

## Daily nursing activities in relation to patient well-being: a serial cross-sectional study

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**Abstract.** Regardless of the health status, patient well-being is important. Well-being is a broad concept ranging from traditional biomedical views to a holistic view of health that includes physical, psychological, social and religious factors. When a person is ill or has a chronic disease, well-being is affected and is thus linked to any health-related life experience. Ensuring and enhancing well-being is one of the main goals of nursing.

This quantitative cross-sectional study aimed to evaluate the relationship between the time spent on physical, psychological, social and religious nursing activities, and the achievement of goals set by nurses in their daily work in terms of patient well-being in Estonia.

The study was conducted in three stages: in 1999 (study I), 2009 (study II) and 2021 (study III). A total of 904 nurses participated in these three consecutive studies: study I,  $n = 490$ ; study II,  $n = 204$ ; and study III,  $n = 210$ . The inclusion criteria were a nursing profession and a work experience of at least one year.

In conclusion, the proportion of somatic, mental, social and religious problems among patients increased. Inclusive, universal and comprehensive nursing activities were essential in achieving patient well-being. Nurses considered the achievement of goals characteristic of physical nursing as the most important aspect of their daily work, followed by mental and social nursing activities. The contribution of religious nursing activities was noticeably limited. Whether patient well-being could be achieved by directing nursing activities towards physical nursing remained unclear. The study was a systematic and comprehensive overview of the development of nursing care in Estonia and aimed to contribute to improving patient well-being by planning nursing activities.

**Keywords:** nurse, patient, well-being; physical, mental, social and religious nursing.

### INTRODUCTION

In nursing, the patient is treated as a whole, taking into account their life situation and individuality. Maintaining and promoting patients' health, including their physical and mental integrities, is essential, and cultural factors and a safe environment play an important role (Rautava-Nurmi et al. 2016). Ensuring patient well-being is critical for achieving better health outcomes. Higher self-rated patient well-being has been found to be associated with fewer hospitalisations, emergency room visits and lesser medi-

cation use (Harrison et al. 2012; Kreitzer 2012). Consequently, the definition of and means to ensure patient well-being must be investigated (Egerod et al. 2020).

Patient well-being is closely related to health. According to the World Health Organization, health is defined as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (Institute of Medicine 2012; WHO 1948). The concept of well-being extends from a biomedical view of the absence of disease to a holistic view that includes physical, mental and social determinants of health (Halvorsen et al. 2022; La Placa et al. 2013; Monsen et al. 2015). When a person is ill or has a chronic illness,

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well-being is affected and is thus linked to any health-related life experience. A person who has survived some disease may not regain the pre-disease health and well-being, consequently reducing the quality of life and negatively impacting health and well-being (Jonasdottir et al. 2018; Kiefer 2010; Umberger and Thomas 2019). The impact of patient well-being on health and the impact of health on well-being are closely related, which is why nursing activities should focus on ensuring both well-being and good health.

The International Council of Nurses (ICN) has defined nursing as encompassing autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well, and in all settings (ICN). Health care workers have to cope with increasingly complex care situations with limited resources. Optimising the use of time and skills of nurses is critical to the future of the health care system. Paying increasingly more attention to and studying how nurses allocate their time provide opportunities for improvement (Antinaho et al. 2015; Michel et al. 2021). Guiding and supporting people through major transitions, including chronic illness, is a key component of care coordination (Luchsinger et al. 2019).

One possible understanding of patient well-being in terms of integrity is the fundamentals of care (FOC) framework. This framework addresses the inter-relationship between three main aspects of care: physical, psychological and social dimensions (Halvorsen et al. 2022; Kitson 2018). It focuses primarily on patients' routine physical, psychosocial and relational needs, which are the foundation of any caring interaction. In addition to emphasising the importance of the nurse–patient relationship, the FOC framework centres on practical care activities aimed at helping patients cope with their basic care needs (Kitson 2018).

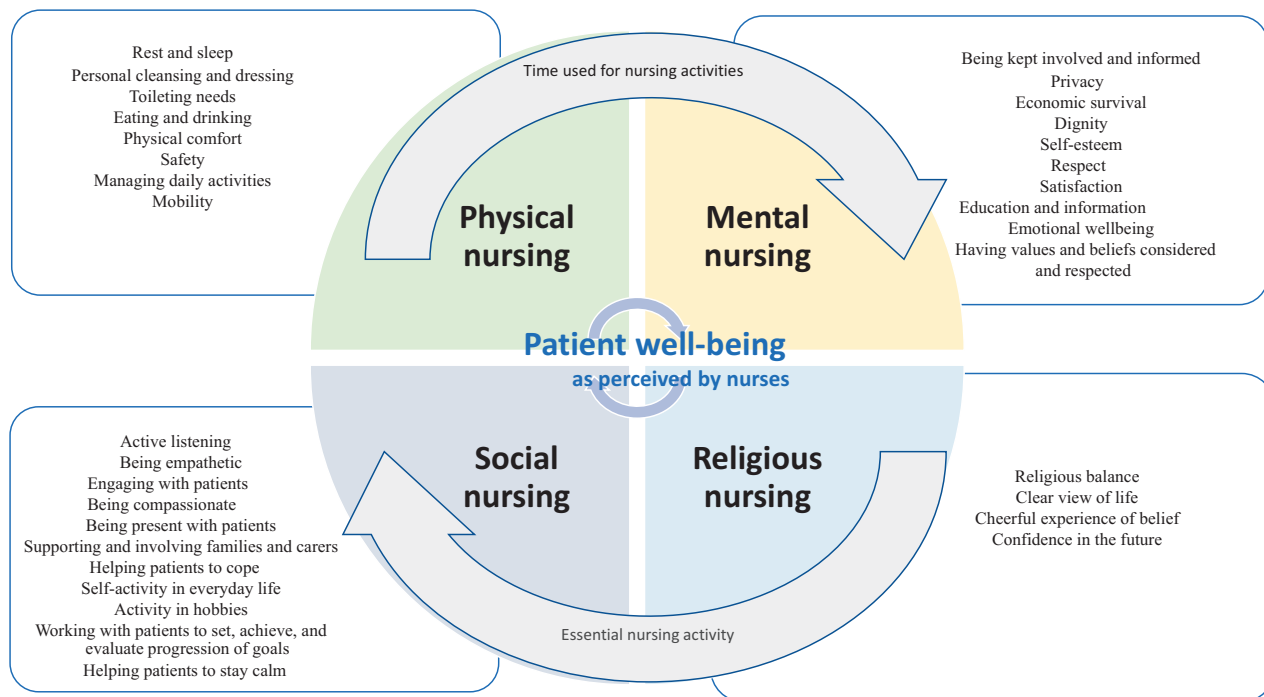
Patients with varying degrees of disease severity have different needs to maintain their well-being. In particular, patients are more vulnerable to deterioration of their condition after emergency hospitalisation, after surgery and during recovery from critical illness (Albutt et al. 2020). For example, in the intensive care unit where patients are in serious conditions, well-being is mainly related to the relationship with nurses and the feeling of security and trust in nurses. Accordingly, nurses need time to promote patient well-being (Sørensen et al. 2013; Van Keer et al. 2017). If clinical deterioration is not responded to promptly, it can lead to a number of serious consequences for the patient, including prolonged hospital stay, admission to the intensive care unit and increased morbidity and mortality (Johnston et al. 2015; Soar and Subbe 2012; Stelfox et al. 2014). Providing care that reduces physical discomfort is seen as meeting the patients' basic care needs, which is a clearly stated ethical requirement for nurses (Michel et al. 2021) and is one of the

strongest arguments in the FOC (Kitson 2018). Basic care involves nursing activities that respect and focus on a person's essential needs to ensure physical and psychosocial well-being (Feo et al. 2018).

Achieving the best possible patient well-being during inpatient treatment, regardless of the patient's condition and specifics of the problems, is an important goal of nursing work. When planning and performing nursing activities, it is necessary to target activities based on patient well-being. Physical nursing activities include providing general patient care, ensuring cleanliness and facilitating eating and movement (Ahonen et al. 2015; Rautava-Nurmi et al. 2016; Roper et al. 1999). In the care of elderly patients and the treatment of pain, movement plays an essential role (Hancock et al. 2003). Mental nursing activities mainly support the patients' mental coping such as communication, coping with mood changes and monitoring the general mental state (Rautava-Nurmi et al. 2016; Roper et al. 1999). Accordingly, the factors influencing the care environment such as a calm environment, the rhythm of daily activities and a patient-centred approach, need to be considered for promoting mental health (Meriläinen 2012). Creating and ensuring such an environment and the exchange of information between nurses and social workers are critical in ensuring the best mental well-being for the patients. Meanwhile, social nursing activities require observation of the social needs of the patients. Although social problems are readily noted in theory, it is difficult to apply this knowledge into practice (Maunu 2014). Nurses must be able to recognise and respond to patients' psychosocial needs (Hull 2013). Religiosity is a part of a person's worldview, and different people have varying experiences. In nursing, religiosity means supporting the patients' faith and discussing the meaning of life in a manner that respects their values and faith, regardless of the nurses' personal beliefs and values (Flinck 2012).

Approaching patient well-being from a holistic perspective, nurses contribute to its insuring. The FOC framework describes three main dimensions of providing quality primary care: ensuring a trusting relationship between the patient and care provider, meeting the patient's physical, psychosocial and communication needs, and providing a total care solution. From the perspective of ensuring patient well-being as perceived by nurses, a framework has been adapted to include patients' religious needs (Fig. 1). Karaman et al. (2002) studied the relationship between spiritual well-being of patients and spiritual care of nurses and found that, as the level of spirituality and spiritual care of nurses increased, the level of spiritual well-being of patients also increased.

To improve the quality of nursing, it is necessary to learn from each other and analyse the opinions of nurses. Both global and community knowledge provide an op-



**Fig. 1.** Nurse-perceived patient well-being: a theoretical model based on the fundamentals of care framework (adapted from Halvorsen et al. 2022; Kitson 2018).

portunity for this. Filling this gap seeks to contribute to solving the problem by examining one of the most important areas – patient well-being – from the perspective of nursing practice.

This study aimed to discuss the relationship between the time spent on physical, psychological, social and religious nursing activities and the achievement of goals set by nurses in their daily work in terms of patient well-being.

To achieve the aim, we formulated the following research questions:

1. What are the correlations between patients' problems (somatic, mental, social and religious problems) and the time spent by nurses on nursing activities and the importance of such activities?
2. What type of nursing activities (physical, mental, social or religious) do nurses consider more essential regarding patient well-being?
3. How have the goals set by nurses for their daily work in terms of patient well-being changed over time?

## MATERIALS AND METHODS

The materials and methods were reported using 'Strengthening the Reporting of Observational Studies in Epidemiology' guidelines (Vandenbroucke et al. 2007).

The study had a cross-sectional survey design and was conducted in three different years (1999, 2009 and 2021).

The description of development over time was based on successive cross-sectional studies (one in every 10 years). A repeated cross-sectional study design was used. Data were collected from the same target population at different time points. Therefore, the repeated cross-sectional study design was used to analyse the changes in the nurses' opinions over time (Wang and Cheng 2020). In all three studies, hospitals throughout Estonia were included in the study. In study I, 14 hospitals participated. The selection criterion was the presence of an internal and surgical department. In 2009, the Estonian health care system had already been restructured and many hospitals were closed or their functions changed. Six hospitals with internal and surgical departments, which were the cooperation partners of Tallinn Health Care College, participated in study II. Fourteen 'Hospital Network Development Plan' hospitals participated in study III (Table 1).

A paper-and-pencil questionnaire was used for the surveys in studies I and II. Paper copies of the questionnaires were distributed to the nurses in cooperation with the head nurses of the departments. The forms were placed in envelopes and returned in sealed envelopes. The data were then entered into Excel. In study III, an electronic questionnaire was used. Action Dialog (Research Automators) – a Swedish software – was used for the online

**Table 1.** Studies I, II and III among the participating hospitals

	Study I, 1999	Study II, 2009	Study III, 2021
North Estonia	Järvamaa Hospital	Järvamaa Hospital	Järvamaa Hospital
	Keila Hospital		Raplamaa Hospital
South Estonia	Viljandi Hospital		Viljandi Hospital
	Põlva Hospital		Põlva Hospital
	Võru Hospital		South-Estonia Hospital
	Jõgeva Hospital		Valga Hospital
			Tartu University Hospital
West Estonia	Pärnu Hospital	Pärnu Hospital	Pärnu Hospital
	Kuressaare Hospital		Kuressaare Hospital
	Hiiumaa Hospital		Läänemaa Hospital
			Haapsalu Neurological Rehabilitation Centre
East Estonia		East Viru Central Hospital	East Viru Central Hospital
	Rakvere Hospital		Rakvere Hospital
	Tapa Hospital		Narva Hospital
Tallinn	Tallinn Mustamäe Hospital	The North Estonia Medical Centre	The North Estonia Medical Centre
	Tallinn Oncology Hospital		
	Järve Hospital	East Tallinn Central Hospital	East Tallinn Central Hospital
		West Tallinn Central Hospital	West Tallinn Central Hospital

survey. The link to the survey was distributed through hospital intranets and mailing lists as well as through social media groups with nurse members. For all three surveys, the data were received without personalisation. Before completing both the paper and online surveys, all participants were informed about the study, that their personal information would be kept confidential and their privacy protected through an informed consent form. By completing the questionnaire, the participating nurses consented to take part in the study. Answering all questions was not compulsory; thus, some respondents did not answer some questions. Each nurse could only answer once per survey. It was unknown how many nurses participated and responded at different stages of the study. Some changes were made to the questionnaire before each survey to clarify terminology. The content of the questions was not changed. The nurses were asked to think of a work shift when answering the questions.

The study population consisted of nurses who had at least one year of work experience as a nurse. Nurses who worked in internal medicine or surgery departments of Estonian hospitals were included in studies I and II and those in the inpatient departments of the development plan

hospitals in study III. A total of 490 nurses participated in study I, 204 in study II and 210 in study III.

The questionnaire prepared by the International Working Group of The Baltic–Finland NuRsE project in 1997 and piloted in 1998 was used herein. It is based on Donabedian's model (1980, 1988, 2005). In addition, Maanen's views (1984), Benner's model (1993) and Rauhala's holistic human approach (2005) were used, and the development of nursing work and health care in the Baltic countries was taken into account (Ernits 2018).

The questionnaire has a total of 42 questions. A part of the questionnaire was used in the study (Fig. 2). Questions 1–10 focus on background information: age, type of employment, work experience, education and workplace, and are multiple choice or numerical. Questions 11 and 12 are about patient age groups and frequency of problems in the department. Herein, the respondents were asked whether there were patients in their department who have somatic, mental, social or religious problems. A Likert scale is used, with scores ranging from 1 (not at all) to 5 (very many). Question 23 investigates how essential the achievement of the goals is outlined in the nurses' daily work in relation to patient

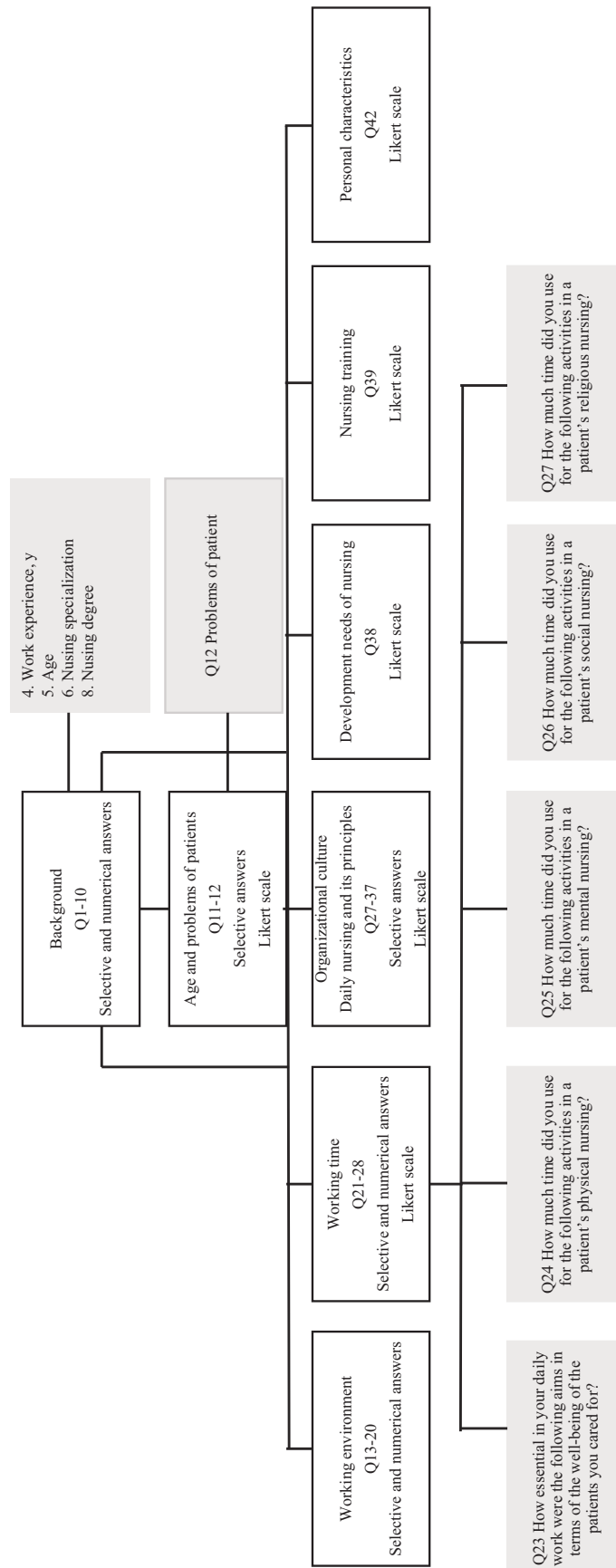


Fig.2. Structure of the surveys in studies I, II and III (current study – grey).

well-being. The nurses were asked to think of one work shift when answering. A Likert scale is also used, with scores ranging from 1 (not at all important) to 4 (very important). Statements in question 23 are grouped into physical (coping with daily life activities or nutrition; statements 1–8), psychological (finding hope or coping with life crises; statements 9–16), social (maintaining family relationships, friendships and role; statements 17–24) and religious (religiousness or clear vision of life; statements 25–27) nursing. For each domain, the average score for all questions and the corresponding percentage were calculated.

Questions 24–27 focus on the nurses' assessment of the use of their time in exchange for the physical (question 24, 24 statements), psychological (question 25, 20 statements), social (question 26, 21 statements) and religious (question 27, 10 statements) nursing activities. A Likert scale and numerical responses are used, with scores ranging from 1 (not at all) to 7 (about 3 hours). It was possible to answer numerically when the answer was more than 3 hours. The survey asked (questions 24–27) 'How much time did you use for the following activities in a patient's physical/mental/social/religious nursing?' In the analysis, the numbers were converted to minutes and numerical features created: 'not at all' for 0 min, 'about 5 min' for 5 min, 'about 15 min' for 15 min, 'about 30 min' for 30 min or 'about 1 h' for 60 min. The average time spent during the shift on physical/mental/social/religious nursing activities was then evaluated.

Data were analysed using IBM SPSS version 22.0 (IBM Corp, Armonk, NY). Descriptive statistics, cross tabulations and correlations were used to analyse the data. Missing responses were removed from the analysis. ANOVA and the chi-square test were utilised to compare differences between the years and socio-demographic factors. Pearson's correlation analysis was performed to determine the relationship between the scale scores. Good

scientific practice was followed at all stages of the study. Necessary research permissions were obtained before conducting each study. According to the Estonian legal system, studies I and II required written or verbal permission from the institutions involved in the study. Study III was approved by the Research Ethics Committee of the University of Tartu (approval Nos 332/T-21 and 345/M-7).

## RESULTS

The description and background data of the sample were evaluated, and the study results were provided as reference data. A total of 904 nurses participated in the three consecutive studies: study I,  $n = 490$ ; study II,  $n = 204$ ; and study III,  $n = 210$ . The work experience and age differed among the respondents. The average age and median age of the respondents increased at each stage (Table 2). The majority of the respondents had a fixed-term contract with a slight increase in the number of such contracts in study III (study III, 11% [ $n = 23$ ]; study II, 11% [ $n = 3$ ]; and study I, 1% [ $n = 5$ ]).

The proportion of nurse specialists was lower in studies I and II than in study III owing to the change in the concept of nurse specialists over time. In the 1990s, there were significantly more nurses designated as specialist nurses (Table 3). All questions were not answered by 22 nurses in study I and by 38 nurses in study II; there were no missing values in study III.

The proportion of nurses with a higher educational level increased at each stage: 0.4% ( $n = 2$ ) in study I, 42.6% ( $n = 86$ ) in study II and 91.9% ( $n = 193$ ) in study III (Table 3).

The proportion of nurses with a higher educational level increased significantly at each stage. This increase significantly improved the knowledge and skills of the

**Table 2.** Age and work experience of the nurses

		1999					2009					2021				
		n (%)	mean	min	max	SD	n (%)	mean	min	max	SD	n (%)	mean	min	max	SD
Work experience, y	0–5	110 (23)	16	1	47	11	33 (17)	19	1	55	12	51 (24)	19	1	52	13
	6–10	100 (20)					27 (14)					32 (15)				
	11–20	134 (27)					60 (30)					36 (17)				
	>21	144 (30)					78 (39)					91 (43)				
Age	21–30	201 (41)	36	21	66	11	42 (21)	41	23	73	11	44 (21)	43	22	72	12
	31–40	130 (27)					66 (33)					43 (20)				
	41–50	85 (18)					54 (27)					68 (32)				



**Table 3.** Level of education and place of work of the nurses

		1999	2009	2021
		n (%)	n (%)	n (%)
Nurse specialist	No	239 (52.9)	88 (48.4)	134 (63.8)
	Yes	213 (47.1)	94 (51.6)	76 (36.2)
Level of education	Vocational education	481 (99.6)	116 (57.4)	17 (8.1)
	Applied higher education or bachelor's degree	2 (0.4)	86 (42.6)	193 (91.9)
Place of work	Central hospital	85 (18.0)	0 (0.0)	62 (29.5)
	Other	285 (60.4)	91 (44.8)	36 (17.1)
	Regional hospital	102 (21.6)	112 (55.2)	112 (53.3)

**Table 4.** Nurses' assessment of the frequency of patients' problems in their department

		1999	2009	2021	
		n (%)	n (%)	n (%)	Chi-square p
Somatic problems	Not at all or quite a few	137 (34)	49 (27)	24 (11)	
	Quite many, many or very many	264 (66)	133 (73)	186 (89)	0.000
Mental problems	Not at all or quite a few	195 (43)	68 (35)	31 (15)	
	Quite many, many or very many	256 (57)	125 (65)	179 (85)	0.000
Social problems	Not at all or quite a few	115 (25)	55 (28)	40 (19)	
	Quite many, many or very many	339 (75)	139 (72)	170 (81)	0.073
Religious problems	Not at all or quite a few	405 (96)	180 (96)	159 (76)	
	Quite many, many or very many	15 (4)	7 (4)	51 (24)	0.000

nurses, enhancing their ability to recognise the problems of patients (Table 4).

Studies I, II and III showed significant differences in the time spent on physical ( $p = 0.049$ ), mental ( $p = 0.012$ ) and religious nursing ( $p = 0.007$ ). No significant changes were found in the time spent on social nursing ( $p = 0.645$ ; Table 5). In all studies, significant differences were found in the time spent on physical ( $p = 0.049$ ), mental ( $p = 0.012$ ) and religious nursing ( $p = 0.007$ ). The time spent on social nursing did not significantly differ ( $p = 0.645$ ; Table 5).

The most essential activities for nurses, regardless of the year, were related to the physical care of the patients. The proportion of the rating 'very essential' for physical nursing increased from 23.7% in 1999 to 63.3% in 2021. Religious nursing activities were the activities considered the least essential by the nurses. Nurses' assessment of the

essential nature of religious nursing activities was polarised, with an increase in the number of nurses who considered religious nursing to be non-essential and very essential. The same trend was observed in social nursing (Table 6).

In study I, physical, psychological, social and religious well-being positively correlated with each other. Social and religious nursing moderately correlated with each other ( $r = 0.576$ ). The other variables showed a weak correlation ( $r = 0.152$ – $0.432$ ). Time use was relatively harmonious: the correlations between the components of well-being and time use were relatively weak ( $r = -0.133$ – $0.181$ ; Table 7).

In study II, the nurse-perceived physiological, mental, social and religious well-being positively correlated with each other. The correlations between mental and social, psychological and religious, and social and religious well-

**Table 5.** Time spent on physical/mental/social/religious nursing

	1999						2009						2021					
	n	mean	median	min	max	SD	n	mean	median	min	max	SD	n	mean	median	min	max	SD
Time spent on physical nursing (%)	490	50	50	0	100	19	204	52	52	0	100	19	210	53	55	0	99	22
Time spent on mental nursing (%)	490	34	33	0	98	14	204	31	29	0	95	14	210	32	30	1	95	16
Time spent on social nursing (%)	490	13	10	0	79	12	204	14	12	0	54	11	210	13	10	0	39	10
Time spent on religious nursing (%)	490	3	2	0	36	4	204	3	2	0	30	4	210	2	0	0	22	4

**Table 6.** Essentiality of the following aims in terms of patient well-being in the daily work of the nurses

		Not at all essential	Not very essential	Essential	Very essential
Physical nursing	1999	0.2%	8.0%	68.1%	23.7%
	2009	0.5%	6.4%	58.3%	34.8%
	2021	1.0%	7.6%	28.1%	63.3%
Mental nursing	1999	0.2%	7.6%	81.4%	10.7%
	2009	0.5%	13.3%	68.5%	17.7%
	2021	1.9%	16.7%	42.4%	39.0%
Social nursing	1999	2.5%	26.3%	63.0%	8.1%
	2009	3.5%	29.7%	55.9%	10.9%
	2021	8.1%	25.2%	33.3%	33.3%
Religious nursing	1999	4.0%	29.1%	61.5%	5.5%
	2009	7.5%	33.7%	48.7%	10.1%
	2021	13.3%	26.7%	39.0%	21.0%

being were moderate ( $r = 0.539\text{--}0.657$ ). The other variables showed a weak correlation ( $r = 0.290\text{--}0.490$ ). Time use was relatively harmonious: the correlations between the components of well-being and time use were comparatively weak ( $r = -0.259\text{--}0.292$ ; Table 7).

In study III, the nurse-perceived physiological, mental, social and religious well-being positively correlated with each other. Psychological and social nursing ( $r = 808$ ), social and religious nursing ( $r = 848$ ) and psychological and religious nursing ( $r = 0.720$ ) showed strong correlations. Moderate correlations ( $r = 0.5\text{--}0.7$ ) were observed between physical and mental nursing ( $r = 0.653$ )

and between physical and social nursing ( $r = 0.546$ ). Physical and religious nursing were weakly correlated with each other ( $r = 0.399$ ). Time use was relatively harmonious: the correlations between the components of well-being and time use were relatively weak ( $r = -0.251\text{--}0.347$ ; Table 7).

## DISCUSSION

The present study aimed to examine the relationship between physical, mental, social and religious nursing



**Table 7.** Pearson correlation between the importance and time use in relation to well-being in 1999, 2009 and 2021

		Nurse-perceived patient well-being				Time spent on nursing activities			
		Physical nursing	Mental nursing	Social nursing	Religious nursing	Physical nursing	Mental nursing	Social nursing	Religious nursing
Correlations in 1999	Nurse-perceived patient well-being	Physical nursing	1						
		Mental nursing	0.297**	1					
		Social nursing	0.152**	0.399**	1				
		Religious nursing	0.183**	0.432**	0.576**	1			
	Time spent on nursing activities	Physical nursing	0.032	0.003	-0.128**	-0.118*	1		
		Mental nursing	-0.009	-0.025	0.001	-0.032	-0.689**	1	
		Social nursing	-0.035	0.013	0.168**	0.181**	-0.642**	-0.082	1
		Religious nursing	-0.018	0.038	0.111*	0.133**	-0.391**	-0.0323	0.342**
Correlations in 2009	Nurse-perceived patient well-being	Physical nursing	1						
		Mental nursing	0.490**	1					
		Social nursing	0.290**	0.558**	1				
		Religious nursing	0.305**	0.539**	0.657**	1			
	Time spent on nursing activities	Physical nursing	0.153*	-0.090	-0.259**	-0.222**	1		
		Mental nursing	-0.147*	-0.0135	0.040	0.079	-0.696**	1	
		Social nursing	-0.043	0.112	0.292**	0.230**	-0.649**	-0.051	1
		Religious nursing	-0.090	0.147*	0.245**	0.139*	-0.483**	-0.002	0.428**
Correlations in 2021	Nurse-perceived patient well-being	Physical nursing	1						
		Mental nursing	0.653**	1					
		Social nursing	0.546**	0.808**	1				
		Religious nursing	0.399**	0.720**	0.848**	1			
	Time spent on nursing activities	Physical nursing	0.078	-0.152*	-0.251**	-0.223**	1		
		Mental nursing	-0.036	0.148*	0.209**	0.199**	-0.780**	1	
		Social nursing	0.034	0.239**	0.347**	0.296**	-0.710**	0.372**	1
		Religious nursing	-0.005	0.043	0.116	0.148*	-0.375**	0.093	0.482**

\*\* significant at the 0.01 level (two-tailed); \* significant at the 0.05 level (two-tailed)

activities and the achievement of goals nurses set to achieve patient well-being in their daily work. Ensuring patient well-being is crucial for achieving good therapeutic outcomes (Harrison et al. 2012); when setting goals for daily nursing activities, nurses must remember this. In nursing activities and setting goals for nursing work, nurses should consider the four domains of nursing: physical, mental, social and religious. Considering the holistic FOC framework yields a greater chance of ensuring patient well-being (Kitson 2018).

The first question addressed the relationship between the different problems of patients and the time nurses spend on nursing activities and the importance of such

activities. Somatic, mental, social and religious problems can be resolved by physical, mental, social and religious nursing activities, respectively. At each stage, the patients had significantly more somatic, mental and social problems but significantly fewer religious problems. In study I, 70 respondents did not answer the question about religious problems. This is probably owing to the nurses' lack of knowledge and the work culture focusing on physical care. No such response was given in the subsequent studies, and the participants answered all questions in study III.

A comparison of the three studies revealed that the nurse-perceived patient problems tended to increase over

time. This does not necessarily mean that patients have more problems but suggests that nurses become better trained. Nurses with higher levels of education are more likely to perceive a variety of problems and are therefore more likely to highlight them in surveys. Nurses with a higher level of education are able to recognise the presence of various problems and their connection to the patients' health status. The patients in the hospitals had an increasing proportion of problems. Therefore, nurses should have the time, opportunities and skills to help patients with their problems. Views regarding the nurse–patient relationship did not remarkably change at each stage. However, the relationship between the nurses and patients tended to be inadequate.

The second question addressed the type of nursing activities nurses considered the most essential for the well-being of patients. While meeting basic physical needs is one of the most important requirements according to the literature (Feo et al. 2018; Kitson et al. 2013; Michel et al. 2021), meeting mental and social needs is becoming increasingly more essential (Kitson 2018; Rautava-Nurmi et al. 2016). These three domains were included in religious nursing activities in this study, the underestimation of which may lead to a decline in patient well-being. The supplemented FOC framework (Fig. 1) also includes religiosity. In achieving goals related to patient well-being, physical care was rated as 'significant' or 'very important' in all three studies, with a significant increase in the proportion of the rating 'very important'. Despite the growing recognition of the crucial role of mental health care, nurses do not seem to rate its relevance highly in terms of patient well-being. Patient well-being in social nursing was rated 'rather important' or 'not very important' for the nursing goals. Religious nursing was considered 'not very important'. The proportion of nurses who do not consider it important at all increased over time as well as the proportion of nurses who consider it very important. The NANDA International, Inc. (2014) classification of nursing diagnoses used in the education and health care system of nurses in Estonia could be one of the explanations for the increasing importance of religious goals.

The last question discussed how the goals nurses set for themselves in their daily work with regard to patient well-being had changed over time. The comparison of the three studies showed that the correlations perceived by the nurses regarding the importance of physical, mental, social and religious nursing for patient well-being increased over time. There was no significant change between the time spent on nursing activities and the importance of physical, mental, social and religious nursing care. The greatest change over time was observed between the importance of mental health care and time spent on social care. The correlation with the time spent on nursing activities did not significantly change.

The study results indicate that in terms of patient well-being, nurses consider achieving the goals associated with physical care as the most important part of their daily work. Mental and social nursing activities are seen as equally important to patient well-being but less important than physical care. The proportion of religious nursing activities is remarkably low. Whether patient well-being can be achieved if nursing activities are more focused on physical nursing remains unclear. In the studies conducted in hospitals of active care and especially at the time of study III, the length of hospital stay significantly shortened, which caused the nurses to be unable to solve all patients' problems.

The cross-sectional design used proved to be suitable to achieve the specified study aim but raised some limitations in drawing comprehensive conclusions. The low response rate can be considered a limitation of the study. Notably, evaluating a single shift may not provide a complete insight into the actual work of the nurses, which can also be seen as a limitation. As the sample was determined in accordance with the same criteria in all three stages of the study, some differences in the possible sample might have been caused by the health care reform in Estonia. The merger of hospitals into larger hospitals might have affected the nurses' response activity and is also the reason why southern Estonian hospitals were excluded from study II.

Study III was conducted in the summer of 2021 after the COVID-19 peak season. Therefore, nurses' motivation to respond may have waned, and patients' problems may have changed owing to the unusual circumstances; for example, a heavy workload may have made it impossible to solve patients' religious or even social problems. Despite these limitations, the current results are still of value.

The strengths of the study lie in the cross-sectional view of the development of nursing over 30 years. A repeated cross-sectional study design was used, in which data were collected from the same target population at different time points. Each year, there was a different sample of the target population. We analysed the changes in the population over time. It is also important to highlight the four-dimensional treatment of nursing and its link to activities focused on patient well-being.

## CONCLUSIONS

This study investigated daily nursing activities in relation to patient well-being. The main aim was to investigate the relationships between physical, mental, social and religious nursing activities in Estonian hospitals and the achievement of nurses' goals in their daily activities related to patient well-being and the time spent on nursing activities. Well-being is a broad concept that encompasses

many nuances. Regardless of whether a person is ill or well, well-being is an important aspect in a person's life. Thus, the chance that the health status will improve is significantly greater if the patient perceives a sense of well-being; nurses play a key role in ensuring this. These professionals are the health care providers closest to the patients and can make the patients feel comfortable by meeting their various needs. In all three stages of the study, the contribution of nurses, working in the hospital's stationary departments, to the well-being of patients was evaluated. The importance of physical, mental, social and religious nursing activities and the time spent on these activities were examined.

The authors believe that this study will provide two inputs to ensure patient well-being. First, it is crucial that nurses think more about patient well-being already when planning their work, through the four focuses of nursing activities. Secondly, it is extremely important to study the well-being of patients in Estonian hospitals, which especially at this stage, needs more attention.

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## Igapäevased õendustegevused patsiendi heaolu tagamisel: korduv läbilõikeuuring

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Olenemata patsiendi tervislikust seisundist on olulisel kohal tema heaolu, mis on tervisega otseselt seotud. Heaolu on laiaulatuslik mõiste, ulatudes traditsioonilistest biomeditsiinilistest vaadetest terviklikule vaatele tervisest, hõlmates füüsilisi, psühholoogilisi, sotsiaalseid kui ka religioosseid mõjureid. Kui inimene on haige või tal on mõni krooniline haigus, mõjutab see tema healukogemust, seega on heaolu seotud mistahes tervisega seotud elukogemusega. Heaolu tagamine ja selle suurendamine on õenduse üks peamisi eesmärke. Patsiendi heaolu kui strateegia paremate tervisetulemuste saavutamiseks on ülioluline. On leitud, et patsiendi kõrgem enesehinnanguline heaolu seostub vähema haiglaravi, esmaabi ja ravimite kasutamisega.

Uuringus käsitletakse füüsilise, psüühilise, sotsiaalse ja religioosse õendustegevuse seoseid õdede igapäevatoos püstitatud eesmärkide saavutamisel patsientide heaolu seisukohalt. Kasutati läbilõikelist uuringudisaini kolmel aastal (1999, 2009, 2021).

Kolmes järjestikuses uuringus osales kokku 904 õde: I uuring N = 490, II uuring N = 204 ja III uuring N = 210. Vastaja pidi olema õde, tema töökogemus õena pidi olema vähemalt üks aasta.

Uuringust tulenes, et õdede arvates on patsiendi somaatiliste, mentaalsete, sotsiaalsete ja religioossete probleemide esinemine suurenenud igal uuringu etapil. Samas on oluliselt tõusnud õdede haridustase, millest võib teha järelduse, et haritumad õed märkavad patsientide probleeme rohkem. Kaasav, universaalne, tervikut haarav õendustegevus on patsiendi heaolu saavutamisel oluline. Uuringu tulemusel võib väita, et patsiendi heaolu seisukohalt peavad õed oma igapäevatöös kõige olulisemaks füüsilisele õendusele iseloomulike eesmärkide saavutamist. Psüühilist ja sotsiaalset õendustegevust peavad õed patsiendi heaolu saavutamiseks samuti oluliseks, kuid siiski vähem kui füüsilist. Religioossete õendustegevuste osakaal on märgatavalt väike kõikidel uurimisaastatel. Küsitav on, kas patsiendi heaolu on saavutatav juhul, kui õendustegevused on kaldu füüsilise õenduse poole.