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Nurse engagement in a Finnish tertiary-level university hospital: a descriptive cross-sectional survey

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ABSTRACT

The purpose of this study was to describe the state of nurse engagement by using the results of one Finnish tertiary-level university hospital. Quantitative descriptive cross-sectional survey design was applied. The data were collected using a Nurse Engagement Survey (NES). The sample included 2,464 nurses. The data were statistically analysed.

Of the nurses, 15% were engaged, 42% content, 30% ambivalent, and 13% disengaged. Assistant nurse managers were the most engaged, and least engaged were registered nurses and those who had over one but less than 15 years of work experience. Responders were most satisfied with the drivers of *nurse staff teamwork* and *passion for nursing*, and least satisfied with the drivers of *recognition* and *autonomy and input*.

The results of this study can be used to understand the phenomenon of nurse engagement and to identify development needs related to it, where nursing directors and managers playing a key role.

Keywords: Survey and Questionnaires, Work engagement, Personnel Management

TIIVISTELMÄ

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Tämän kuvailevan poikkileikkaustutkimuksen tarkoituksena oli kuvata hoitohenkilöstön sitoutuneisuutta hyödyntäen yhden suomalaisen yliopistollisen sairaalan tuloksia. Aineisto kerättiin 2464 hoitajalta Nurse Engagement Surveylla (NES) ja analysoitiin tilastollisin menetelmin. Hoitohenkilökunnasta 15% oli sitoutuneita, 42% tyytyväisiä, 30% epävarmoja ja 13% sitoutumattomia. Kaikkein sitoutunein ammattiryhmä oli apulaisosastonhoitajat. Sairaanhoitajat sekä ne, jotka olivat työskennelleet organisaatiossa enemmän kuin vuoden, mutta vähemmän kuin 15 vuotta, olivat kaikkein sitoutumattomimpia. Vastaajat olivat kaikkein tyytyväisimpiä *hoitajien väliseen yhteistyöhön* ja *intohimoon hoitotyötä kohtaan*. *Palkitsemiseen* sekä *autonomiaan ja osallistumiseen potilaan hoitoon* oltiin kaikkein tyytymättömimpiä.

Tutkimuksen tuloksia voidaan hyödyntää hoitohenkilöstön sitoutuneisuusilmiön ymmärtämisessä sekä siihen liittyvien kehittämiskohteiden tunnistamisessa, missä hoitotyön johtajat ja esimiehet ovat avainasemassa.

Avainsanat: Kyselytutkimus, Työn imu, Johtaminen

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What is already known about the research topic?

- The shortage of nurses is a constant and growing issue worldwide.
- Nurse engagement could be one of the strategies used to alleviate the shortage of nurses.
- Nurse engagement has also been found to have a positive impact on patients, nurses and employers.

What new information does the article bring?

- This study shows that only minority of nurses are fully engaged in their organization.
- When it comes to improving nurses' engagement, it is important to pay particular attention to registered nurses and those who have only worked for a few years in the organization.
- Adequate recognition of nurses and giving them enough autonomy and input can also help to improve nurses' engagement.

What is the significance of the research for nursing, nursing education and management?

- Healthcare organizations should include nurse engagement in their decision-making so that nurses get excited about their organizations, remain in their service and recommend them.
- Isolating the key issues, customizing the interventions, and facilitating follow-ups can be considered as a guideline to engage nurses.
- At the grassroots level, managers have an important role to play in fostering the engagement of nurses.

Introduction

Nurse engagement defined in simplicity is how committed and satisfied nurses are to their organizations and their profession (Dempsey & Reilly 2016). Nurse engagement has a wide range of benefits. Engaged nurses are more satisfied with their jobs and careers (Giallonardo et al. 2010, Laschinger 2012, Sawatzky & Enns 2012, Kutney-Lee et al. 2016). They are more likely to remain with their employer organization (Walker & Cambell 2013). Additionally, engaged nurses' intent to leave their jobs decreases (Laschinger 2012, Sawatzky & Enns 2012).

Nurse engagement affects the patients and the employer organization (Bargagliotti 2012, García-Sierra et al. 2016, Keyko et al. 2016, Dempsey & Assi 2018) and is crucial for clinical quality, and patients' outcomes and experience (Dempsey & Reilly 2016, Dempsey & Assi 2108). Nurse engagement is also related to organizational outcomes on clinical, operational, cultural, and behavioral levels (Dempsey & Assi 2018). For example, the financial profitability of organizations can grow because of the engaged nurses (Bargagliotti 2012, Dempsey & Assi 2018).

Background

The shortage of nurses is a major issue globally and it will worsen in the future (WHO 2016, ICN 2021). There will be a shortage of 18 million health workers by 2030 (WHO 2020). The ICN (2021) predicts a shortfall of 13 million nurses in future. In turn, the WHO (2016) has estimated that 32.3 million nurses and midwives will be needed globally by 2030. That is 11.6 million nurses and midwives more than were needed in 2013. This issue also affects Finland. There could be a shortage of about 20,000 health and social care employees by 2025 (Ensio et al. 2019).

There are many reasons for the shortage problem. Nurses are increasingly less willing to stay in their profession and work (Leineweber et al. 2016, Halter et al. 2017). For example, approximately 18% of Finnish

registered nurses (RNs) intend to leave their profession, and 50% intend to leave their workplace (Leineweber et al. 2016). Many leave the nursing profession and workplace due to stress and dissatisfaction (Halter et al. 2017). The number of nurses will also be reduced by retirement (Sulander et al. 2016, WHO 2020). It seems that within 20 years, more than half of Finnish nurses will be retiring (Sohlman 2020). Due to the aging population alone, the need for health and social care employees will increase by approximately 30% from 2016 to 2025 in Finland (Sulander et al. 2016). Additionally, the COVID-19 has increased nurses' intentions to leave the nursing profession (ICN 2021). Nurse engagement is an important element to consider when seeking out solutions to the shortage problem.

In 2009 Simpson argued that there is no theoretical or practical established understanding of the concept of nurse engagement (Simpson 2009). Today, the situation seems to be still the same. In the nursing discipline, *work engagement* (WE) and *employee engagement* (EE) are concepts which are much used in connection with the engagement. These concepts are often used as synonyms (Schaufeli & Bakker 2010) although they have their own definitions (Simpson 2009). EE embraces the employees' engagement to their work and the employer organization (Saks 2006, Schaufeli & Bakker 2010), while WE is a narrower and more specific concept and does not consider the employees' engagement to the organization (Schaufeli & Bakker 2010). However, these concepts and related tools are used vaguely. In this study, nurse engagement contains elements of both, WE and EE.

Most of the nursing studies use the concept WE and alongside it Utrecht Work Engagement Scale (UWES). It is argued that the WE has been adapted and generally accepted to the nursing discipline without a critical review of its appropriateness to measure the engagement of nurses (Keyko 2014). The two different versions of the UWES measure the following three sub-elements of WE: vigour, dedication, and absorption (Schaufeli & Bakker 2004, Schaufeli et al. 2006). In addition to the items mentioned in the UWES, the tool of EE should also include items related to the desire to participate in the work role and the success of the organization (Albrecht 2010). There is not yet one globally accepted tool to measure EE (Moss et al. 2017). The Nursing Executive Center (NEC) uses the concept EE in its material (NEC 2007, 2014).

The Nurse Engagement Survey (NES) which was used in this study, was developed by the NEC (2007) and the Global Centre for Nursing Executives, GCNE (2014), which belong to Healthcare Advisory Board Company. The survey was developed specifically to measure the engagement of nurses (NEC 2007). The NEC's definition for nurse engagement is: "an engaged nurse should be inspired by his or her hospital, willing to invest discretionary effort, likely to recommend the employer, and planning to remain with the hospital for the foreseeable future" (NEC 2007, p 15).

The phenomenon in which a minority of employees are fully engaged in their organization is called the engagement gap (Towers Perrin 2008, Rivera et al. 2011). Among other things, the rapidly transforming health care environment (e.g. rapidly changing protocols and procedures, information overload, budget trade-offs, and future uncertainty) exacerbates nurse engagement (NEC 2014, George & Massey 2020). According to Lepistö et al. (2018), the engagement among Finnish nurses is high when measured by UWES.

Purpose

The purpose of this study was to describe the state of nurse engagement by using the results of one Finnish tertiary-level univer-

sity hospital. The objectives were to determine the nurses' engagement levels according to the nurses' background variables, and the nurses' satisfaction with the drivers of engagement according to the nursing occupation groups. This study was conducted to identify key issues and development needs related to nurse engagement.

Methodology

Design and sample

This study used a quantitative descriptive cross-sectional survey design. The sample consists of all NES-answers that were given by clinical nurses (n=2464) who worked in 11 different Finnish university hospital's departments in 2015 and 2016. The nurses consisted of RNs (RNs, paramedics, public health nurses, midwives, and radiographers, n=2032) with a bachelor's degree in nursing from a university of applied sciences (or previous diploma in nursing), LPNs (Licenced Practical Nurses or equivalent, n=255), ANMs, (Assistant Nurse Managers, n=134) and others (e.g. physiotherapists and occupational therapists, n=38).

Instrument

To underline the key drivers of engagement, the NEC (2007) isolated 150 attributes of nurse engagement from the systematically produced information. The information was gathered from a wide range of nurses, nurse managers, HR professionals, academic literature, and available surveys. The NEC's researchers narrowed the 150 attributes to 60 manageable independent survey variables (NEC 2007). With the 60 variables, the NEC conducted a confirmatory factor analysis and found nine different discrete drivers of engagement: *autonomy and input*, *nurse staff teamwork*, *non-nurse teamwork*, *professional growth*, *manager actions*, *recognition*, *work environment*, *passion for nursing*, and in addition *salary and benefits* (Rivera et al. 2011). The GCNE has produced an international version of the NES, which does not include the *salary and benefits* driver. In turn, it includes a *personal engagement level* (GCNE 2014). All the drivers of engagement have 4–9 statements, i.e. recognized independent survey variables (NEC 2007). In this study, the international version of the NES with 48 statements was answered on a six-point Likert scale (*strongly agree – strongly disagree*, without an *I cannot say* option). Currently, the copyright of NES is held by Press Ganey.

Data collection

At the time of data collection, the study organization was a member of the GCNE; thus, had the permission to use the NES. The survey was conducted electronically. The survey link was sent to the Chief Nursing Officers (CNOs) of the hospital departments. They forwarded it via nurse directors to nurse managers, and further to the nurses. All the nurses (N=7840) had the opportunity to respond to the survey.

Ethics

Initially, the data were collected for hospital's development purposes. The permission to use the data for research was applied for and obtained retrospectively in February 2017 from the Hospital District of Helsinki and Uusimaa (HUS/138/2017). According to national legislation, this type of research did not require approval from an official research ethics committee (TENK 2009).

However, the survey introduction indicated that a response would be interpreted as consent to use the responses also for research purposes. Also, in the survey introduction it was emphasized that the participation was voluntary and anonymous. No information of the responders (e.g. name, IP address, email address) was collected.

Data analysis

The data were analysed using IBM SPSS Statistics version 23. The NEC's *Engagement Level Index Score* was utilized when determining the engagement levels. A respondent was considered to be "engaged" if she/he answered at least *agree* to all and *strongly agree* at least to two out of these following statements:

- *I would recommend this organization to my friends as a great place to work*,
- *This organization inspires me to perform my best*,
- *I am likely to be working for this organization three years from now* or
- *I am willing to put in a great deal of effort in order to help this organization succeed*.

In the scores:

- an *engaged* respondent should have 5.50 or more,
- a *content* respondent should have a score from 4.50 to 5.49,
- an *ambivalent* respondent should have a score from 3.50 to 4.49, and
- a *disengaged* respondent should have a score of 3.49 or less (NEC 2007, p 15 and 18).

From the Likert scale, the respondents were awarded six points for *strongly agree*, five points for *agree*, four points for *tend to agree*, three points for *tend to disagree*, two points for *disagree,* and one point from *strongly disagree*. Cross-tabulation and a Chi-square test according to the background variables were used to analyse whether the differences in the engagement levels were statistically significant.

To determine the nurses' satisfaction with the drivers of engagement, sum variables were formed from the eight drivers of engagement. The Cronbach's alpha score by statements for the whole scale was 0.96 and for the sum variables it was 0.69–0.85. A Kruskal-Wallis test was used to determine the statistical significance.

Results

The response rate was 31 percent. In all, 2,464 nurses responded to the NES of a total of 7,840 nurses who were contacted. The nurses' demographic background is presented in Table 1.

Nurses' engagement levels

More than half, 57 percent of the nurses indicated they were engaged or content. The engagement levels are illustrated in Figure 1.

The nurses had statistically significant differences in their engagement levels according to the nursing occupatio n (Pearson Chi-square test p<.001), education (Pearson Chi-square test p=.003), type of work unit (Pearson Chi-square test p=.001), and length of employment (Pearson Chi-square test p<.001). There were no statistically significant differences in engagement levels when it came to the type of primary work shifts (Pearson Chi-square test p=.432). The engagement levels according to the nurses' background variables are presented in Table 2.

Nurses' satisfaction with the drivers of engagement

The nurses were most satisfied with the drivers of *nurse staff teamwork* and *passion for nursing* and least satisfied with *recognition* and *autonomy and input*. Figure 2 illustrates the nurses' satisfaction more specifically with the drivers of engagement.

There were statistically significant differences in the median values between the nursing occupation groups for each driver of engagement. Table 3 shows the different nursing occupation groups' satisfaction with the drivers of engagement.

Table 1. Nurses' demographic background

		n	%
Respondents		2464	31.0
Year	2015	1494	60.6
(n=2464)	2016	970	39.4
Nursing occupation	Licensed practical nurses	255	10.4
(n=2459)	Registered nurses	2032	82.6
	Other	38	1.5
	Assistant nurse managers	134	5.5
Education	Vocational	308	12.6
(n=2439)	Bachelor's degree or previous diploma	1934	79.3
	Master's level (University of applied sciences)	134	5.5
	Master's degree or higher (University)	63	2.6
Type of work unit	Inpatient ward	983	41.0
(n=2392)	Outpatient ward	638	26.7
	Emergency ward	112	4.7
	Operating departments and examination units	375	15.7
	Intensive care and high dependency care units	284	11.9
Length of employment	Less than a year	220	9.0
(n=2459)	1–3 years	408	16.6
	4–6 years	372	15.1
	7–15 years	672	27.3
	over 15 years	787	32.0
Shift	Morning	1898	79.4
(n=2390)	Evening	281	11.8
	Night	211	8.8

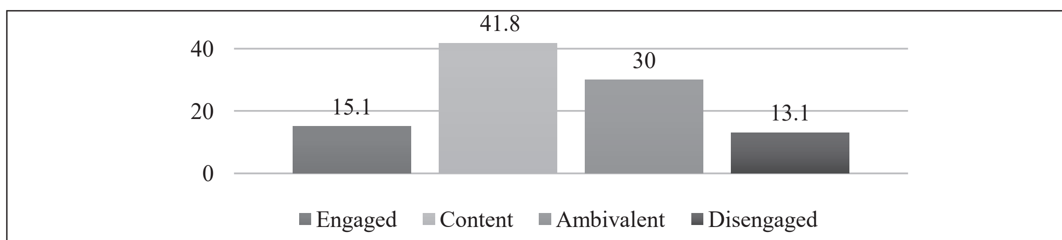

Figure 1. Nurses' engagement levels (%)

Discussion

Theoretical discussion

The proportion of engaged nurses in this study was lower compared to previous American studies using the NES (Rivera et al. 2011, Kuykendall et al. 2014). However, the results are quite consistent with the Italian study by Petean et al. (2020). In their study, a minority (8%) of Italian nurses were engaged, the majority were content (40%) or ambivalent (39%), and a small group (13%) were disengaged. Lepistö and others (2018) researched the WE of healthcare em-

Table 2. Nurses' engagement levels (%) according to the nurses' background variables

		Engaged	Content	Engaged + Content	Ambivalent	Disengaged	Ambivalent + Disengaged
Total nurse respondents		15.1	41.8	56.9	30.0	13.1	43.1
Nursing occupation	Licensed practical nurses	22.7	41.2	63.9	21.6	14.5	36.1
	Registered nurses	13.6	41.3	54.9	31.6	13.5	45.1
	Assistant nurse managers	25.4	50.7	76.1	18.7	5.2	23.9
	Other	5.3	52.6	57.9	31.6	10.5	42.1
Education	Vocational	23.1	41.1	64.2	23.1	12.7	35.8
	Bachelor's degree or previous diploma	13.9	41.6	55.5	31.2	13.3	44.5
	Master's level (University of applied sciences)	18.7	41.0	59.7	27.6	12.7	40.3
	Master's degree or higher (University)	9.5	49.3	58.8	31.7	9.5	41.2
Type of work unit	Inpatient	15.9	45.6	61.5	27.3	11.2	38.5
	Outpatient	16.1	42.5	58.6	28.2	13.2	41.4
	Emergency	18.9	36.1	55	33.3	11.7	45.0
	Operating departments and examination units	13.1	35.6	48.7	34.2	17.1	51.3
	Intensive care and high dependency	12.3	37.0	49.3	35.2	15.5	50.7
Length of employment	less than a year	26.4	44.5	70.9	21.8	7.3	29.1
	1–3 years	13.7	42.5	56.2	32.6	11.2	43.8
	4–6 years	11.6	37.9	49.5	31.7	18.8	50.5
	7–15 years	12.8	41.4	54.2	31.1	14.7	45.8
	over 15 years	16.3	42.9	59.2	29.0	11.8	40.8

ployees in Finnish university hospitals. The data were collected from all Finnish university hospitals in 2015 and of the respondents 72% were nurses. It is interesting, that in Lepistö et al.'s (2018) study, the WE among nurses was high measured by the UWES.

In our study, RNs were less engaged than LPNs. Similar results have been reported previously (NEC 2014, Strömgren et al. 2016). In turn, ANMs were the most engaged group. In Finland, ANMs do partly administrative tasks. There are no direct previous results about this groups' engagement levels, but the result is in line with previous studies showing that administrative and non-nursing staff are more engaged than nurses who do direct nursing care (Dempsey & Reilly 2016, White et al. 2017, Lepistö et al. 2018). The nursing occupation group of others had only 38 respondents and this group had the least engaged nurses. This group has not usually been studied in the same group as nurses.

In terms of education, engagement levels were in line with LPNs' and RNs' education. The engagement levels were almost

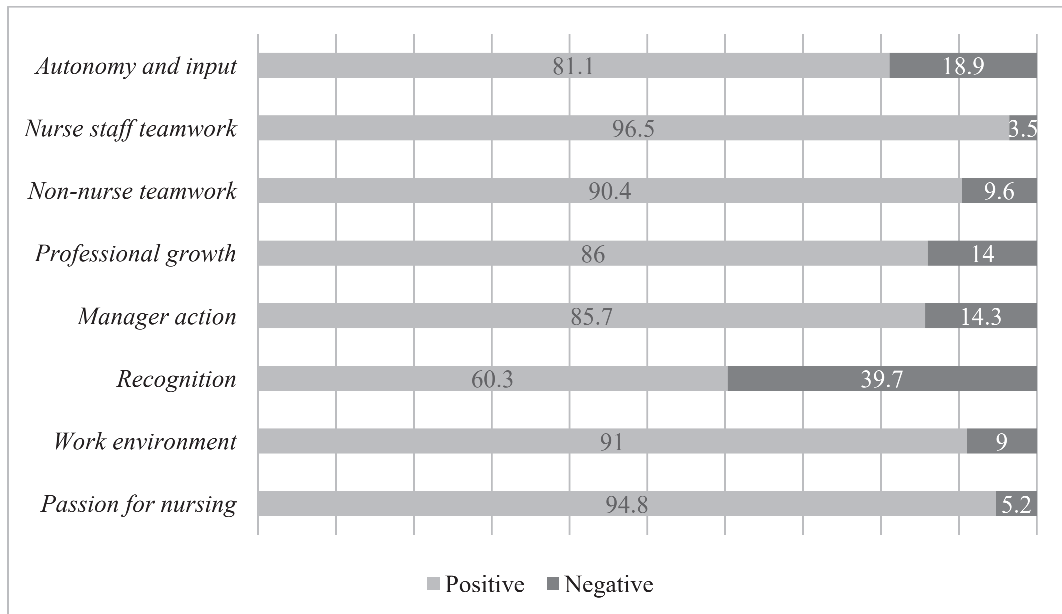

Figure 2. Nurses' satisfaction (%) with the drivers of engagement (Positive = mean value of the sum variable 3.5 or more, Negative = mean value of the sum variable < 3.5, the neutral point of the scale)

the same for LPNs and vocational degree education, as well RNs and bachelor (or previous diploma) level education. It is interesting that the ANMs with high engagement levels did not stand out in terms of education. Master's level degree nurses were less engaged than ANMs. In the NEC's (2007) analysis, master's level degree nurses were the most engaged group according to education. The differing results in this study may be due to the lack of a job description corresponding to education of ANMs.

According to the type of work unit, the nurses who were working in inpatient units were the most content. This may be explained because most (41%) of the respondents were working in units like this. The emergency units had the most engaged nurses. Nurses from operating departments, examination units, intensive care, and high dependency units were the most disengaged. The nurses working in outpatient clinics were midway in comparison of these different groups. No fully comparable previous study was found about nurses' engagement working in these types of work units.

When it comes to the length of employment, the most engaged were the nurses who had been working in the organization for less than a year or more than 15 years. Other studies also provide evidence that nurses who have worked in the nursing sector for a long time are the most engaged (Rivera et al. 2011, Wonder 2012, Bamford et al. 2013, Poulsen et al. 2016, George & Massey 2020). In our findings, a drop in engagement occurs after a year of employment. More than half of those who worked for 4–6 years were ambivalent or disengaged. Additionally, Lepistö et al.'s (2018) study showed that those who had worked for less than 4 years and over 15 years were the most engaged. Dempsey and Reilly (2016) presented results where nurse engagement begins to decline steadily after six months of employment. A steady rise begins again at the point where nurses have worked for five years. The results concerning engagement according to the type of primary work shifts were not statistically significant in our study.

Table 3. Nurses' satisfaction with the drivers of engagement according to the nursing occupation groups (medians and [interquartile ranges])

	Autonomy and input	*Nurse staff teamwork*	*Non-nurse teamwork*	*Professional growth*	*Manager action*	*Recognition*	*Work environment*	*Passion for nursing*
Licensed practical nurses	4.14 [1.00]	4.83 [0.83]	4.33 [1.00]	4.42 [1.17]	4.75 [1.50]	3.75 [1.50]	4.67 [0.89]	5.00 [1.00]
Registered nurses	4.14 [1.00]	4.83 [0.83]	4.67 [1.00]	4.33 [1.00]	4.75 [1.25]	3.50 [1.50]	4.56 [0.89]	4.80 [0.80]
Other	4.43 [0.88]	4.82 [1.83]	4.67 [1.17]	4.33 [1.04]	4.58 [1.31]	4.00 [1.38]	4.67 [0.67]	4.80 [0.60]
Assistant nurse managers	4.50 [0.71]	5.00 [0.67]	4.67 [0.75]	4.67 [0.88]	5.00 [1.06]	4.25 [1.25]	4.89 [0.89]	5.00 [0.60]
p-value	<.001***	.014**	<.001***	<.001***	<.001***	<.001***	<.001***	<.001***

(**p≤.01., ***p≤.001)

The nurses were least satisfied with the *recognition* driver of engagement, as was the finding in the Italian study (Petean et al. 2020). The *recognition* driver contains statements about receiving positive recognition and regular feedback, organizational management respecting the contribution of nursing, and CNOs being visible advocates for nursing (GCNE 2014). An earlier study identified three major barriers to nurse engagement, one of which was a lack of reward and recognition (George & Massey 2020).

Recognition has been found to be one significant predictor of WE (Bamford et al. 2013). Kuykendall et al. (2014) reported that engaged nurses assessed aspects related to *recognition* significantly better than the disengaged nurses. In addition, positive perceptions of reward are related to higher engagement levels (Adriaenssens et al. 2015) and support from the organization is a factor that affects engagement (Brunetto et al. 2013, Trinchero et al. 2013, Brunetto et al. 2014, Parr et al. 2021). Enhancing rewards and recognition together with strengthening leader visibility and improving two-way communication seem to increase nurse engagement (George & Massey 2020).

Another driver of engagement with clear challenges was *autonomy and input*. This was a similar finding in the Italian study (Petean et al. 2020). The driver includes statements such as, nurses taking an active role in decision-making, having enough input and appropriate level of independence, and feeling comfortable raising concerns regarding patient care. The driver also includes issues such as getting information about the organization's plans and directions, and that the organization considers suggestions from nurses in its development activities. Autonomy is an antecedent of WE (Bargagliotti 2012). There are signs that autonomy (Innstrand 2016), control (Bamford et al. 2013, Adriaenssens et al. 2015), and discretionary power (Trinchero et al. 2013) have a positive relationship with nurse engagement. The authority to make decisions independently is highlighted (Bamford et al. 2013, Trinchero et al. 2013).

ANMs were the most engaged and they were the most satisfied with the drivers of engagement. It might be that the ANMs' satisfaction with the drivers of *recognition* and *autonomy and input* may explain the higher engagement levels. This explanation is also in line with the result of the NEC (2014) analysis. The nurses in our study were most satisfied with the drivers of *nurse staff teamwork* and *passion for nursing.* Similar results were found in the Italian study (Petean et al. 2020). However, in both studies, the nurses had an engagement gap. The role of these drivers of engagement may not be incredibly significant.

Implications

It may be that one solution to the shortage of nurses is to strengthen the engagement of nurses. However, the relationship between engagement and turnover is not always clear. EE seems for example to mediate the relationships between respect and turnover, and mission fulfilment and turnover (Collini et al. 2015). In turn, in Brunetto et al.'s (2013) study, the relationship between EE and turnover could not be confirmed in Australian hospitals. In turn, the impact of EE on turnover was confirmed in U.S. hospitals. In Kutney-Lee et al.'s (2016) study engaged nurses reported significantly fewer intentions to leave their employer within one year than disengaged nurses.

However, there are also many other benefits of engaged employees. Thus, investing in the engagement of nurses is always worthwhile. The nurses themselves benefit from their engagement, which refers to personal, performance, care, and other professional outcomes (Bargagliotti 2012, Keyko et al. 2016, Dempsey & Assi 2018). For example, engaged nurses are more satisfied with their jobs and they report less burnout than disengaged nurses (Kutney-Lee et al. 2016). Engaged employees are productive, so the organization achieves meaningful business outcomes (Crim & Seijts 2006, Bargagliotti 2012, Dempsey & Assi 2018). Generally, engaged employees care about their organizations' future, they think that they can make a difference and do things better in their organization, and they are willing to do so (Robinson et al. 2004, Crim & Seijts 2006). It is also essential to remember that engagement is two-way. The organizations need to work so they can promote the engagement of their employees, and in turn, the employees need to offer their engagement and its benefits to the employer (Robinson et al. 2004).

The benefits of nurse engagement for the patients are meaningful. Patients' experience, quality, and safety of care seem to enhance due to nurse engagement (Dempsey & Assi 2018). For example, the quality of care and patient safety were reported to be poor less frequently by nurses who were engaged compared to nurses who were disengaged (Kutney-Lee et al. 2016). Keyko (2014) argues that engagement is also essential for ethical nursing practice.

The NEC (2007) offers concrete steps that can be taken to promote nurse engagement. These are isolating the key issues, customizing the interventions, and facilitating follow-ups. In our study, engagement levels of RNs and the *recognition* and *autonomy and input* drivers were the key challenges. We also highlight that special attention should be paid to the engagement of nurses who have worked for the organization only for a few years. These findings contain issues that can be influenced especially by the organization, the CNO, nursing directors, and nurse managers. Previous studies suggest that perceived organizational support predicts engagement (Brunetto et al. 2013, Trinchero et al. 2013, Brunetto et al. 2014, Parr et al. 2021), and directors and managers are in a crucial role when fostering the engagement of nurses (Rivera et al. 2011, Bamford et al. 2013, Kuykendall et al. 2014, García-Sierra et al. 2016, Dempsey & Assi 2018,

George & Massey 2020). The WHO (2020) has set three important goals for the future to meet the challenges of nursing (e.g. nursing shortage). One of these goals is to strengthen nursing leadership. There are also signs, that the Magnet® Hospital Framework promotes an environment of engagement (the Advisory Board Company 2011, Moss et al. 2017, Stone et al. 2019). In the hospital where the study was conducted, the Magnet® Hospital Framework has begun to guide nursing.

Limitations

The limitations of this study are related mostly to the design. This was a descriptive cross-sectional study with self-reported data. Thus, there might be some response bias. Participation in this study was voluntary, and the response rate was only 31%. It is not known how engaged the 69% who did not respond to the survey are. The study was made in one university hospital in Finland. Generalization can only be made for similar settings. The numbers of RNs were over-represented; thus, the sample may not be representative. However, the ratio of the number of different nursing occupation groups is realistic. Because of the cross-sectional design, it is not entirely possible to draw causal conclusions.

Recommendations for future research

Future research is needed to clarify the concept of nurse engagement, as recognized also in previous studies (Simpson 2009, Keyko 2014, Moss et al. 2017). In particular, the differences between the concepts of WE and EE are recommended to be explored. Longitudinal, multicentred study could provide important information about the phenomenon of nurse engagement and factors related to it. The consortium for the national benchmarking of nursing-sensitive outcomes has collected nurse engagement data with a modified NES since 2018 (Junttila et al. 2020). This data has extensive research possibilities besides its importance for benchmarking. Additionally, the Magnet® Hospital model broadly guides nursing development and management in Finland. Its connection to nurse engagement could be elucidated. The data were collected before the COVID-19 pandemic. The effects of the COVID-19 on nurse engagement cannot be overlooked and should be investigated.

It would also be necessary to find out why RNs are the least engaged nursing occupation group in this and previous studies (NEC 2014, Strömgren et al. 2016). In addition, the reasons why those who have worked for the organization for more than a year, but less than 15 years are the most disengaged should be examined. Additionally, ANMs, who were the most engaged group were most satisfied with the drivers of *recognition,* and *autonomy and input.* It would be important to find out the causality between nurse engagement and these two drivers of engagement. Lastly, some qualitative information would complement these aspects.

Conclusion

The findings of this study revealed a nurse engagement gap in the study organization. Of all nurses, only about 15% were fully engaged. The positive thing is, that the nurses were more often engaged than disengaged. In addition, *recognition,* and *autonomy and input* are drivers that need the most improvements. Nurses should be given positive recognition and regular feedback by the directors and managers. The contribution of nursing must be respected and the CNO must be a prominent advocate of nursing. Nurses must be actively involved in decision-making. Additionally, they should be informed of the organization's

plans and guidelines. Our results also reflect the need to invest in the engagement of RNs and those who have worked in the organization for only a few years. In general, other organizations can use the results of this study to understand the phenomenon of nurse engagement and to identify development needs related to it.

ROLE OF AUTHORS

Design of the study: SM, SS, KJ, Collection of the data: KJ, Analysis of the data: SM, KJ, Drafting the manuscript: SM, Revising manuscript critically: SM, SS, KJ

REFERENCES

Adriaenssens J., De Gucht V. & Maes S. (2015) Association of goal orientation with work engagement and burnout in emergency nurses. *Journal of Occupational Health* **57**(2), 151–160.

The Advisory Board Company. (2011) *Does Magnet Journey Lead to Higher Engagement? Analysis of Employee Engagement Performance by Magnet Designation. Research Brief.* Washington, DC: Advisory Board Company.

Albrecht S. L. (2010) Employee engagement: 10 key questions for research and practise. In S.L. Albrecht (Ed.). *Handbook of Employee Engagement: Perspectives, Issues, Research and Practice.* Cheltenham: Edward Elgar Publishing, page 9.

Bamford M., Wong C. A. & Laschinger H. (2013) The influence of authentic leadership and areas of worklife on work engagement of registered nurses. *Journal of Nursing Management* **21**(3), 529–540.

Bargagliotti L. A. (2012) Work engagement in nursing: a concept analysis. *Journal of Advanced Nursing* **68**(6), 1414–1428.

Brunetto Y., Shacklock K., Teo S. & Farr-Wharton R. (2014) The impact of management on the engagement and well-being of high emotional labour employees. *The International Journal of Human Resource Management* **25**(17), 2345–2363.

Brunetto Y., Xerri M., Shriberg A., Farr-Wharton R., Shacklock K., Newman S. & Dienger J. (2013) The impact of workplace relationship on engagement, well-being, commitment and turnover for nurses in Australia and the USA. *Journal of Advanced Nursing* **69**(12), 2786–2799.

Collini S. A., Guidroz A. M. & Perez L. M. (2015) Turnover in health care: the mediating effects of employee engagement. *Journal of Nursing Management* **23**(2), 169–178.

Crim D. & Seijts G. (2006) What engages employees the most or, the ten C's of employee engagement. *Ivey Business Journal,* Mar/Apr 2006, 1–5.

Dempsey C. & Assi M. J. (2018) The Impact of Nurse Engagement on Quality, Safety, and the Experience of Care: What Nurse Leaders Should Know. *Nursing Administration Quarterly* **42**(3), 278–283.

Dempsey C. & Reilly B. A. (2016) Nurse Engagement: What are the Contributing Factors for Success? *The Online Journal of Issues in Nursing* **21**(1), 2.

Ensio A., Lammintakainen J., Härkönen M. & Kinnunen J. (2019) Finland. In A.M. Rafferty, R. Busse, B. Zander-Jentsch, W. Sermeus & L. Bruyneel (Eds.). *Strengthening health systems through nursing: Evidence from 14 European countries.* Copenhagen: European Observatory on Health Systems and Policies, page 34. https://apps.who.int/iris/bitstream/handle/10665/326183/9789289051743-eng.pdf (1.6.2021)

García-Sierra R., Fernández-Castro J. & Martínez-Zaragoza F. (2016) Work engagement in nursing: an integrative review of the literature. *Journal of Nursing Management* **24**(2), E101–E111.

GCNE (Global Centre for Nursing Executives). (2014) *International Nurse Engagement Questions. Key drivers of Nurse Engagement. The Advisory Board International Global Centre for Nursing Executives.* Washington, DC: Advisory Board Company.

George V. & Massey L. (2020) Proactive Strategy to Improve Staff Engagement. *Nurse Leader* **18**(6), 532–535.

Giallonardo L. M., Wong C. A. & Iwasiw C. L. (2010) Authentic leadership of preceptors: predictor of new graduate nurses' work engagement and job satisfaction. *Journal of Nursing Management* **18**(8), 993–1003.

Halter M., Boiko O., Pelone F., Beighton C., Harris R., Gale J., Gourlay S. & Drennan V. (2017) The determinants and consequences of adult nursing staff turnover: a systematic review of systematic reviews. *BMC Health Services Research* **17**(1), 824.

ICN. (2021) *International Council of Nurses Policy Brief. The Global Nursing shortage and Nurse Retention.* https://www.icn.ch/sites/default/files/inline-files/ICN%20Policy%20Brief_Nurse%20Shortage%20and%20Retention_0.pdf (4.6.2021)

Innstrand S. T. (2016) Occupational differences in work engagement: A longitudinal study among eight occupational groups in Norway. *Scandinavian Journal of Psychology* **57**(4), 338–349.

Junttila K., Meriläinen M., Peltokoski J., Tervo-Heikkinen T., Mattila E., Lehtikunnas T., Heikkilä A., Koivunen M., Salmela S., Laitila M. & Ritmala-Castrén M. (2020) Hoitotyön kansallinen vertaiskehittäminen (HoiVerKe). *Tutkiva Hoitotyö* **18**(3), 34–36.

Keyko K. (2014) Work engagement in nursing practice: A relational ethics perspective. *Nursing Ethics* **21**(8), 879–889.

Keyko K., Cummings G. G., Yonge O. & Wong C. A. (2016) Work engagement in professional nursing practice: A systematic review. *International Journal of Nursing Studies* **61**, 142–164.

Kutney-Lee A., Germack H., Hatfield L., Kelly S., Maguire P., Dierkes A., Del Guidice M. & Aiken L. H. (2016) Nurse Engagement in Shared Governance and Patient and Nurse Outcomes. *The Journal of Nursing Administration* **46**(11), 605–612.

Kuykendall J. W., Marshburn D. M., Poston C. W. & Mears A. (2014) Experienced Nurses' Level of Engagement Priority Areas for Nurse Executives. *The Journal of Nursing Administration* **44**(10), 546–551.

Laschinger H. K. S. (2012) Job and career satisfaction and turnover intentions of newly graduated nurses. *Journal of Nursing Management* **20**(4), 472–482.

Leineweber C., Chungkham H. S., Lindqvist R., Westerlund H., Runesdotter S., Smeds Alenius L. & Tishelman C. (2016) Nurses' practice environment and satisfaction with schedule flexibility is related to intention to leave due to dissatisfaction: A multi-country, multilevel study. *International Journal of Nursing Studies* **58**, 47–58.

Lepistö S., Alanen S., Aalto P., Järvinen P., Leino K., Mattila E. & Kaunonen M. (2018) Healthcare professionals' work engagement in Finnish university hospitals. *Scandinavian Journal of Caring Sciences* **32**(2), 979–986.

Moss S., Mitchell M. & Casey V. (2017) Creating a Culture of Success. Using the Magnet Recognition Program® as a Framework to Engage Nurses in Australian Healthcare Facility. *The Journal of Nursing Administration* **47**(2), 116–122.

NEC (Nursing Executive Center). (2007) *Engaging the Nurse Workforce: Best Practices for Promoting Exceptional Staff Performance*. Washington, DC: Advisory Board Company.

NEC (Nursing Executive Center). (2014) *The National Prescription for Nurse Engagement. Best Practices for Enfranchising Frontline Staff in Organizational Transformation*. Washington, DC: Advisory Board Company.

Parr J. M., Teo S. & Koziol-McLain J. (2021) A quest for quality care: Exploration of a model of leadership relationships, work engagement, and patient outcomes. *Journal of Advanced Nursing* **77**(1), 207–220.

Petean M., Picogna M. & Palese A. (2020) Nurses' engagement levels in an Italian public healthcare trust: findings from a cross-sectional study. *Giornale Italiano di Medicina del Lavoro ed Ergonomia* **42**(1), 35–43.

Poulsen M. G., Khan A., Poulsen E. E., Khan S. R. & Poulsen A. A. (2016) Work engagement in cancer care: The power of co-worker and supervisor support. *European Journal of Oncology Nursing* **21**, 134–138.

Rivera R. R., Fitzpatrick J. J. & Boyle S. M. (2011) Closing the RN Engagement Gap Which Drivers of Engagement Matter? *The Journal of Nursing Administration* **41**(6), 265–272.

Robinson D., Perryman S. & Hayday S. (2004) *The Drivers of Employee Engagement*. https://www.employment-studies.co.uk/system/files/resources/files/408.pdf (1.6.2021)

Saks A. M. (2006) Antecedents and consequences of employee engagement. *Journal of Managerial Psychology* **21**(7), 600–619.

Sawatzky J. V. & Enns C. L. (2012) Exploring the key predictors of retention in emergency nurses. *Journal of Nursing Management* **20**(5), 696–707.

Schaufeli W. B. & Bakker A. B. (2004) *Utrecht Work Engagement Scale Preliminary Manual*. https://www.wilmarschaufeli.nl/publications/Schaufeli/Test%20Manuals/Test_manual_UWES_English.pdf (1.6.2021)

Schaufeli W. B., Bakker A. B. & Salanova M. (2006) The Measurement of Work Engagement with a Short Questionnaire A Cross-National Study. *Educational and Psychological Measurement* **66**(4), 701–716.

Schaufeli W. B. & Bakker A. B. (2010) Defining and measuring work engagement: Bringing clarity to the concept. In W. B. Bakker & M. P. Leiter (Eds.). *Work engagement: A Handbook of Essential Theory and Research*. Hove: Psychology press, page 10.

Simpson M. R. (2009) Engagement at work: A review of the literature. *International Journal of Nursing Studies* **46**(7), 1012–1024.

Sohlman P. (2020*) Kunta-alan ja valtion eläköitymisennuste 2020-2039*. https://www.keva.fi/globalassets/2-tiedostot/tama-on-keva--tiedostot/kunta-alan-ja-valtion-elakoitymisennuste-2020-2039.pdf (17.6.2021)

Stone L., Arneil M., Coventry L., Casey V., Moss S., Cavadino A., Laing B. & McCarthy A. L. (2019) Benchmarking nurse outcomes in Australian Magnet® hospitals: cross-sectional survey. *BMC Nursing* **3**(18):62

Strömgren M., Eriksson A., Bergman D. & Dellve L. (2016) Social capital among healthcare professionals: A prospective study of its importance for job satisfaction, work engagement and engagement in clinical improvements. *International Journal of Nursing Studies* **53**, 116–125.

Sulander J., Sinervo T., Elovainio M., Heponiemi T., Helkama K. & Aalto A-M. (2016) Does Organizational Justice Modify the Association Between Job Involvement and Retirement Intentions of Nurses in Finland? *Research in Nursing and Health* **39**(5), 364–374.

TENK (Tutkimuseettinen neuvottelukunta). (2009) *Humanistisen, yhteiskuntatieteellisen ja käyttäytymistieteellisen tutkimuksen eettiset periaatteet ja ehdotus eettisen ennakkoarvioinnin järjestämiseksi*. https://www.tenk.fi/sites/tenk.fi/files/eettisetperiaatteet.pdf (1.6.2021)

Towers Perrin. (2008) *Closing the Engagement Gap: A Road Map for Driving Superior Business Performance*. https://engageforsuccess.org/wp-content/uploads/2015/10/Closing-the-engagement-gap-TowersPerrin.pdf (24.5.2021)

Trinchero E., Brunetto Y. & Borgonovi E. (2013) Examining the antecedents of engaged nurses in Italy: Perceived Organisational Support (POS); satisfaction with training and development; discretionary power. *Journal of Nursing Management* **21**(6), 805–816.

Walker A. & Campbell K. (2013) Work readiness of graduate nurses and the impact on the job satisfaction, work engagement and intention to remain. *Nurse Education Today* **33**(12), 1490–1495.

White M., Butterworth T. & Wells J. S. G. (2017) Healthcare Quality Improvement and 'work engagement'; concluding results from a national, longitudinal, cross-sectional study of the 'Productive Ward-Releasing Time to Care' Programme. *BMC Health Services Research* **17**(1), 510.

WHO. (2016) *Global strategy on human resources for health: Workforce 2030*. https://www.who.int/hrh/resources/global_strategy_workforce2030_14_print.pdf?ua=1 (25.5.2021)

WHO. (2020) *State of the world's nursing 2020: investing in education, jobs and leadership*. https://www.who.int/publications/i/item/9789240003279 (4.6.2021)

Wonder A. H. (2012) Engagement in RNs Working in Magnet®-Designated Hospitals. Exploring the Significance of Work Experience. *The Journal of Nursing Administration* **42**(12), 575–579.

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