Received: 4 March 2022 | Revised: 13 May 2022 | Accepted: 9 June 2022

DOI: 10.1111/jonm.13707

ORIGINAL ARTICLE

WILEY

A cross sectional study of nurses' perceptions of nurse leaders' internal crisis communication during the COVID-19 pandemic

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Abstract

Aim: The aim of this study is to describe nurse perceptions of nurse leaders' internal crisis communication during the COVID-19 pandemic.

Background: Internal communication is a vital part of nurse leaders' work, even more so during crises such as the COVID-19 pandemic.

Method: This is a cross-sectional study design. The data were collected from 204 Finnish nurses in February 2021. A questionnaire developed in this study consisted of 29 items measuring internal crisis communication and seven demographic variables. The relationships between the variables were examined with cross-tabulation, a chi-squared test and non-parametric tests. Factor structure was evaluated with exploratory factor analysis and reliability with Cronbach's alpha.

Results: Nurses perceived the *timeliness* of communication highest and *interaction* the lowest. Nurses from intensive care, acute care and operative rooms gave highest evaluations for the *content* of communication and *timeliness*. Nurses working with COVID-19 patients daily or weekly evaluated the highest level of *false communication*.

Conclusion: Nurse leaders' internal crisis communication was timely, especially in the most critical units dealing with the pandemic. The study highlighted the importance of considering a unit's special needs for internal crisis communication. Interaction between nurse leaders and nursing staff during periods of crisis needs improvement.

Implications for Nursing Management: Nurse leaders' successful and emphatic communication is important in supporting nurses in managing a crisis.

KEYWORDS
COVID-19 pandemic, internal crisis communication, nurse, nursing leadership, questionnaire

1 | BACKGROUND

The COVID-19 pandemic has created unique demands and new concerns for crisis management and crisis communication in the health care sector (Coombs, 2020). A 'crisis' can be defined as a sudden and unexpected event that causes human, material and economic or environmental losses that disrupt and exceed the community's or society's ability to cope. An organisational crisis can be defined as an emergency condition which affects stakeholders and causes instability in the organisation (Buama, 2019). However, no universally accepted definition of a crisis exists (Coombs & Holladay, 2010).

Crisis management is a process of dealing with a threat to an organisation's efficiency, the lives of its employees and the image of the organisation among its various stakeholders (Buama, 2019). It can be divided into three phases: pre-crisis, crisis and post-crisis. The pre-crisis phase includes planning, preparing and managing expectations of future crises. The crisis phase is the actual real-time response to a crisis event as it unfolds. The post-crisis phase concentrates on learning from the crisis (Coombs & Holladay, 2010). This three-stage model has been criticized—perhaps with some justification—for giving a simplified view of a crisis, but it can still be useful in considering the scope of crisis communication (Coombs & Holladay, 2010; Heide & Simonsson, 2014).

According to Coombs and Holladay (2010), communication is a critical element in effective crisis management: It can be defined as gathering, processing and then sharing required information with others. The pre-crisis phase concentrates on reducing risks and identifying potential crises. During the actual crisis phase, how and what an organisation communicates has significant effects on the outcomes of a crisis. Post-crisis communication focuses on managing the longer-term effects of the crisis (Buama, 2019; Coombs & Holladay, 2010).

The goal of internal crisis communication is to provide accurate, timely and clear information and thus avoid potentially damaging rumours and inaccuracies (Buama, 2019). This can be difficult because when an organisation faces a crisis, employees' need for information increases dramatically (Coombs & Holladay, 2010; Heide & Simonsson, 2014). Internal crisis communication is at the same time a prerequisite for crisis management and an opportunity for preventing future crises and learning from those which do occur. In short, then, during a crisis, employees need accurate information, clearly communicated, to help them make sense of a situation and ensure that they know how to act appropriately. Yet internal crisis communication is often ignored in spite of its importance, and it is certainly an under-researched topic—a wider understanding of internal crisis communication is much needed (Heide & Simonsson, 2021).

A complex crisis such as the current pandemic poses new demands for leadership and makes internal crisis communication one of the most important tasks of organisations (Heide & Simonsson, 2021). Two years after discovering the COVID-19 virus, the ensuing crisis phase of the pandemic is still going on: From the end of December 2020 to the beginning of 2022, there were almost 298 million cases of COVID-19, including more than 5 million deaths. At the beginning of 2022, there has been more than 300,000 COVID-19 cases in Finland and more than 1,600 deaths; the numbers are constantly growing (WHO, 2022).

The COVID-19 pandemic has severely tested the capacity of health care services worldwide: Finland is no exception. Finnish health care professionals have worked under severe pressure and faced unpredictable challenges throughout. According to Mattila et al. (2021), 17% of nurses in two Finnish hospitals have been transferred to work in another clinical unit because of the pandemic. More than one in five nurses have reported feeling that their workload has increased during the pandemic. In addition, COVID-19 has increased anxiety symptoms and work-related stress among Finnish hospital workers (Mattila et al., 2021).

Administrative staff have been encouraged to work from home to maintain physical distance (Mattila et al., 2021), and it has challenged supporting staff. The importance of effective communication as a means to help and motivate employees and to manage chronic uncertainty has been highlighted like never before (Li et al., 2021).

1.1 | Nurse leaders' communication during the COVID-19 pandemic

Nurses are at the sharp end of the pandemic, and nurse leaders have been handling uncertainty and learning from their experiences to help manage crisis events in the future (Bergeron et al., 2006; Catania et al., 2021). In studies focusing on nursing leadership in the COVID-19 pandemic, the importance of effective communication has been widely recognized (Catania et al., 2021; Digby et al., 2021; Kagan et al., 2021; Lake et al., 2021; Lord et al., 2021; Simonovich et al., 2021). Communication is described as nurse leaders' most vital tool and core responsibility (Lake et al., 2021); indeed, one study found that leadership communication is the *only* predictor of a nurse's willingness to care during the COVID-19 pandemic (Lord et al., 2021). Nurse leaders' interaction throughout this difficult period has been very meaningful to nurses (Digby et al., 2021; González-Gil et al., 2021; Lord et al., 2021; Ness et al., 2021; Simonovich et al., 2021; Zorn et al., 2021). Listening to nurses (Digby et al., 2021; Lord et al., 2021; Ness et al., 2021; Simonovich et al., 2021; Zorn et al., 2021) and showing respect (Digby et al., 2021; Simonovich et al., 2021) and support (Catania et al., 2021; Ness et al., 2021; Simonovich et al., 2021; Zorn et al., 2021) are also essential.

Being a source of accepted truth(s) during a crisis event is another important function for leaders; their communication skills are crucial in this respect. Constantly updated and clear information relayed through different communication channels has been important to nursing staff trying to navigate the uncertain environment which the COVID-19 pandemic has created (Zorn et al., 2021). Previous research has revealed that lack of communication and constantly changing and unclear information increased the fear, anxiety, stress and distress experienced by nurses (Catania et al., 2021; Crowe et al., 2021; González-Gil et al., 2021; Kagan et al., 2021; Lake et al., 2021; Ness et al., 2021). Lake et al. (2021) found that transparent, timely and effective communication tended to decrease nurses' moral distress

and improve poor mental health symptoms. Transparency and reliability of communication were key elements in managing fear and uncertainty (Lake et al., 2021). Supportive communication from nurse leaders developed trust and togetherness (Freysteinson et al., 2021; Simonovich et al., 2021).

The COVID-19 pandemic has vividly demonstrated the importance of effective crisis communication. An effective communication strategy is essential in providing high-quality patient care and to support optimal nurse performance during a crisis event (Catania et al., 2021; Digby et al., 2021; Lord et al., 2021; Ness et al., 2021; Zorn et al., 2021). It is important to examine and develop an organisation's crisis communication procedures and policies, including leadership crisis communication, in order to better deal with future health emergencies (Catania et al., 2021; Simonovich et al., 2021). In this study, the term 'nurse leaders' can mean chief nurse officers, nurse directors, nurse managers, head nurses and ward sisters.

2 | METHODS

2.1 | The aim of the study

The aim of this study is to describe nurse perceptions of nurse leaders' internal crisis communication during the COVID-19 pandemic.

2.2 | Design

This is a cross-sectional study design.

2.3 | Instrument

The questionnaire for this study was developed based on relevant literature. The literature search was conducted in January 2021. The assistance of an information specialist was sought over the connected issues of the search terms, inclusion criteria and databases. The search terms settled on were *crisis**, *leader**, *manag**, *communication* and *nurs**. The search was conducted in the CINAHL, PubMed and Scopus databases. Inclusion criteria included studies about nurse leaders' internal communication, peer-reviewed scholarly journals and studies published in English between 2003 and 2021.

In all, seven research articles fulfilled the inclusion criteria (Bergeron et al., 2006; Digby et al., 2021; González-Gil et al., 2021; Halcomb et al., 2020; Lau & Chan, 2005; Tseng et al., 2005; Zhuravsky, 2015) (Figure S1). Each article was evaluated using the Joanna Briggs Institute's Critical Appraisal Tools. The quality of all of the included articles was evaluated to be good.

Based on close content analysis of the seven articles, the themes of the nurse leaders' internal crisis communication were revealed. The questionnaire itself was based on the results of the content analysis and consisted of 29 items (Table S2). Respondents perceived internal crisis communication using a 5-point Likert scale: 1 = *Strongly disagree*; 2 = *Disagree*; 3 = *Neither agree nor disagree*; 4 = *Agree*; 5 = *Strongly agree*. The questionnaire had the following seven demographic variables: age, gender, profession, employer, working unit, contact with COVID-19 patients and communication channels where respondents had got information about COVID-19.

The questionnaire was pre-tested by nurses ($n = 10$). Pre-testing revealed that the questionnaire was comprehensible, logical and grammatically correct: Consequently, no changes were made.

2.4 | Data collection

The data were collected from 204 Finnish nurses working in the public and private sectors in February 2021 with a developed questionnaire. The online self-report questionnaire link was distributed via the social media used by Finland's professional nursing communities.

2.5 | Data analysis

Percentages, frequencies, means and standard deviations were calculated for all items. The relationships between demographic variables and single items were examined with cross-tabulation and a chi-squared test. For the chi-squared test, the 5-point Likert scale was recategorized to three categories. *Strongly agree* (5) and *Agree* (4) were combined into one category as *Agree* (3), and *Strongly disagree* (1) and *Disagree* (2) were combined into *Disagree* (2); *Neither agree nor disagree* formed *Neither* (3), and part of the demographic variables was recategorized so that the conditions of using the chi-squared test were filled. Others from gender ($n = 1$), non-profit sector from occupational group ($n = 1$) and open answers from occupational group ($n = 4$) were deleted.

The information provided by the items was summarized by using exploratory factor analysis (EFA) (Watson & Thompson, 2006). The Bartlett sphericity test ($p < .0001$) and the Kaiser-Meyer-Olkin measure were used (.941) to ensure that the assumptions associated with EFA. Significance was set at the $p < .05$ level (Rattray & Jones, 2007). The communalities that explain variance of the items using the factors ranged from .344 to .747 (Watson & Thompson, 2006). All items' loadings were more than .3 and considered significant. Four factors accounted for 65% of total variation. Internal crisis communication was divided into four sub-areas based on the results of EFA: *interaction*, *contents*, *timeliness* and *false communication*. *Interaction* refers to the acts of communicating between nurse leaders and nursing staff. *Content* refers to the information that is expressed through communication. *Timeliness* refers to communication occurring at an opportune time. *False communication* refers to rumours or misinformation occurring in the organisational communication. Construction of the sub-areas, factor items' loadings and Cronbach's alpha values are presented in Table 1.

For further analysis mean scores of sub-areas were calculated. The relationships between demographic variables and mean scores of sub-areas were examined with non-parametric tests (a Mann–Whitney *U* test and a Kruskall–Wallis *H* test) and

TABLE 1 Construct of the factors, items loadings, and Cronbachs alpha values

Factor/item	Loadings	Cronbach's alpha
1. Interaction		**.931**
Nurse leaders have shown support to the nurses	.789	
Nurse leaders were open to nurses' views	.783	
Nurse leaders have listened to nurses	.765	
Nurse leaders have shown empathy to the nurses	.764	
Nurse leaders have shown respect to the nurses	.738	
Nurse leaders' internal crisis communication has increased the feeling of togetherness in the work community	.709	
Nurse leaders' internal crisis communication has maintained a positive ambiance	.683	
Nurse leaders' internal crisis communication has decreased stress caused by the COVID-19 pandemic	.587	
Nurse leaders' internal crisis communication has decreased fears caused by the COVID-19 pandemic	.565	
Nurse leaders' internal crisis communication has been two-way between leaders and nurses	.527	
2. Content		**.941**
Nurse leaders' internal crisis communication has been unequivocal	.777	
Nurse leaders' internal crisis communication has been clear	.773	
Nurse leaders' internal crisis communication has been of high quality	.716	
Nurse leaders' internal crisis communication of COVID-19 has been practical	.706	
Nurse leaders' internal crisis communication has been logical	.649	
The communication channels used by the nurse leaders have been logical	.640	
Nurse leaders' communication of COVID-19 has been easy to find	.635	
Nurse leaders' internal crisis communication has been effective	.622	
Information from nurse leaders has been easy to manage	.596	
Nurse leaders' internal crisis communication has inspired trust	.542	
Nurse leaders' have been calm in communication situations	.479	
Nurse leaders' communication of the COVID-19 pandemic has been based on facts	.464	
Nurse leaders have communicated openly	.433	
3. Timeliness		**.878**
Nurse leaders' internal crisis communication has been regular	.737	
Nurse leaders have communicated quickly	.694	
Nurse leaders' internal crisis communication has been updated	.634	
Nurse leaders have communicated daily	.587	
4. False communication		**.837**
There has been misinformation in the organisation during the COVID-19 pandemic	.723	
There have been rumours in the organisation during the COVID-19 pandemic	.722	

Bonferroni-adjusted post hoc tests (Rattray & Jones, 2007). Cronbach's alpha coefficient for the overall questionnaire was .957. Cronbach's coefficient for the sub-areas ranged from .837–.941 (Rattray & Jones, 2007).

Analyses were performed with the statistical software SPSS for Mac (version 27.0, IBM Corporation, Armonk, NY).

2.6 | Ethical considerations

According to Finnish guidelines, this study did not require ethical permission, as it was a questionnaire study for nursing staff, involving no patients, causing no harm and not intervening in the physical integrity of a person (Finnish National Board on Research Integrity [TENK], 2019). A fact sheet provided information about the study and the voluntary nature of the research and a clear statement that the data would be analysed anonymously. The respondents were asked to sign an electronic consent form before filling in the questionnaire (European Commission, 2021).

3 | RESULTS

3.1 | Nurse demographics

Altogether, 204 nurses completed the questionnaire. Most respondents were female (93.5%) and registered nurses (72.5%); their average age was 37.4 years (SD 10.1). Most of nurses, 82.6%, worked in

TABLE 2 Nurses perceptions of the nurse leaders internal crisis communication (*n*, %, mean and SD)

	Strongly disagree *n* (%)	Disagree *n* (%)	Neither agree nor disagree *n* (%)	Agree *n* (%)	Strongly agree *n* (%)	Mean	SD
Interaction						**2.168**	**.843**
Nurse leaders' internal crisis communication has decreased fears caused by the COVID-19 pandemic	41 (20.1)	72 (35.3)	60 (29.4)	23 (11.3)	8 (3.9)	2.436	1.056
Nurse leaders' internal crisis communication has been two-way between leaders and nurses	53 (26.0)	67 (32.8)	40 (19.6)	35 (17.2)	9 (4.4)	2.411	1.173
Nurse leaders have shown respect to the nurses	70 (34.3)	70 (34.3)	31 (15.2)	28 (13.7)	5 (2.5)	2.157	1.116
Nurse leaders have listened to nurses	69 (33.8)	75 (36.8)	26 (12.7)	28 (13.7)	6 (2.9)	2.152	1.124
Nurse leaders' internal crisis communication has maintained a positive ambiance	61 (29.9)	73 (35.8)	51 (25.0)	16 (7.8)	3 (1.5)	2.152	0.989
Nurse leaders were open to nurses' views	64 (31.4)	81 (39.7)	29 (14.2)	24 (11.8)	6 (2.9)	2.152	1.084
Nurse leaders have shown support to the nurses	71 (34.8)	72 (35.3)	33 (16.2)	23 (11.3)	5 (2.5)	2.113	1.084
Nurse leaders' internal crisis communication has decreased stress caused by the COVID-19 pandemic	70 (34.3)	71 (34.8)	42 (20.6)	15 (7.4)	6 (2.9)	2.098	1.050
Nurse leaders' internal crisis communication has increased the feeling of togetherness in the work community	74 (36.3)	72 (35.3)	41 (20.1)	14 (6.9)	3 (1.5)	2.012	0.987
Nurse leaders have shown empathy to the nurses	83 (40.7)	67 (32.8)	34 (16.7)	15 (7.4)	5 (2.5)	1.980	1.046
Content						**2.807**	**.843**
Nurse leaders' internal crisis communication of the COVID-19 pandemic has been based on facts	4 (2.0)	14 (6.9)	42 (20.6)	107 (52.5)	36 (17.6)	3.755	0.925
Nurse leaders have keeping calm in communication situations	20 (9.8)	41 (20.1)	43 (21.1)	84 (41.2)	16 (7.8)	3.172	1.138
The communication channels used by the nurse leaders have been logical	28 (13.7)	39 (19.1)	41 (20.1)	85 (41.7)	11 (5.4)	3.059	1.173
Nurse leaders have communicated openly	24 (11.8)	57 (27.9)	52 (25.5)	54 (26.5)	17 (8.3)	2.912	1.161
Nurse leaders' communication of COVID-19 has been easy to find	27 (13.2)	62 (30.4)	35 (17.2)	64 (31.4)	16 (7.8)	2.902	1.208
Nurse leaders' internal crisis communication of COVID-19 has been practical	27 (13.2)	65 (31.9)	60 (29.4)	48 (23.5)	4 (2.0)	2.691	1.035
Nurse leaders' internal crisis communication has been logical	32 (15.7)	66 (32.4)	44 (21.6)	55 (27.0)	7 (3.4)	2.701	1.129
Nurse leaders' internal crisis communication has been clear	32 (15.7)	73 (35.8)	40 (19.6)	51 (25.0)	8 (3.9)	2.657	1.132
Nurse leaders' internal crisis communication has been effective	31 (15.2)	68 (33.3)	54 (26.5)	46 (22.5)	5 (2.5)	2.637	1.067
Nurse leaders' internal crisis communication has inspired trust	38 (18.6)	64 (31.4)	51 (25.0)	41 (20.1)	9 (4.4)	2.589	1.148
Nurse leaders' internal crisis communication has been of high quality	34 (16.7)	69 (33.8)	55 (27.0)	39 (19.1)	7 (3.4)	2.589	1.081
Nurse leaders' internal crisis communication has been unequivocal	33 (16.2)	80 (39.2)	46 (22.5)	41 (20.1)	4 (2.0)	2.524	1.048

(Continues)

TABLE 2 (Continued)

	Strongly disagree *n* (%)	Disagree *n* (%)	Neither agree nor disagree *n* (%)	Agree *n* (%)	Strongly agree *n* (%)	Mean	SD
Information from nurse leaders has been easy to manage	49 (24.0)	79 (38.7)	45 (22.1)	28 (13.7)	3 (1.5)	2.299	1.026
Timeliness						**2.917**	**1.028**
Nurse leaders' internal crisis communication has been regular	13 (6.4)	41 (20.1)	40 (19.6)	76 (37.3)	34 (16.7)	3.378	1.167
Nurse leaders' internal crisis communication has been updated	18 (8.8)	43 (21.1)	59 (28.9)	66 (32.4)	18 (8.8)	3.113	1.111
Nurse leaders' communicated quickly	32 (15.7)	51 (25.0)	49 (24.0)	53 (26.0)	19 (9.3)	2.882	1.226
Nurse leaders have communicated daily	76 (37.3)	53 (26.0)	26 (12.7)	37 (18.1)	12 (5.9)	2.294	1.295
False communication						**2.734**	**1.205**
There has not been misinformation in the organisation during the COVID-19 pandemic	32 (15.7)	76 (37.3)	31 (15.2)	39 (19.1)	26 (12.7)	2.760	1.285
There have not been rumours in the organisation during the COVID-19 pandemic	58 (28.4)	78 (38.2)	20 (9.8)	24 (11.8)	23 (11.3)	2.389	1.318

public sector. Nearly one third (30.9%) worked in emergency medical outpatient care or primary care, 20.1% inpatient ward, 17.2% intensive care, acute care or operating room, 13.7% long-term care, 9.3% clinic or appointment and 8.8% outpatient care units. A total of 32% of respondents had never been in contact with COVID-19 patients, 29.1% few times a year, a few times a month 17.7% and 21.2% daily or weekly.

Most respondents had received information about COVID-19 by email (88.2%), intranet (80.4%), newsletter (72.1%) and through an info or briefing event (51.5%), meeting (42.4%), memo (32.8%), social media (18.1%) and from other source (4.9%).

3.2 | Nurse leaders' internal crisis communication

The mean score for nurse leaders' internal crisis communication was 2.616 (SD .757) (range 1–5). The sub-area with highest mean score was *timeliness* of nurse leaders' internal crisis communication (mean 2.916 and SD 1.208) and lowest was for *interaction* (mean 2.168 and SD .843). Table 2 describes the results of individual items.

Statistically significant differences between demographic variables and individual variables are reported below. Practical nurses (86%) agreed more than registered nurses (69%) that nurse leaders did not show empathy, and they agreed more (77%) than registered nurses (57%) that nurse leaders' communication had not taken place daily. Registered nurses agreed slightly more (39%) with regularity compared to practical nurses (29%). Registered nurses agreed slightly more with rumours (69%) than practical nurses (61%), and they agreed more with misinformation (54%) than practical nurses (50%). Also, registered nurses agreed more with fact-based communication (76%) compared to practical nurses (56%). Nurses aged 41–50 years agreed more with fact-based communication (82%); the most disagreement was found in nurses older than 50 years (62%) (Table 3).

Nurses from the public sector (25%) agreed clearly more than nurses from the private sector (4%) that nurse leaders' communication was ambiguous. The nurses that found the communication most unambiguous worked in intensive care, acute care and operating rooms (31%) whereas nurses from clinics and appointments disagreed most (11%). Nurses from clinics and appointments agreed most with fact-based communication (40%); nurses in long-term care disagreed most (22%). Nurses from intensive care, acute care and operating rooms agreed most with the clarity of nurse leaders' communication (43%); nurses from clinics and appointments disagreed most (14%), and they agreed most with the regularity of communication (77%); nurses from emergency care (43%) disagreed most. Also, nurses in intensive care, acute care and operating rooms agreed clearly more (40%) that nurse leaders' communication had taken place daily; nurses from clinics and appointments disagreed most (11%). Nurses working in intensive care, acute care and operating rooms agreed most with the effectiveness of communication (34%); nurses from clinics and appointments disagreed most (21%) (Table 3).

Nurses from emergency agreed most that there have been rumours at their workplace (84%), and nurses from outpatient care units disagreed the most (41%). Nurses who were in contact with COVID-19 patients daily or weekly agreed more with rumours (81%) than nurses who had never been in contact with COVID-19 patients (52%). Women agreed slightly more with misinformation (54%) than men (46%) (Table 3).

3.3 | Relationships between nurses' demographic variables and nurse leaders' internal crisis communication sub-areas

The working unit and contact with COVID-19 patients were significantly associated with nurses' perceptions of the nurse leaders'

TABLE 3 Statistically significant results of chi-squared tests

	Nurse leaders' communication of the COVID-19 pandemic has been based on facts	Nurse leaders' internal crisis communication has been effective	Nurse leaders' internal crisis communication has been clear	Nurse leaders' internal crisis communication has been regular	Nurse leaders have communicated daily	Nurse leaders' internal crisis communication has been unequivocal	Nurse leaders have listened to nurses	Nurse leaders have shown empathy to the nurses	There has been misinformation in the organisation during the COVID-19 pandemic	There have been rumours in the organisation during the COVID-19 pandemic
Age	**.028**	.185	.114	.141	.510	.344	.308[a]	.623	.986	.218
Gender	1.000[a]	.572[a]	.601[a]	.138[a]	.835[a]	.632[a]	1.000[a]	1.000	.019[a]	.114[a]
Occupational group	**.013**	.258	.993	**.022**	**.040**	.932	.946	**.044**	**.010**	**.022**
Employer	.130	.560	.691	.284	.413	**.035**	.551[a]	.698[a]	.583[a]	.155[a]
Working unit	.027[a]	**.027**	**.019**	.018[a]	**.038**[a]	.070[a]	.668[a]	.373[a]	.252[a]	.020[a]
Contact with COVID-19 patients	.125	.315	.917	.638	.568	.984	.702	.095	.230	**.048**

Note: Chi-squared test unless otherwise noted. Statistically significant ($p = <.05$) results bolded.
[a]Fisher exact test used.

internal crisis communication. A post hoc test showed that nurses from intensive care, acute care and operating room gave the higher perceptions for the content (mean 3.14) than the nurses from long-term care (mean 2.52) ($p = .028$). Also, nurses from intensive care, acute care and operating room gave the higher perceptions for the timeliness (mean 3.35) than the nurses from emergency medical out-patient care or primary care (mean 2.53) ($p = .043$) and the nurses from long-term care (mean 2.66) ($p = .046$). Nurses working with COVID-19 patients daily or weekly (mean 2.25) perceived a higher level of false communication (mean 2.25) than nurses who had never been contact with COVID-19 patients (mean 2.90; $p = .028$) (Table 4).

4 | DISCUSSION

Based on the questionnaire development, it was found that nurse leaders' internal crisis communication consisted of four sub-areas: *interaction*, *content*, *timeliness* and *false communication*. This study revealed that there has been significant variance in nurse leaders' internal crisis communication during the COVID-19 pandemic.

The *timeliness* of nurse leaders' internal crisis communication was found to be the highest perceived sub-area by nurses. Timeliness in general has been recognized as a critical element of internal crisis communication by other scholars (Lake et al., 2021; Lord et al., 2021). Regular communications from their leaders reassured nurses and was needed to decrease the anxieties caused by the crisis (Digby et al., 2021).

The most satisfied with *timeliness* and *content* were nurses in intensive care, acute care and the operating room. A potential explanation for this result is that working in the forefront of the COVID-19 pandemic has placed special importance on communication and nurse leaders have taken the resulting demands that have been placed on them well into account. Altogether, it is a significant result, because timely communication has been seen as the only predictor of intensive care nurse willingness to provide care during the COVID-19 pandemic (Lord et al., 2021).

Nurses in intensive care, acute care and the operating room considered nurse leaders' communication the most effective. The lowest perceptions for *timeliness* were given by nurses from emergency medical out-patient care or primary care. A different image of the job, the greater physical distance from nurse leaders and general limitations placed on interpersonal communication by the pandemic may explain these lower perceptions. This explanation is supported by Kagan et al.'s study (2021), which revealed that nurse leaders have felt difficulties leading and communicating to and with staff through screens during the pandemic.

Interaction was the lowest perceived sub-area in this study. Previous studies have shown that nurses have longed to be heard, supported and appreciated by their nurse leaders (Lord et al., 2021; Ness et al., 2021; Simonovich et al., 2021). The emotional support provided by nurse leaders has been shown to improve nurses' coping skills and reliance; it has also helped to develop mutual trust and commitment during the crisis (Digby et al., 2021; Simonovich et al., 2021). This

TABLE 4 Relationships between demographic variables and the subareas and full measuring instrument of internal crisis communication (mean, SD and *P*)

Demographic variable	*n* (204)	% (100)	Interaction Mean (SD) *P*	Content Mean (SD) *P*	Timeliness Mean (SD) *P*	False communication Mean (SD) *P*	Internal crisis communication Mean (SD) *P*
Gender	199	100.0					
Male	13	6.5	1.85 (1.00)	2.71 (.85)	2.67 (2.67)	2.92 (1.54)	2.54 (.90)
Female	186	93.5	2.19 (.82)	2.80 (.85)	2.94 (1.01)	2.56 (1.19)	2.62 (.75)
			.060	.744	.430	.445	.589
Age	204	100.0					
<30	66	32.4	2.09 (.79)	2.73 (.82)	2.75 (1.04)	2.41 (1.06)	2.50 (.72)
31–40	61	29.9	2.20 (.80)	2.86 (.85)	3.03 (.90)	2.73 (1.32)	2.70 (.75)
41–50	51	25.0	2.17 (.93)	2.92 (.87)	3.07 (1.10)	2.43 (1.10)	2.65 (.79)
>50	26	12.7	2.28 (.92)	2.66 (.83)	2.76 (1.40)	2.90 (1.39)	2.65 (.81)
			.781	.382	.169	.410	.455
Occupational group	200	100.0					
Practical nurse	52	26.0	2.03 (.84)	2.70 (.96)	2.69 (1.10)	2.75 (1.36)	2.54 (.85)
Registered nurses	148	74.0	2.21 (.85)	2.84 (.80)	3.01 (1.00)	2.51 (1.15)	2.64 (.73)
			.130	.348	.072	.313	.423
Employer	202	100.0					
Public sector	175	86.7	2.19 (.86)	2.84 (.84)	2.95 (1.01)	2.51 (1.18)	2.62 (.75)
Private sector	27	13.3	2.07 (.78)	2.62 (.88)	2.78 (1.17)	3.00 (1.35)	2.61 (.80)
			.567	.203	.405	.080	.979
Working unit	204	100.0					
Intensive care, acute care or operating room	35	17.2	2.30 (.96)	3.14 (.80)	3.35 (.96)	2.36 (.99)	2.79 (.73)
Emergency medical outpatient care or primary care	19	30.9	1.97 (.99)	2.60 (.80)	2.51 (1.02)	2.29 (1.08)	2.34 (.75)
Inpatient ward	63	20.1	2.38 (.82)	2.91 (.83)	3.12 (.96)	2.62 (1.22)	2.76 (.77)
Long-term care	41	13.7	1.93 (.68)	2.52 (.94)	2.67 (1.14)	2.72 (1.42)	2.45 (.78)
Clinic or appointment	28	9.3	2.08 (.82)	2.66 (.62)	2.62 (.80)	2.59 (1.27)	2.49 (.62)
Outpatient care units	18	8.8	2.05 (.73)	2.87 (.86)	2.80 (1.10)	2.75 (1.05)	2.61 (.78)
			.052	.017*	.003*	.722	.083

(Continues)

TABLE 4 (Continued)

Demographic variable	*n* (204)	% (100)	Interaction Mean (SD) *P*	Content Mean (SD) *P*	Timeliness Mean (SD) *P*	False communication Mean (SD) *P*	Internal crisis communication Mean (SD) *P*
Contact with COVID-19 patients	203	100.0					
Daily or weekly	43	32.0	2.24 (.96)	2.76 (.87)	2.70 (.98)	2.25 (1.06)	2.50 (.76)
A few times a month	36	29.1	2.05 (.81)	2.88 (.86)	3.11 (1.07)	2.47 (1.13)	2.62 (.73)
A few times a year	59	21.2	2.20 (.84)	2.81 (.76)	2.94 (1.00)	2.51 (1.27)	2.61 (.73)
Never	65	17.7	2.16 (.79)	2.80 (.88)	2.92 (1.05)	2.90 (1.23)	2.70 (.79)
			.780	.829	.433	.031*	.619

Note: Kruskall-Wallis Test used.
*Statistically significant ($p = <.05$).

study shows that practical nurses agreed more than registered nurses that nurse leaders did not show empathy. Hierarchical 'chain of command' means of communication in health care organisations can explain this result. Improved non-hierarchical communication patterns in units will increase interprofessional understanding, respect and trust (Thompson et al., 2021). It must be noted that there is a shortage of studies that examine different communication priorities, needs and expectations between registered nurses and practical nurses which also could explain such results. This study shows that nurse leaders' internal crisis communication needs more supportive and nurturing elements alongside merely presenting the facts about, for example, the latest developments. A complex crisis such as the pandemic has inevitably placed new demands on internal crisis communication. More than simply repurposing old tools and communication practices, leaders need to be more creative and flexible with their communication strategies, focusing on sense-making and listening (Heide & Simonsson, 2021).

This study has shown that there has been *false communication* in health care organisations during the pandemic: *False communication* has been described as a negative phenomenon associated with internal crisis communication failure (Bergeron et al., 2006; Tseng et al., 2005). In this study, nurses who treated COVID-19 patients daily or weekly experienced the most *false communication*, while nurses who had never treated COVID-19 patients reported experiencing this phenomena the least. One potential explanation for *false communication* is uncertainty and lack of information, especially at the beginning of the crisis; this was reported in previous recent studies that have been undertaken during the COVID-19 pandemic (Catania et al., 2021; Simonovich et al., 2021).

Summarizing this study, we may emphasize once again the important role of nurse leaders in internal crisis communication during the COVID-19 pandemic. Additionally, this study has highlighted the fact that internal crisis communication has been an important part of nurse leaders' daily work routine throughout the pandemic. Indeed, it has played a key role at all stages for nurse leaders that have managed the crisis. The COVID-19 pandemic has increased the pressure to focus on internal crisis communication (Heide & Simonsson, 2021). It is important to note that this study has shown beyond doubt that internal crisis communication has succeeded at the forefront of the pandemic battle and within the most critical units dealing with its effects.

4.1 | Strengths and limitations

This study is the first, to the best of our knowledge, to describe in detail nurse leaders' internal crisis communication. It can thus be thought of as a pilot study, one that has produced significant results and shown the need for further systematic research—for example, the further development of the questionnaire. This study produced new research data about nurse leaders' internal crisis communication. One particular strength of this study is that the data were collected *during* the pandemic crisis. Cronbach alpha tests revealed that the reliability of questionnaire was good.

The study has several limitations. The average age of the participating nurses was 37 years, which is significantly younger than the average age of Finnish nurses, which is 43 years (Finnish Institute for health and welfare, 2018). In addition, data in the collected sample were small, and therefore, the results are not generalizable to all Finnish nurses. Furthermore, only a few nurses had been in contact with COVID-19 patients.

The data were collected via a questionnaire that was distributed by using social media. Because of the open platform, it was not possible to calculate the sample size. It might be possible that all of the respondents were not included (some of the responses having gone astray), and all potential respondents were not reached. Another limitation was that the data collecting started in mid-February 2021, more than a year after the pandemic started, and some perceptions could have been inconsistent.

5 | CONCLUSIONS

This study showed that the quality of nurse leaders' internal crisis communication varies across different units. Nurse leaders' internal crisis communication was on the whole timely, especially so in the most critical units that were dealing with the effects of the pandemic. Our results highlighted the importance of considering different units' special needs for internal crisis communication. In addition, we suggest that there should be more dialogue between units so that good communication practices can be widely shared within organisations.

Interaction between nurse leaders' and nursing staff during the crisis needs more development and improvement. The study findings suggest that nurse leaders' internal crisis communication style needs more emotionally supportive elements alongside the dispassionate presentation of facts and figures.

6 | IMPLICATIONS FOR NURSING MANAGEMENT

Nurse leaders play a key role in internal crisis communication in social and health care organisations. They should be fully aware of their responsibilities in this regard. This study especially showed a demand for supportive emotional elements of communication. In addition, it is very beneficiary that nurse leaders develop their communication based on different types of units and with different professions. Especially, nurses, who do the bedside work, need to be paid more attention in communication.

Once the COVID-19 crisis is finally over, nurse leaders should be encouraged to learn from these events. This study can help nurse leaders to consider their style of internal crisis communication and honestly assess all aspects of its implementation—both good and bad.

ACKNOWLEDGEMENTS

We gratefully acknowledge the nurses who contributed to the study by completing the questionnaire.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

ETHICS STATEMENT

According to Finnish guidelines, this study did not require ethical permission, as it was a questionnaire study for nursing staff, involving no patients, causing no harm and not intervening in the physical integrity of a person.

DATA AVAILABILITY STATEMENT

Research data are not shared.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Kämäräinen, P.-M., Nurmeksela, A., & Kvist, T. (2022). A cross sectional study of nurses' perceptions of nurse leaders' internal crisis communication during the COVID-19 pandemic. *Journal of Nursing Management*, 1–11. https://doi.org/10.1111/jonm.13707