al., 2017; Saarikoski et al., 2008) with a wide content coverage (Hooven, 2014), the T scale measuring the clinical role of the teacher has shown lower mean values than other sub-dimensions of the CLES+T scale (Saarikoski et al., 2008). One reason for this may be the fact that this sub-dimension has items with a presumption of the teacher's clinical visits enabling a cooperation triad (Melander & Roberts, 1994) with diverse interactions between the student, mentors and the teacher. The Tc2 scale has three sub-scales of which the first two are original (Saarikoski et al., 2008) and the last one is new (Strandell-Laine, 2019): "Teacher enabling integration of theory and practice" (3 items), "Cooperation between clinical placement and teacher" (3 items) and "Teachers' pedagogical cooperation with students" (5 items). The reasoning for the development of a new sub-scale was to emphasize and define the importance of the teacher's cooperation with the student regardless of the mode of interaction (Strandell-Laine, 2019). The new sub-scale (Strandell-Laine, 2019) was developed from existing international literature and an expert panel of CLES researchers ($n=2$), nursing education researchers ($n=2$), teachers ($n=2$) and students ($n=2$) (Strandell-Laine et al., 2017). The Tc2 scale has altogether 11 items with a 10-point Likert scale (1 = totally disagree; 10 = totally agree + option does not apply to me). The scale addresses different aspects of the student–teacher cooperation in clinical practicum, such as ease of cooperation, teacher response time, relieving stress, promoting learning and individual supervision (Strandell-Laine et al., 2018).

The new Learning in Clinical Practicum (LCP) scale describes students' self-assessed learning outcomes after completing their clinical practicum. The LCP scale was developed in 2019 in the national benchmarking network, which is focused on developing student supervision within the healthcare context in Finland. Therefore, the LCP scale was not previously validated. The development of the LCP scale was based on a literature review and an expert panel who reviewed, evaluated and revised the items. The LCP has altogether eight items with a 10-point Likert scale (1 = totally disagree; 10 = totally agree + option does not apply to me). The scale addresses different aspects of indented learning outcomes in clinical practicum, such as learning metacognitive skills (two items), learning about patient/client care (three items), learning to collaborate (two items) and gaining professional competence to enter the healthcare profession (one item).

The self-administered questionnaire also included sociodemographic background factors ($n=2$): age and current phase of studies. Likewise, educational background factors ($n=2$) were included: degree programme and length of clinical practicum. Lastly, background factors related to the clinical practicum period ($n=2$) were included: evaluation sessions, both mid-term and summative.

4.3 | Data analysis

The data were analysed statistically using IBM SPSS Statistics (Version 25). Descriptive statistics were calculated to describe the sample. The construct validity of both scales was assessed separately using exploratory factor analysis (EFA). For both scales, the Kaiser–Meyer–Olkin (KMO) index of sampling indicating adequacy (>0.9) and a significant Bartlett test of sphericity ($p<0.0001$) were used to confirm that the data were suitable for factor analysis (Williams et al., 2010). In EFA, principal axis factoring as the extraction method and Promax with Kaiser normalization for the

rotation method were applied. A minimum sample size for the psychometric testing was estimated by requiring at least five participants per item to test the construct validity of both scales (DeVon et al., 2007). In addition, the internal consistency of both scales was measured separately using Cronbach's alpha values, and the acceptable level of reliability was set ≥0.7 (Tavakol & Dennick, 2011). Corrected item-to-total scores were expected to exceed ≥0.30 (DeVon et al., 2007).

4.4 | Ethical considerations

The study was carried out in accordance with the relevant ethical guidelines and regulations (All European Academies, 2017; Finnish Advisory Board on Research Integrity, 2012; Regulation (EU) 2016/679). The permission to use the scales was received from the copyright holders of the scales. The study was approved in accordance with the ethical standards of the university hospital district involved in the study. The respondents were informed about the voluntary participation and anonymity of their responses in a cover letter included in the web-based questionnaire.

5 | RESULTS

5.1 | Construct validity of the scales

The construct validity of the Tc2 scale was examined using Exploratory Factor Analysis (EFA). The data were suitable for the analysis (KMO = 0.914) and Bartlett's test $\chi 2 = 6998.8$, df = 55 ($p < 0.0001$). The items were loaded on two factors with a combined explanation rate of 76.3%. In EFA, the communalities of the items varied at an acceptable level from 0.677 to 0.857 (Table 1).

In the LCP scale, the Kaiser–Meyer–Olkin test (KMO = 0.893) and Bartlett's test of Sphericity $\chi 2 = 3530.0$, df = 28 ($p < 0.0001$) demonstrated the adequacy of the data for EFA. One component solution accounted for 58% of the variance of the LCP scale, and the communalities of the items ranged from 0.156 to 0.703. The two lowest communalities were those items describing student learning by collaborating with peer students in clinical practicum placement and learning by reflecting clinical learning experiences (Table 2).

5.2 | Internal consistency reliability

The internal consistency reliability examined using the Cronbach's alpha coefficient showed α = 0.95 for the Tc2 scale and ranged for the two sub-scales from α = 0.92 and α = 0.93. For the Tc2 scale, the item-to-total score correlations ranged from 0.678 to 0.865, thus exceeding the value set at ≥0.30 (Table 1). Cronbach's alpha coefficients for the LCP scale was α = 0.85. For the LCP scale, the item-to-total score correlations ranged from 0.390 to 0.759, thus exceeding the value set at ≥0.30 (Table 2).

6 | DISCUSSION

This study was carried out to validate the further developed Tc2 scale and the new LCP scale among 1113 healthcare students in a university hospital context in Finland. The psychometric testing indicated that the Tc2 and LCP scales are valid and reliable and can be used for healthcare students' self-assessments of the teacher's role and learning outcomes after completing the clinical practicum in terms of acceptable construct validity (Williams et al., 2010). Moreover, the internal consistency reliabilities using Cronbach's alpha coefficients were high (0.9), thus exceeding the minimum value of 0.7 for new scales and internal consistency reliability (Tavakol & Dennick, 2011).

The EFA confirmed the two-factor solution for the Tc2 scale, explaining 76.3% of the variance (eigenvalue >1). The three sub-scales of the Tc2 were split into two factors. The two sub-scales "Teacher enabling integration of theory and practice" and "Cooperation between clinical placement and teacher" (Saarikoski et al., 2008) were combined and named as "Cooperation triad" (factor 1), while the third sub-scale "Teacher's pedagogical cooperation with students" (Strandell-Laine, 2019) remained unchanged (factor 2). The Tc2 scale demonstrated good internal consistency with Cronbach's alfa 0.95, and the factors (0.92 and 0.93). The deletion of any item in the Tc2 scale would not have increased the Cronbach's alpha values. The results showed that the further developed Tc2 scale was a valid and reliable tool for evaluating the teacher's role during the clinical practicum.

The T scale of the CLES+T scale (Saarikoski et al., 2008) was originally modified by (Strandell-Laine, 2019) to explore the versatile clinical role of nurse teachers in supporting students' clinical learning that is increasingly being implemented remotely with different technological solutions (O'Connor & Andrews, 2015; Raman, 2015; Strandell-Laine et al., 2015). For that purpose, five new items focusing on the students' self-assessments of the teacher's pedagogical cooperation with the student were developed: individual supervision, stress relieving, learning promotion, teacher's response time and ease of cooperation regardless of the cooperation method. The identified two-factor model of the Tc2 scale may be used to obtain a broader understanding of the cooperation triad between the student, mentor and teacher and the actual implementation of the role of the teacher. "Cooperation triad" (factor 1) and "Teacher's pedagogical cooperation with students" (factor 2) are crucial in order to promote the effective learning and professional development of students during the clinical practicum (Hooven, 2014; Strandell-Laine et al., 2022).

By using the Tc2 scale, it may be possible to reduce the knowledge gap on the actual implementation of the clinical role of the teacher and to identify both the strengths and challenges of this role and through it develop the clinical role of the teacher. Moreover, the use of the scale may provide reliable knowledge to develop the cooperation between practicum placements and educational institutions in order to facilitate a high-quality clinical practicum and the professional and competence development of individual students. However, further validations in different practicum settings and

TABLE 1 Exploratory factor analysis and Cronbach's alpha coefficients of the Tc2 scale ($n = 1133$).

Scale, sub-scales and items	Communalities	Factor 1	Factor 2	Cronbach alfa	Cronbach alfa if item deleted
The Role of the Teacher (Tc2) scale (11 items)				0.95	
Cooperation triad				0.92	
1. Integrating theoretical knowledge and clinical practice[a]	0.772	**0.875**	0.560		0.91
2. Clarifying learning goals[a]	0.762	**0.872**	0.632		0.90
3. Reducing the theory–practice gap[a]	0.819	**0.904**	0.602		0.90
4. Teacher as a team member[a]	0.690	**0.828**	0.627		0.90
5. Sharing the expertise with the clinical team[a]	0.744	**0.858**	0.666		0.90
6. Supporting student learning with the clinical team[a]	0.677	**0.770**	0.748		0.90
Teacher's pedagogical cooperation with students				0.93	
7. Ease of cooperation[b]	0.810	0.604	**0.899**		0.92
8. Teacher response time[b]	0.733	0.515	**0.849**		0.93
9. Promoting learning[b]	0.857	0.733	**0.917**		0.90
10. Relieving stress[b]	0.764	0.687	**0.867**		0.91
11. Individual supervision[b]	0.769	0.659	**0.875**		0.91
Eigenvalue		7.323	1.074		
% of explanation		66.575	9.759		
Cumulative % of explanation		66.575	76.334		

Note: Extraction Method: principal axis factoring; Rotation method: Promax with Kaiser normalization. The bold values show the highest factor loadings. Factor structure based on eigenvalues >1. Communality cut-off value <0.20.

[a]The full content of the items has been published elsewhere (Saarikoski et al., 2008). The copyright of the CLES+T scale resides with Elsevier Science Ltd.

[b]The full content of the items has been published elsewhere (Strandell-Laine, 2019).

cultures are required to support the evidence elicited from the two-factor solution of the Tc2 scale.

The EFA confirmed the one-factor solution for the LCP scale, explaining 58.2% of the variance (eigenvalue >1). Furthermore, the LCP scale demonstrated a good internal consistency with Cronbach's alfa 0.85. However, an item related to cooperation with other students during the clinical practicum had a low factor loading (0.462), and an item analysis showed that it should be removed from the scale to enhance the internal consistency of the scale up to 0.90. The results exhibited that the LCP scale was a valid and reliable tool for evaluating the results of learning during the clinical practicum. Clinical practicum aims to prepare healthcare students for their future role as healthcare professionals; however, there is a lack of discussion of the clinical learning process and learning outcomes in nursing education literature (Stoffels et al., 2021). Thus, there is a need for synthetizing knowledge regarding the desirable learning outcomes of clinical practicum and to further develop the content of the LCP scale to match up those outcomes. Hereafter, further validations would also be needed.

Since there is a lack of instruments measuring indented learning outcomes specifically in terms of clinical practicum from the perspective of healthcare students, the LCP scale can provide very useful information not only for students and nurse teachers but also for nurse mentors. Assessing students' perceptions of the quality of clinical learning environments is important (Meretoja et al., 2018), but the focus should also be on what clinical practicum produces to the competence and professional development of healthcare students. Therefore, the use of the LCP scale ought to be promoted in clinical learning environments.

By using a valid and reliable tool to measure student learning during clinical practicum, it would be possible to promote their ability to reflect on own learning strategies and also to identify trends in learning outcomes through longitudinal studies. However, the LCP is considered a self-evaluation instrument. Thus, it is not designed to directly measure the learning outcomes in clinical practicum, since it has been stated that self-reporting instruments may run up against prejudices and social desirability biases (Cadorin et al., 2016).

6.1 | Limitations

The convenience sample consisted of healthcare students from a diverse array of clinical placements in one hospital district region in Finland. Therefore, the results are restricted to the clinical environments involved and thus the scales need to be psychometrically tested in other clinical placement contexts, such as in primary care. Also, a wider international validation of the scales could provide valuable information about the scales. The data were collected from healthcare students, of which nursing students were correspondingly the largest professional health professional group

TABLE 2 Exploratory factor analysis and Cronbach's alpha coefficients of the LCP scale ($n = 1133$).

Scale and items	Communalities	Factor 1	Cronbach alfa	Cronbach alfa if item deleted
Learning in Clinical Practicum (LCP) scale (8 items)			0.85	
1. Taking responsibility for one's own learning	0.513	**0.716**		0.84
2. Taking responsibility for patient/client care	0.691	**0.831**		0.82
3. Decision-making in patient/client care	0.720	**0.848**		0.82
4. Taking care of the patient/client comprehensively	0.721	**0.849**		0.81
5. Working actively as a part of the multi-professional work community	0.731	**0.855**		0.81
6. Cooperating with other students	0.214	**0.462**		0.90
7. Reflecting experiences during clinical practice	0.448	**0.670**		0.83
8. Readiness for work after clinical practice	0.619	**0.787**		0.82
Eigenvalue		4.656		
% of explanation		58.205		
Cumulative % of explanation		58.205		

Note: Extraction Method: principal axis factoring; Rotation method: Promax with Kaiser normalization. The bold values show the highest factor loadings. Factor structure based on eigenvalues >1. Communality cut-off value <0.20.

(OECD, 2021). As the data from other healthcare students were limited, more validation testing of the scales with more representative samples of healthcare students is needed. Lastly, the scales were not completed by all the students having their clinical practicum in this study. Despite this limitation, the sample size was large enough to be used in the psychometrical testing of the scales (DeVon et al., 2007).

Variation in students' learning objectives, supervision models and the way the cooperation triad has been organized should be considered when interpreting these results. Virtual contacts on the collaboration triad, instead of face-to-face contacts (Saarikoski et al., 2013; Strandell-Laine et al., 2019), and a decreasing number of clinical placements in hospital settings (Henriksen et al., 2020; WHO, World Health Organization, 2020) necessitate the testing of the scales in other contexts within primary healthcare. One limitation could be that there were variations between the clinical placements involved in the supervision models, varying from individual supervision provided by a named supervisor to group supervision in a dedicated education unit model. However, the students' clinical practicum procedures have been standardized, for example, by means of learning goals, reflection, feedback and evaluation discussions at the university hospital district in the study. Furthermore, the items of the scales were mostly created in the 2020s. The preconditions of healthcare education are changing progressively, and new clinical placement contexts, for example, an increase in outpatient and digital health (OECD, 2021), might require other items in order to measure the changing field of the clinical learning environment in the future.

Moreover, one limitation in terms of the Tc2 and LCP scales is related to the perspective of measurement. It must be taken into account that these scales measure the teacher's role and learning outcomes during clinical practicum only from the students' perspective. Thus, a bias involved with self-evaluations should be considered, for example, when using these scales to evaluate the quality of clinical learning environments. In future, there is a need to develop 360 evaluations (incl. also mentors' and teachers' evaluations) of these phenomena to gain more reliable knowledge that can be used when promoting high quality within nursing education.

7 | CONCLUSION

The validated Tc2 and LCP scales have implications when used to measure healthcare students' self-assessed perceptions of the teacher's role and learning in clinical practicum in a Finnish university hospital context with specialized care. Further validation of the scales in a diverse array of clinical learning environments, especially among other healthcare students than nursing students, would provide evidence-based information about the teacher's role and student learning in clinical practicum and evidence for their further development. The scales, when used systematically, could provide information for the evaluation and development of healthcare education, especially in terms of facilitating collaboration between educational and healthcare organizations, regenerating the supervising role of the teacher and enhancing the best possible clinical learning experiences for healthcare students. In addition to the professional development of teachers, the scales provide valuable information for audit and quality improvement purposes pertaining to clinical placements and educational institutions.

AUTHOR CONTRIBUTIONS

Camilla Strandell-Laine, Toni Haapa and Arja Suikkala were responsible for the conception and design of the study. Toni Haapa had overall responsibility for the statistical analyses carried out. Camilla Strandell-Laine, Toni Haapa and Arja Suikkala were responsible for

drafting the manuscript and interpretation of data. Leena Timonen was responsible for clinical expertise, acquisition of data and transmission of the data for analysis. All authors made substantial contributions to acquisition of data, drafted the manuscript, or revised it critically for important intellectual content. All authors read and approved the final manuscript. All those entitled to authorship are listed as authors.

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CONFLICT OF INTEREST STATEMENT

No conflict of interest has been declared by authors.

DATA AVAILABILITY STATEMENT

Author elects to not share data

ETHICS STATEMENT

The study was approved in accordance with the ethical standards of the university hospital district involved in the study (approval number § 256/2020-3). The respondents were informed in cover letter included in the web-based questionnaire about their voluntary participation and the anonymity of their responses.

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