

DEVELOPING A WORK WELL-BEING QUESTIONNAIRE FOR SOCIAL- AND HEALTH-CARE MANAGERS

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Abstract

Objectives: There is a need for up-to-date research on health-care and social managers' work well-being. The purpose was to develop a questionnaire for measuring health-care and social managers' subjective work well-being and to determine whether their background factors are connected to their work well-being. **Material and Methods:** The authors developed a questionnaire based on their previous health-care and social managers' work well-being framework. It covers 5 separate categories: 1) individual factors, 2) social factors, 3) professional support from one's own manager, 4) organizational factors, and 5) work-related factors. Using statistical methods, the authors examined the questionnaire's internal validity, its fit with the framework, and the connections between several background factors and work well-being. The survey data (N = 281) were collected from South Ostrobothnia and Central Ostrobothnia in Finland. **Results:** The questionnaire's internal validity was good, and it fit rather well with the authors' previous framework. Managers' work well-being was highest for the category of "professional support from one's own manager" and lowest for "organizational factors." The authors found connections between different categories of work well-being and a) years of managerial experience, b) level of management, and c) occupational group. **Conclusions:** The questionnaire gives a holistic view of managers' work well-being and is suitable for measuring work well-being in the social- and health-care context. An examination showed that there is a need to improve the individual situations of the social- and health-care managers. The questionnaire can be used to assess managers' work well-being and to build a knowledge base for developing organizational policies. *Int J Occup Med Environ Health.* 2022;35(6):665–78

Key words:

survey, social care, manager, questionnaire, health care, work well-being

INTRODUCTION

The population ages, the level of demands for social and health care increases, part of the population is marginalized by various of reasons, and evolving technology makes it possible to identify and treat new conditions. This has led to a steady increase in the need and demand for social and health services [1]. In addition, crisis situations, such as the spread of a global pandemic, place their own demands on the production and management

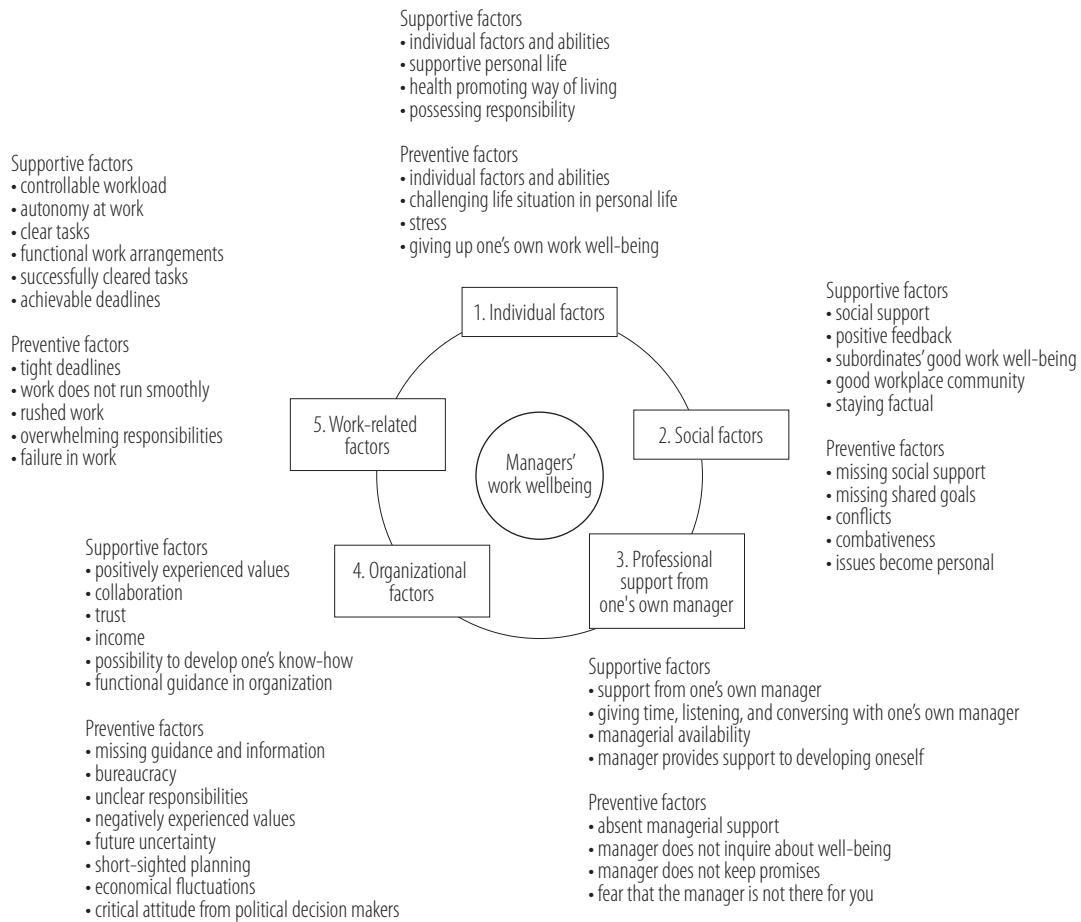
of social- and health-care services [2]. This has placed social- and health-care systems in challenging situations with regard to general societal development.

The role of health-care and social managers is central to the development of safe and healthy working conditions and the optimal effectiveness of nursing and care work [3]. However, recruiting new managers is challenging. This is partly due to the low attractiveness of the work [4]. The demands and responsibilities placed

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Figure 1. Categories of work well-being of health-care and social managers and their content [16]

on the workers in health-care organizations are currently increasing, and they may be unable to influence those demands [3]. A manager may have an unreasonable amount of work, and unrealistic expectations may be placed on him or her in terms of work input [4]. Although health-care and social managers' work well-being is important, there is a lack of research on this issue [5].

Work well-being is a part of an individual's wellbeing, and it can be described as a subjective experience with affecting factors and consequences. Emotions and feelings can be seen as a general indicators of work well-being. Emotional states related to work well-being change as the pre-requisite factors – that is, the factors affecting well-being

at work – change [6]. There is no single generally accepted definition of work well-being [6–8]. The concept of work well-being is broader than, for example, its cognate concepts of work ability and job satisfaction [9].

Traditionally, work well-being has been examined based on its negative manifestations, such as stress and burn-out [6,9,10]. The main research target has continued to be work stress; see, for example, Karasek's [11] work stress model. Another model that dominates the research was created by Warr [12], who defines different relationships between work traits and well-being. The third classic widely used model is Siegrist's [13] effort-reward imbalance model [14]. Recent research has also focused

on, for example, reconciling work with family, work well-being and productivity [15], and positive work well-being graphs, such as work engagement [9,15].

Research design and questions

In this study, the authors analyze work well-being using their health-care and social managers' work well-being framework, which is based on 5 different categories: individual factors, social factors in the workplace, professional support from one's own manager, organizational factors, and work-related factors (Figure 1) [16]. All of these categories include several factors that affect work well-being either positively or negatively.

Individual factors include individual abilities that are work well-being supportive (e.g., the ability to manage time, delegate, and ask for help) and/or preventive (e.g., problems with regard to limiting work, challenges with time management, and high demands on oneself). In addition, one's personal life can affect one's subjective work well-being both positively and negatively. Social factors – for example, social support from colleagues, subordinates, and political decision-makers, as well as conflicts and a paucity of social support – affect work well-being. Professional support from one's own manager is a factor that affects work well-being both positively and negatively. In addition, organizational factors – for example, positively experienced values (e.g., appreciation), trust, and collaboration – are considered important for good work well-being. In this study, missing guidance and unclear responsibilities, for example, are considered detrimental for work well-being. Work-related factors, such as tight deadlines and overwhelming responsibilities, erode work well-being, while manageable workloads, achievable deadlines, and work autonomy support it.

The choice of the work well-being concept was strategic because the aim was to keep the focus on work well-being (and not on holistic well-being, for example). The aim was to identify the factors that managers feel affect their own,

subjective work well-being. In this study, the term “subjective” means the manager's own perception of the presence or absence of the factors that affect work well-being. The authors assume that when a manager perceives a factor as supporting his or her work well-being based on his or her experiences, it does enhance his or her work well-being and vice versa.

Municipal social welfare and health-care services, implemented with government support, form the basis of Finland's social welfare and health-care system. Private companies also provide services alongside the public sector [17]. Social- and health-care organizations are often led by professionals who have been educated in the social- or health-care profession. In many cases, doctors manage doctors, social workers manage social workers, and nurses manage nurses.

The health-care and social service sector in Finland is characterized by the so-called political–bureaucratic–professional tradition [18], some aspects of which affect health-care and social managers' work well-being [16]. To mention one aspect in Finnish operational environment is critical attitudes from political decision makers, which can have a negative effect on managers' work well-being and the same applies to short-sighted planning (e.g., in electoral terms) [16].

The authors' philosophy of science is built on critical realism [19]. Drawing on realism, the authors assume that the factors affecting work well-being can be uncovered by studying key informant interviews, undertaking the content analysis and literature review, and developing a framework that describes the work well-being of health-care and social managers in Finland. This perception allows the authors to create an instrument based on this framework. Furthermore, this study is based on perception: When an individual subjectively experiences a factor that affects his or her work well-being, it affects his or her experience in either a positive or negative way [19]. In this study, the authors use the term “supportive” to de-

scribe factors that improve work well-being and the term “preventive” to describe factors that have a negative effect on work well-being. Furthermore, health-care and social managers are first-line, middle, and senior managers who work in the social- and health-care field in the public sector and represent their own profession (social managers, nursing managers, medical managers, and others).

This study is part of a body of research that aims to create a fast and easy-to-use questionnaire to assess the work well-being of health-care and social managers and to ascertain the work well-being of Finnish health-care and social managers. The purpose of this study is to examine the reliability and consistency of the questionnaire on the work well-being of health-care and social managers. In addition, the background factors related to the work well-being of those in the provinces of Southern Ostrobothnia and Central Ostrobothnia are examined.

The research questions are as follows:

- Is the questionnaire on the work well-being of health-care and social managers reliable, and does it consistently measure their perceived work well-being?
- Do the background variables (age, gender, education, managerial level, years of managerial experience, and professional group) relate to different aspects of the perceived work well-being of health-care and social managers?

Development of the questionnaire

The *Health Care and Social Managers' Work Well-Being Questionnaire* was developed to provide a measure of the holistic perception of the health-care and social managers' subjective work well-being using a single survey. The development of the questionnaire took place in 3 stages:

- literature review and interviews with health-care and social managers to build a framework and content to questionnaire [16],
- formulation of questions,

- evaluation of content and comprehensibility and evaluation of response time based on expert opinions.

In the first phase, the literature concerning managers' work well-being was reviewed, and Finnish health-care and social managers were interviewed [16]. The literature review sought information from previous studies on the factors that supported or prevented the work well-being of individuals in managerial positions. The purpose of the interviews was to supplement the results of the literature review with health-care and social managers' views on the factors that they perceive to support and prevent their own work well-being. Using inductive content analysis, 5 questionnaire categories were created from the interview materials [20]:

- individual factors,
- social factors in the workplace,
- professional support from one's own manager,
- organizational factors,
- work-related factors (Figure 1), which include those that support and prevent work well-being.

In the second phase of questionnaire creation, questions were formed about the factors that support and/or prevent work well-being [16]. For example, in regard to work-related factors, “controllable workload” was a factor influencing work well-being, and the authors thus formed the variable: “My workload is controllable.” The questions were based on a Likert scale (1 – strongly agree, 2 – partially agree, 3 – neither agree, nor disagree, 4 – partially disagree, and 5 – strongly disagree). In addition, 2 questions on social factors related to working with policy makers consisted the option: “Does not apply to me.” For ease of interpretation, the coding of the answers was changed before the analysis, so that the answer option “strongly agree” was code 5, and “strongly disagree” was code 1. The questionnaire consisted of 84 questions with background variable questions (Table 1):

- individual factors (30 questions),
- social factors in the workplace (12 questions),

Table 1. The *Health Care and Social Managers' Work Well-Being Questionnaire* – survey (completed September–November 2019) in Southern Ostrobothnia and Central Ostrobothnia, Finland

Sum variable	Example of question	Work well-being status			Cronbach's α
		n	Me	min.–max	
Individual factors (30 variables)	I am assertive. I am gentle to myself. I am persistent. I think I sleep enough. I can restrain my work.	281	3.80	2.23–4.77	0.87
Social factors (12 variables)	I receive social support from my colleagues. My subordinates' work well-being is good. My work community has a good atmosphere. We don't have common goals in our work community.	280	3.70	1.80–5.00	0.74
Professional support from one's own manager (9 variables)	My manager listens to me. I feel as if my own manager is supporting me.	280	4.11	1.00–5.00	0.94
Organizational factors (16 variables)	Responsibilities are clearly stated in my organization. My future in this organization is uncertain. Planning is shortsighted in my organization.	280	3.50	1.63–4.88	0.84
Work-related factors (10 variables)	My workload is controllable. I have enough autonomy in my work. There's too much hurrying in my work. I have an appropriate amount of responsibility at work.	281	3.70	1.80–4.90	0.78

Examples of single questions on the questionnaire, work well-being status assessed with Likert-scale (1 – strongly disagree, 5 – strongly agree) and Cronbach's α presented by sum variables.

- professional support from one's manager (9 questions),
- organizational factors (16 questions),
- work-related factors (10 questions).

In addition, background information was requested (7 questions). In the third phase of questionnaire creation the questionnaire was sent to 9 health-care and social managers and researchers for their evaluations and responses. Based on the experts' opinions, the questions were understandable, the content was precise, and it took about 15 min to complete the questionnaire. Based on the evaluations, minor changes were made to the layout and wording of the questionnaire.

MATERIAL AND METHODS

This study examined the reliability and consistency of the *Health Care and Social Managers' Work Well-Being Questionnaire*. In addition, the authors examined the background factors related to the work well-being of public

sector health-care and social managers (social care, nursing, doctors, and other professional groups). The study focused on public service organizations producing or organizing social- and health care in Southern Ostrobothnia and Central Ostrobothnia, and 10 primary health care, specialized health care, and social care service organizations participated in the study.

The survey material was collected and managed using the RED Cap survey software [21], which is managed by Tampere University. The material was collected in both Finnish and Swedish in September–November 2019. A cover letter and a link to the questionnaire were sent through the organization's contact person. A total of 306 responses were collected. Information on age and gender was not obtained from all the respondents. There were 119 responses without age and gender data; information on age and gender was available for 187 respondents. The missing responses age and gender questions were classified as separate groups for both variables and

reported separately. The overall response rate could not be calculated because no information was received from 1 organization regarding the number of respondents to whom the link was sent. For the other organizations, the response rate was 53%.

Blank or incomplete responses ($N = 25$) that did not provide information that was relevant to the study were omitted from the data. The final data comprised 281 responses. The data were analyzed using IBM SPSS Statistics 26. Frequencies, percentages and medians, the Kruskal-Wallis test, and Pearson and Spearman correlation were used to describe and analyze the data, and $p < 0.05$ was used as the significance value. The differences between groups were examined using the Dunn-Bonferroni post hoc test. The reliability of the questionnaire was assessed using the Cronbach's α coefficient, and exploratory factor analysis was used to assess the suitability of the components of the questionnaire for the theoretical frame of reference.

Direct Oblim rotation was used as a rotational solution for exploratory factor analysis, wherein a connection (correlation) between factors is allowed. The generalized least squares method was used as the extraction method [22]. Based on the analysis, the decision was made to exclude 2 questions dealing with cooperation with policy makers, as the questions did not concern all the respondents. For the factor analysis, a 5-factor framework was chosen based on the authors' previously described theory. Initially, the suitability of the correlation matrix for the factor analysis was determined using the Kaiser-Meyer-Olkin (KMO) test ($KMO = 0.803$, acceptable value >0.60) and the Bartlett's test (acceptable value $p < 0.001$, $p < 0.001$) [22].

The ethics of the study

This study was conducted in accordance with research ethics principles by Finnish Advisory Board on Research Integrity [23]. The Ethics Committee of the Tampere Region expressed a favorable opinion on the study (Opin-

ion 27/2019). All participating organizations issued research permits. Participation in the study was voluntary, and the study was based on informed consent. No participants or their organizations were identified in this report.

Description of the respondents

Of the participants in the study, 45% were women and 15% were men (Table 2). The largest age group was >51 years old (34%), and 19% of the respondents were 41–50 years old. Nearly half (46%) of the 281 respondents had worked as managers for 6–15 years. A quarter (25%) of all the respondents had up to 5 years of work experience in management. The majority (66%) of the respondents worked as first-line managers, and 56% of the respondents had a master's degree. More than half of the respondents (51%) managed nurses, less than a quarter worked in social care (23%), and every ninth respondent was a doctor (11%). Individuals in the professional group "other" (15%) worked in various administrative positions – for example, support services (e.g., hospital care and IT services) – as well as research and development and quality management.

RESULTS

Questionnaire's suitability for the framework and reliability

Exploratory factor analysis was performed to evaluate the *Health Care and Social Managers Work Well-Being Questionnaire's* suitability for the framework. The overall explanatory share of the 5-factor model was 39.2%, and the communalities of the variables were 0.602–0.944. The factor explanation rates ranged 3.6–18.2%. However, according to the goodness-of-fit test, the factor model did not fit the data well ($\chi^2(2410) = 2590.0$, $p = 0.005$) and required more factors. Examining the factor downloads, 21 factors were found to have an eigenvalue >1 . When eigenvalue is >1 , it can be assumed, according to Kaiser's criterion, that the factor is good [22]. However,

the creation of a factor model with 21 factors would not add value to this study, so the authors decided to continue with the 5-factor model. This is because there was a strong theoretical basis for it, all the variables were loaded into some of the 5 factors, and all the variables were loaded onto the factors reasonably well according to the original structure of the framework. This decision is supported also by Finch [22] who argues that Kaisers' criterion is relatively ineffective at accurately identifying the number of factors, and it's tendency is to retain too many factors.

The 10 variables of professional support from one's own manager were all loaded on the same factor (10 variables, communalities 0.523–0.906). Most of the variables in the individual factors category (21 of the original 30 variables, communalities 0.240–0.662) and organizational factors category (12 of the original 16 variables, communalities 0.149–0.913) were loaded to their own factors. One factor was loaded with variables related to competence development (communalities 0.723–0.740); 1 variable related to work arrangements (communality 0.228); and one factor was loaded with variables from the categories of social factors (8 of the original 10 variables, communalities 0.252–0.519), individual factors (9 of the original 30 variables, communalities 0.154–0.476), work-related factors (2 of the original 9 variables, communalities 0.267–0.285), and organizational factors (2 of the original 16 variables, communalities 0.539–0.640). The 9 variables from the original category of work-related factors were loaded meaningfully to factors so that, for example, the variables "I get my job done successfully" and "I have appropriate responsibilities at work" were loaded to the factor with variables from the individual factors category.

The statements of 5 factors did not have a dispersion that was identical to the structure of the framework (Figure 1) and the questionnaire. However, the authors calculated the sum variables by totaling the variable values and dividing the sum by the number of variables according to the original

questionnaire framework. The authors then assessed the internal validity using Cronbach's α for the whole questionnaire (coefficient 0.93, 75 questions), as well as by category: individual factors (coefficient 0.87, 30 questions), social factors (coefficient 0.74, 10 questions), professional support from one's own manager (coefficient 0.94, 9 questions), organizational factors (coefficient 0.84, 16 questions), and work-related factors (coefficient 0.78, 10 questions). The questions on cooperation with policy makers (2) were excluded from the analysis of the coherence of the whole questionnaire and the category of social factors in the workplace (Cronbach's α), as almost one third (30.2% and 26.4%) answered that the questions did not concern them. As the Cronbach's α coefficients of the categories of the questionnaire varied 0.74–0.94 (Table 1), and the authors conclude, that the internal consistency of the questions in the whole questionnaire and in each category was good [24].

Background factors and work well-being

The authors investigated work well-being (individual factors, social factors, professional support from one's own manager, organizational factors, and work-related factors) and the connections between background factors (age, gender, education, level of management, years of experience as a manager, and professional group) and work well-being in different categories. Table 1 shows the median, minimum, maximum, Cronbach's α , and examples of the sum variable questions for the individual factors, social factors at the workplace, professional support from one's own manager, organizational factors, and work-related factors. A higher median indicates better work well-being in the category, and a lower number indicates worse work well-being in the category. The medians of the categories ranged 3.50–4.11. The respondents felt that their work well-being was the best in terms of professional support from one's own manager (Me 4.11, min 1.00, max 5.00). The worst work well-being was for organizational factors (Me 3.50, min 1.63, max 4.88).

Table 2. The Health Care and Social Managers' Work Well-Being Questionnaire – survey (completed September–November 2019) participants in Southern Ostrobothnia and Central Ostrobothnia, Finland

Variable	Work well-being category														
	individual factors			social factors			professional support from one's own manager			work-related factors			organizational factors		
	Me	min.–max	p	Me	min.–max	p	Me	min.–max	p	Me	min.–max	p	Me	min.–max	p
Age			0.259			0.574			0.363			0.419			0.017
≤40 years (N = 19, 7%)	3.63	3.03–4.53		3.70	2.60–4.80		3.89	1.67–5.00		3.70	2.30–4.90		3.44	2.50–4.50	
41–50 years (N = 53, 19%)	3.87	2.73–4.77		3.60	2.60–4.60		4.33	1.00–5.00		3.80	2.10–4.90		3.50	2.19–4.31	
≥51 years (N = 94, 34%)	3.79	2.23–4.73		3.70	1.80–4.80		4.11	1.56–5.00		3.60	1.80–4.70		3.44	2.06–4.88	
missing responses (N = 114, 40%)	3.78	2.24–4.67		3.70	2.00–5.00		4.11	1.00–5.00		3.60	2.20–4.80		3.56	1.63–4.88	
Gender			0.721			0.359			0.575			0.840			0.006
male (N = 42, 15%)	3.92	2.23–4.77		3.70	2.60–4.80		4.28	1.89–5.00		3.63	1.80–4.80		3.44	2.44–4.56	
female (N = 125, 45%)	3.80	2.43–4.73		3.70	1.80–4.80		4.06	1.00–5.00		3.70	2.20–4.90		3.47	2.06–4.56	
other (N = 0, 0%)	0	0		0	0		0	0		0	0		0	0	
missing responses (N = 114, 41%)	3.78	2.24–4.67		3.70	2.00–5.00		4.11	1.00–5.00		3.60	2.20–4.80		3.56	1.63–4.88	
Education			0.781			0.027			0.157			0.703			0.602
vocational qualification and college degree (N = 62, 22%)	3.80	2.24–4.62		3.80	2.10–5.00		4.44	1.33–5.00		3.70	2.20–4.60		3.56	2.25–4.81	
bachelor degree and bachelor of sciences (N = 59, 21%)	3.90	2.43–4.73		3.70	2.00–4.80		3.89	1.78–5.00		3.70	2.20–4.60		3.38	2.06–4.81	
e.g., master degree* (N = 158, 56%)	3.77	2.23–4.77		3.65	1.80–4.90		4.11	1.00–5.00		3.60	1.80–4.90		3.50	1.63–4.88	
other (N = 2, 1%)	3.75	3.60–3.90		4.40	4.00–4.80		4.61	4.44–4.78		4.10	3.70–4.50		3.69	3.44–3.94	
Level of management			0.604			0.233			0.085			0.229			0.007
first-line (N = 186, 66%)	3.83	2.24–4.73		3.70	2.00–5.00		4.11	1.00–5.00		3.70	2.20–4.80		3.50	1.63–4.88	
middle (N = 53, 19%)	3.80	2.23–4.77		3.70	2.60–4.70		4.00	1.00–5.00		3.60	1.80–4.90		3.44	2.50–4.56	
upper (N = 38, 14%)	3.68	2.67–4.57		3.70	1.80–4.60		4.38	1.56–5.00		3.80	2.40–4.90		3.78	2.38–4.69	
other (N = 4, 1%)	3.75	3.59–4.60		3.08	2.50–3.70		4.94	3.67–5.00		3.95	3.60–4.70		3.75	2.31–4.56	
Experience as a manager (N = 281)			0.449			0.038			0.890			0.007			0.002
0–5 years (N = 71, 25%)	3.77	2.73–4.67		3.70	2.57–4.80		4.22	1.78–5.00		3.67	2.10–4.90		3.50	2.63–4.81	

6–15 years (N = 130, 46%)	3.83	2.23–4.73	3.70	1.80–4.90	4.11	1.00–5.00	3.70	1.80–4.90	3.44	2.06–4.88
16–25 years (N = 42, 15%)	3.76	2.24–4.77	3.50	2.10–4.70	4.00	1.00–5.00	3.50	2.20–4.80	3.28	1.63–4.44
≥26 years (N = 38, 14%)	3.88	3.00–4.63	3.80	2.50–5.00	4.11	1.78–5.00	3.95	2.50–4.70	3.75	2.31–4.56
Professional group (N = 281)			0.095		0.077		0.052		0.144	0.007
social care (N = 64, 23%)	3.87	2.24–4.67	3.80	2.10–4.70	4.06	1.33–5.00	3.60	2.20–4.80	3.47	2.19–4.81
nursing (N = 145, 51%)	3.80	2.43–4.77	3.63	1.80–5.00	4.00	1.00–5.00	3.70	2.20–4.90	3.44	1.63–4.88
doctor (N = 30, 11%)	3.68	2.23–4.30	3.60	2.60–4.90	3.94	1.89–5.00	3.47	1.80–4.60	3.63	2.63–4.69
other (N = 42, 15%)	3.70	2.76–4.60	3.70	2.50–4.56	4.50	1.00–5.00	3.80	2.50–4.80	3.60	2.31–4.67

The missing responses to both age and gender questions were classified as separate groups for each variable and reported separately. Bolded are statistically significant values.

Work well-being status assessed (Me, min–max) with Likert-scale (1 – strongly disagree), and its connections to work well-being categories based on Kruskal–Wallis test (p-values presented).

* Contains options: Master Degree, Master of Sciences, Specialist Degree in Medicine, Licentiate of Sciences, Doctor of Sciences.

In addition, based on the parametricity of the distribution of the sum variable, the interdependence of the sum variables was investigated using either the Pearson or Spearman correlation coefficient. There was moderate correlation between the sum variables work-related factors and individual factors (Pearson’s $r = 0.66$) and professional support from one’s own manager and organizational factors (Spearman’s $r = 0.52$). Other correlations were weaker ($r < 0.41$) [22].

Based on the Kruskal–Wallis test, the statistically significant results of the association between the background variables and work well-being were found in the categories of social factors, work-related factors, and organizational factors. In the categories of work well-being, individual factors and professional support from one’s own manager had no statistically significant connections to the background variables. Table 2 shows the relationship between the background variables (age, gender, education, level of management, years of experience as a manager, and professional group) and the assessment of work well-being in different categories. As the background data lacked age and gender information for some respondents, separate categories were created for them.

The number of years of experience as a manager was statistically significantly related to the areas of perceived work well-being in the categories of social factors, organizational factors, and work-related factors (Table 2). In the category of social factors, those who had been managers for 16–25 years (Me 3.45, min 2.10, max 4.70, $p = 0.034$) assessed their work well-being as worse than those who had worked for >26 years (Me 3.80, min 2.50, max 5.00). With regard to work-related factors, those who had a career of 16–25 years (Me 3.50, min 2.20, max 4.80, $p = 0.003$) assessed their work well-being as worse than those who had been managers for >26 years (Me 3.95, min 2.50, max 4.70). Regarding organizational factors, those who had worked as managers for 16–25 years (Me 3.28, min 1.63, max 4.44) felt that their

work well-being was worse than those who had worked as managers for 0–5 years (Me 3.5, min 2.63, max 4.81, $p = 0.032$) and >26 years (Me 3.75, min 2.31, max 4.56, $p = 0.003$).

Age and gender were statistically significantly related to organizational factors. Managers aged >51 years (Me 3.44, min 2.06, max 4.56, $p = 0.023$) rated their work well-being worse in terms of organizational factors than the group whose age information was unavailable (Me 3.56, min 1.63, max 4.88). The respondents with missing gender information (Me 3.56, min 1.63, max 4.88, $p = 0.004$) rated their work well-being as statistically significantly better in the category of organizational factors than women (Me 3.47, min 2.06, max 4.56).

Level of management was statistically significantly related to perceived work well-being in the category of organizational factors. In terms of organizational factors, upper management (Me 3.78, min 2.38, max 4.69) rated their work well-being better than first-line managers (Me 3.50, min 1.63, max 4.88, $p = 0.004$) and middle managers (Me 3.44, min 2.50, max 4.56, $p = 0.02$).

The professional group was statistically significantly related to perceived work well-being in the organizational factors category. Nursing managers (Me 3.44, min 1.63, max 4.88, $p = 0.01$) felt that their work well-being was statistically significantly worse in terms of organizational factors than those belonging to the occupational group “other” (Me 3.60, min 2.31, max 4.67).

Education ($p = 0.027$) was statistically significantly related to work well-being in the category of social factors. However, the Dunn-Bonferroni post hoc test did not reveal any statistically significant differences between the groups in terms of educational background.

DISCUSSION

The authors developed a single questionnaire that can provide a holistic view of the work well-being of health-care and social managers. The questionnaire is based on

a framework that was created from the authors’ previous research. The suitability of the instrument for the framework was assessed using factor analysis.

For the most part, the individual variables of the questionnaire were loaded to the factors according to the theoretical framework. In the future, it would be beneficial to clarify the questionnaire with regard to work-related factors, as the variables measuring it were loaded on factors in other categories. In addition, based on the results, to clarify the questionnaire, it would be necessary to add a section describing education, as the variables measuring educational opportunities were loaded into their own factor. It might also be useful to omit some low-communality variables to shorten the questionnaire.

When assessing a questionnaire that is being developed, it is essential to verify its reliability [24]. The consistency of the questionnaire was assessed using the Cronbach’s α factor. The coefficients were good in all categories (>0.7) and in the whole questionnaire (coefficient 0.93) [24]. Based on the results of the analysis, removing the individual variables from the categories would not improve the Cronbach’s α coefficients and thus would not improve the consistency of the questionnaire. The most consistent category in terms of content was professional support from one’s own manager and the least consistent was social factors, although the values of the latter were at an acceptable level [24]. In the future, the reliability of the questionnaire that was developed for this study could be assessed by making a new measurement and a further remeasurement and examining the correlations between the responses [24]. Efforts were made to improve the content validity of the measure by establishing it on a theoretically sound basis and drafting the questions carefully [24]. In addition, the content validity of the questionnaire underwent expert assessments when the questionnaire was formulated [24].

Based on this study, the internal consistency of the *Health Care and Social Managers’ Work Well-Being Questionnaire*

was good. The measure mostly followed the structure of the theoretical framework based on the authors' previous study. As the questionnaire is based on a literature review and an empirical study, it takes into account the special features of the social- and health-care sector that affect managers' work well-being. It provides a holistic view of health-care and social managers' perceived work well-being in different categories. In this way, efforts to improve work well-being can be directed toward the categories in which development may be necessary.

In this study, the health-care and social managers answered the questions in such a way that the medians of the categories of work well-being ranged 3.50–4.11, with a scale of 1–5. However, an examination of the minimum values showed that there were also very low values, indicating the need to improve the individual situations of the health-care and social managers. Based on this study, of the assessed categories of work well-being, professional support from one's own manager was at the highest level. According to previous research, good employee–management relationships and incentive management affect work well-being [5,16]. Support from management is important for the well-being of health-care and social managers at work [25]. Based on the results, there is ample support from one's own manager, although there were variations among the individual respondents.

Managers' work well-being was highest for the category of professional support from one's own manager and lowest for organizational factors. We found connections between individual factors and work-related factors, as well as between professional support from one's own manager and organizational factors. The direction of the connections was not clarified in this study; therefore, this matter requires further investigation.

Based on the results, having years of experience as a manager was related to work well-being. This link was found in the categories of social factors, work-related factors, and organizational factors. Regarding social fac-

tors and work-related factors, those who had worked for 16–25 years rated their work well-being as worse than those who had worked as managers for the longest period (>26 years). In terms of organizational factors, those who had worked for 16–25 years rated their work well-being as worse than managers with the shortest experience (0–5 years) and longest experience (>26 years). There has been a more positive change in the working capacity of older workers, while younger employees feel that their work is more stressful than before [26]. This should be noted, because this younger age group should be able to survive work life for a long time to come [27]. The work well-being of younger health-care and social managers in particular should be supported, because the results show that they perceive their work well-being as worse in certain categories compared to those with the longer careers [26,27].

Upper management evaluates their well-being more favorably than first-line and middle management in terms of organizational factors, thus supporting previous research [10]. Nursing managers perceived organizational factors negatively. According to a Swedish study, both doctor managers and nursing managers are exposed to stress due to the high demands of their jobs, but nursing managers are at a greater risk of experiencing severe stress than doctors, especially if they have no social support at work [28]. According to an Australian study [29], the administrative responsibilities of nursing managers have increased to such an extent that there is no time left for clinical nursing management, development, and staffing [29]. In that study, as an intervention, people assisting nursing managers were added to nursing work, thereby increasing the time available to nursing managers' staff and improving the well-being of nursing managers [29].

Referring to the results of this study, we make a few recommendations to improve the work well-being of those in management positions in social and health care. In addition to professional support from management, social

relationships, work-related factors (e.g., time pressures), and organizational practices, workplaces should discuss more openly how to support the individual factors that contribute to work well-being. For example, the ability to manage one's time, delegate responsibilities, ask for help [16], and manage stress [30] could be useful. Organizations need to ensure that the demands placed on managers are reasonable and that these managers have the power to influence these demands [3]. It has been suggested that organizations should periodically assess managers' workloads and the support they receive [3], which would be a systematic approach to assessing the situation. When doing so, we recommend the use of the authors' health-care and social managers' work well-being questionnaire to enable an overall understanding of their work well-being.

All individuals in leading positions should consider the relationship between work and leisure and the implementation of lifestyles that support their health [16]. In addition, organizations should consider the ways in which employers can support their employees as they cope with the personal life challenges that affect their overall well-being. It is necessary to think more clearly than before about employees and their well-being as a whole [27]. Maintaining and developing one's own work well-being helps managers who are working in demanding roles to continue to meet the challenges that they have faced and the ones they will face in social and health care.

Limitations of the study

This study has several limitations. The sample size was rather small; therefore, generalizations based on the findings should be made with caution. The response rate of the study was 53%. The reasons for nonresponse may include the way in which the survey was organized (online questionnaire and no direct contact with the research team), as well as timing issues and busy work schedules. The results of the study should be taken with reservation,

as the study participants ($N = 281$) account for only a small section of the Finnish health-care and social managers. For the most part, the respondents were from the health-care field, which may weaken the generalizability of the results to social care. The study was conducted in Finland; therefore, the study and instrument were characterized based on aspects of the Finnish health-care and social service system. The questionnaire is suitable for other countries when these aspects are noted. Depending on the country concerned, there might be need to remove or reformulate, for example, the questions concerning political decision makers.

CONCLUSIONS

The authors introduced the *Health Care and Social Managers Work Well-Being Questionnaire* in this study. The questionnaire is based on the authors' health-care and social managers' work well-being 5-pronged framework (individual factors, social factors, professional support from one's own manager, organizational factors, and work-related factors). It is suitable for use as a measure of work well-being in the social- and health-care context and offers a holistic view of health-care and social managers' work well-being. The questionnaire can be used both personally as a tool for assessing and developing one's own work well-being or in an organization that is seeking to develop the work well-being of its health-care and social managers. Using the questionnaire, the differences between the groups can be examined in more detail. In the future, the questionnaire should be further developed and summarized. When examining health-care and social managers work well-being, the authors' questionnaire can be used in addition to other, for example, purely psychosocial questionnaires. According to the results of a survey, years of experience as a manager, level of management, and professional group were connected to health-care and social managers' work well-being in different categories. In order to further develop health care and social managers' work well-being in the future, it is important to ascertain how these background factors together affect their work well-being.

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