Nurses' attitudes regarding the importance of families in nursing care

a cross-sectional study

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Nurses' attitudes regarding the importance of families in nursing care: a cross-sectional study

Abstract

Aims and objectives: This study investigates attitudes towards family involvement in care among a broad sample of Danish nurses from all sectors and healthcare settings.

Background: Evidence suggests that nurses hold both supportive and less supportive attitudes about involvement of family members in the care of patients, and the existing findings are limited to specific healthcare contexts.

Design: A cross-sectional study adhering to the Strengthening the Reporting of Observational Studies in Epidemiology for reporting observational studies.

Methods: Using snowball sampling, the Families' Importance in Nursing Care-Nurses' Attitudes questionnaire was initially administered to a broad, convenience sample of Danish registered nurses through social media: Facebook interest groups and the homepage of the Danish Family Nursing Association. These nurses were encouraged to send the invitation to participate to their network of nursing colleagues. Complete datasets from 1720 nurses were available for analysis.

Results: In general, the nurses considered the family as important in patient care. Nurses who held master's and doctorate degrees scored significantly higher than nurses with a basic

nursing education. Nurses who had had experience with illness within their own families tended to score higher on the family as a conversational partner subscale than those without this experience. Nurses with the longest engagement within hospital settings scored significantly lower than those with the longest engagement within primary healthcare and/or psychiatry.

Conclusions: Families are considered important in nursing care. Younger nurses with a basic education, short-term engagement at a hospital and no experiences with illness within their own families were predictors of less supportive attitudes towards including the family in nursing care.

Relevance to clinical practice: Clinical leaders and managers should promote education on the importance of active family involvement in patient care in clinical practice and undergraduate education. More focus on collaboration with families in the hospital setting is needed.

Key words: cross-sectional; family; nurses' attitudes; questionnaire

What does this paper contribute to the wider global clinical community?

- This study demonstrates that younger nurses with a basic education, short-term engagement at a hospital and no experiences with illness within their own families hold less supportive attitudes about involvement of family members in the care of patients.
- Nurses' positive attitudes towards involvement of families in patient care might potentially lead to quality improvement in the care of ill persons.
- Education programmes containing actively involving families in patient care need to be included in basic and undergraduate education as well as in clinical practice.

Introduction

Good quality healthcare is an important element of health in terms of prevention and treatment of chronic and severe conditions. Not all forms of healthcare are, provided by nurses because more care is provided informally by family and friends (Verbakel, Tamlagsrønning, Winstone, Fjær, & Eikemo, 2017). This has a clear impact on physical and mental health among a substantial number of caregivers in most European countries (Huijts, Stornes, Eikemo, Bambra, & Consortium, 2017). The relationship between nurses and

families is central to the quality of care, and research focusing on the importance of involving family in the nursing care of patients is growing (Hagedoorn et al., 2018). Nurses' attitudes towards family involvement affect their willingness to interact with and involve families in care (Wright & Bell, 2009), and knowledge on attitudes help us to understand how nurses perceive issues and processes in care and determine what they find important (Oliveira et al., 2011; Wright & Bell, 2009).

Background

Family inclusion throughout the illness trajectory of patients suffering from severe or chronic conditions has received increased focus from European healthcare politicians and administrators (Vrangbaek, 2015), and inviting patients to give feedback on their experiences with healthcare is seen as an essential part of patient-centred care (Sandager, Sperling, Jensen, Vinter, & Knudsen, 2015). Despite a long tradition of feedback from patients on the care they receive, a recent national survey among more than 150,000 patients who had been in contact with Danish hospitals in 2018 shows that 16% of the patients did not at all or to a less degree experience that the health professionals offer their relatives opportunities to participate in decisions about their care. Also, among 4,346 patients with newly diagnosed cancer, 16% of the patients reported that healthcare professionals showed a low level of interest for the well-being of their relatives (Sandager et al., 2015). Over the past 15 years, family involvement in nursing care has received a great deal of attention but is still not the norm in Denmark. Family nursing theory is not yet mandatory in the national curriculum for undergraduate nursing education beyond the context of paediatrics. Therefore, nursing education across all levels in Denmark needs to find a way to include family nursing within both primary health care systems and hospital systems (Østergaard & Wagner, 2014). Increased patient involvement in health care have been assigned a high priority in many European countries over resent years. Through their involvement, the patients and their family's become co-producers of public service production (Vrangbaek, 2015), and involvement of the family contributes to patient safety (National Academies of Sciences, & Medicine, 2015). Furthermore, involvement can contribute to a better course of treatment because the family can help remember information and discuss decisions with the patient, the nurses and the doctors (Vrangbaek, 2015). Therefore, involvement of the family may be beneficial for the patients, but this depends on the nurses' attitude. (Wright & Bell, 2009). Nurses attitudes towards involving families in nursing care has been explored in different clinical settings such as paediatrics (Angelo et al., 2014), obstetric care (Ribeiro, Sousa,

Santos, Silva, & Sousa, 2018), primary healthcare (Oliveira et al., 2011), mental healthcare (Hsiao & Tsai, 2015), among nurses caring for patients with psychiatric diagnoses (Sveinbjarnardottir, Svavarsdottir, & Saveman, 2011), in cardiovascular care (Gusdal, Josefsson, Adolfsson, & Martin, 2017; Luttik et al., 2017), in surgical units (Blondal et al., 2014) emergency departments (Linnarsson, Benzein, & Arestedt, 2015), in critical care units (Hetland, Hickman, McAndrew, & Daly, 2017; Hetland, McAndrew, Perazzo, & Hickman, 2018) and among home care nurses and hospital employed nurses (Broekema, Luttik, Steggerda, Paans, & Roodbol, 2018). Generally, the studies found that nurses hold positive attitudes towards family involvement in care (Hsiao & Tsai, 2015; Linnarsson et al., 2015; Oliveira et al., 2011), even without special training in approaches to family inclusion (Ribeiro et al., 2018). Attending an educational course in a Family System Nursing approach increased nurses' positive attitudes, and the way they thought about family inclusion changed towards a more collaborative focus and readiness for applying a family system approach in clinical practice (Blondal et al., 2014; Broekema et al., 2018; Svavarsdottir et al., 2015; Sveinbjarnardottir et al., 2011). A work place with a general approach towards families and competences to work with families predicts the most supportive attitudes among the nurses (Blondal et al., 2014; Gusdal et al., 2017; Voltelen, Konradsen, & Østergaard, 2016). In contrast, the attitudes of older nurses who had been in the profession for many years and had no previous contact with the concept of family nursing were less supporitve of involving families in patient care (Angelo et al., 2014). Furthermore, Benzein and colleagues (Benzein, Johansson, Arestedt, & Saveman, 2008) found that predictors of less supportive attitudes concerning involving families in nursing care deals with being a newly graduated nurse, a male nurse and no general approach to the care of families at the work place.

Based on these results, it can be summarized Nurses hold both positive and less positive attitudes, about involvement of family members in the care of patients and the findings are mainly restricted to specific clinical settings. Only one large Swedish study, in which 634 nurses were surveyed, included various health care settings such as hospitals, primary health care and community care (Benzein, et al., 2008). We determined a need to further enlarge the existing knowledge base including Danish nurses' attitudes about involvement of families in the care of their family members.

Therefore, the aim of this study was to investigate Danish nurses' attitudes towards family involvement in care through the following research questions:

Research question 1: What are the variations in the scores of nurses' attitudes towards family involvement in care?

Research question 2: What factors are associated with nurses' attitudes regarding the importance of families in nursing care?
Research question 3: What is the proportion of the variation in factors predicting the importance of families in nursing care, and what is the magnitude of the statistical effect?

Methods

Design

The study was designed as a cross-sectional study adhering to the Strengthening the Reporting of Observational Studies in Epidemiology guidelines addressing articles reporting cross-sectional studies (von Elm et al., 2007); see Supplementary File 1, with a non-probability method using snowball sampling (Shaghaghi, Bhopal, & Sheikh, 2011).

Participants and data collection

The Families' Importance in Nursing Care-Nurses' Attitudes (FINC-NA) questionnaire was initially administered to a broad, convenience sample of Danish registered nurses through social media: Facebook interest groups and the homepage of the Danish Family Nursing Association (www.familiesygepleje.dk). These nurses were encouraged to send the invitation to participate to their network of nursing colleagues. Using snowball sampling through social media is cheap, fast and offers the possibility of large samples (Sadler, Lee, Lim, & Fullerton, 2010). The snowball sampling increased the representation of respondents, invitations being spread beyond those who might already be known to each other (Whitaker, Stevelink, & Fear, 2017).

Before starting the data collection, we decided to aim for more than 384 respondents, based on recommendations from (Price, 2005), which should give an acceptable 95% confidence level, assuming a 50%/50% distribution of results in a descriptive study. The data collection opened 2 October 2017 and was planned to last for a minimum of 3 months. By 18 December 2017 the number of respondents went beyond our expectations, and data collection ended. Demographic data collected included age, gender, working experience, primary working area, level of nursing education and experience with serious illness within one's own family.

Measurements

Permission to use the FINC-NA questionnaire was obtained from the original authors (Benzein, Johansson, Arestedt, Berg, & Saveman, 2008). Before releasing, the questionnaire underwent forward and backwards translation, from Swedish to Danish and back, and

subsequently the researchers met to discuss translation in order to reach a consensus agreement on the final wording (Maneesriwongul & Dixon, 2004). To explore face validity the Danish version of the questionnaire was tested for understandability among four nurses outside the study, and their answers did not lead to further revisions (Maneesriwongul & Dixon, 2004).

The Danish version of the FINC-NA questionnaire was used to assess nurses' attitudes. The instrument is based on a literature review and developed in Sweden in 2008, and later refined in 2011 (Saveman, Benzein, Engstrom, & Arestedt, 2011). It is composed of 26 items, each is scored on a 5-point Likert-scale ranging from totally disagree (1) to totally agree (5), thus giving scores ranging from 26 to 130. Higher scores indicate more supportive attitudes towards families' importance. The questionnaire is divided into four subscales: I) Family as a resource in nursing care (FAM-RNC) contains 10 items focusing on a positive attitude towards families and valuing their presence in nursing care, e.g. "the presence of family members eases my workload". The minimum score is 10 and the maximum score is 50. II) Family as a conversational partner (FAM-CP) contains eight items regarding the importance of engaging with the patient's family members and having a dialogue with them, e.g. "I ask family members to take part in discussions from the very first contact, when a patient comes into my care". The minimum score is 8 and the maximum score is 40. III) Family as a burden (Fam-B) contains four items focusing on negative statements about the family, e.g. "the presence of family members holds me back in my work". The minimum score is 4 and the maximum score is 20. IV) Family as its own resource (FAM-OR) contains four items focusing on acknowledging families as having their own resources for coping, e.g. "I encourage families to use their own resources so that they have the optimal possibilities to cope with situations by themselves". The minimum score is 4 and the maximum score is 20.

Testing of the Swedish version has shown a Cronbach's alpha for overall scale at 0.89, and from 0.71 to 0.86 for the subscales, indicating acceptable stability and internal consistency (Saveman et al., 2011). In this study, the Danish translated version showed Cronbach's alpha for the total FINC-NA scale was 0.91 and Cronbach's alpha for the four subscales was 0.85 (Fam-RNC), 0.80 (Fam-CP), 0.80 (Fam-B) and 0.65 (Fam-OR).

Analysis

Data were coded and entered into the IBM SPSS statistical program version 24. Missing values in the FINC-NA were substituted with the mean score of the computed variable on the

same scale when at least half of the items were answered (Cappelleri et al., 2014). Descriptive statistics, including median, difference between the upper quartile and lower quartile (interquartile range (IQR)), range, numbers (*n*) and percentages (%), were administered to summarise the sociodemographic characteristics of the respondents and their responses to the FINC-NA on group and item levels. For continuous data, Mann–Whitney U test was used to assess differences between nurses who completed the FINC-NA instrument and those who did not complete the instrument. Categorical variables were compared using Pearson's chi-square test. A p-value of < 0.05 was considered statistically significant.

Due to the skewed distribution of the data for educational level and healthcare organisation, these variables were dichotomised. The variables of educational level were dichotomised into "low" for basic nursing education and "high" for master's, candidate's or doctorate degrees. Variables of healthcare organisation were dichotomised into "hospital" and "other" for hospital versus primary healthcare and psychiatry. Age was dichotomised into $\leq 35/ \geq 36$ years, and years of engagement as a nurse were dichotomised into $\leq 7/\geq 8$ years.

Spearman's Rank-Order Correlation and Mann–Whitney U test for two independent samples were used to examine the associations between age, gender, education level, health organisation, experiences of illness and nurses' attitudes.

Binary Logistic regression analyses were employed to determine and report (Peng, Lee, & Ingersoll, 2002) the variables that contributed to the variation in nurses' attitudes towards families' involvement in care in the total FINC-NA scale and its subscales. One-way ANOVA and standardized mean scores were used to estimate the magnitude of the statistical effect. Benchmarks for eta squared, defined as small ($\eta 2 = 0.01$), medium ($\eta 2 = 0.06$) and large ($\eta 2 = 0.14$) effect size, were used to assess the proportion of total variance of scores (Lakens, 2013). Benchmarks for Choen's d refers to effect sizes as small ($d = 0.2$), medium ($d = 0.5$), and large ($d = 0.8$) (Lakens, 2013).

Ethical considerations

The FINC-NA questionnaire was distributed on-line, and Danish nurses participated voluntarily in the study. Anonymity was ensured as the questionnaire contained no marks, names or numbering that could identify participants. The study was registered on the record of data processing activities at the local university in accordance with applicable ethical legislation and General Data Protection Regulation. According to Danish law, there was no need for ethical approval.

Results

Sample characteristics

In total, 2177 nurses responded on the FINC-NA questionnaire. Median age was 44 (IQR 35–53, range 22–72) years, 97.1% were women and the median working experiences were 16 (IQR 6–26, range 0–54) years. Substitutions of means were added in 25 cases (1–13 items), according to the half rule criteria (Cappelleri et al., 2014). Furthermore, 457 filled-in almost all the background variables but filled-in less than half of the FINC-NA items. Thus, we ended up with complete data sets from 1720 nurses (79%). There were statistically significant differences between those who filled in a full questionnaire and those who did not regarding gender ($p = 0.032$) and experiences with seriously illness within own families ($p = 0.032$), given that there were more men and fewer respondents who had experiences with seriously illness within own families among those who did not answer the questions compared to those who filled in the questionnaire (Table 1).

Variations in Danish nurses' attitudes towards family involvement in care?

In the total FINC-NA scale, the theoretical possibilities could range from 26 to 130. We found a median score of 90 (IQR 84–97, range 34–127) for the overall sample ($n = 1720$), indicating nurses overall supportive attitude concerning family involvement. Table 2 provides information about the FINC-NA total median scores and subscale median scores.

Family as a resource in nursing care

In the Fam-RNC subscale, viewing families as a resource refers to focusing on a positive attitude towards families and valuing their presence in nursing care. The median score of the total Fam-RNC subscale was 38 (IQR 35–42, range 10–50), within a possible score range of 10–50. Most respondents (94%) agreed or strongly agreed that they gain a lot of indispensable knowledge from families which they could use in their work. Most respondents considered the presence of family members to be important for the family members themselves (86.5%) and that a good relationship with the families gives job satisfaction (85.9%). About one-third totally agreed or agreed (31.1% and 34.1%, respectively) with the statements that the presence of family members provides a feeling of security and eases workload.

Family as a conversational partner

In the Fam-CP subscale, viewing families as a conversational partner refers to focusing on the importance of engaging with the patient's family members and having a dialogue with them. The median score of the Fam-CP subscale was 28 (IQR 25–31, range 9–40), with a possible score range of 8–40. Most respondents agreed or totally agreed (71.8%) that they invite family members to speak about changes in the patient's condition, and 65.5% agreed or totally agreed that they always identify a patient's family members. Almost half of the respondents (47.1%) answered neither/nor to the item about inviting family members to speak when planning care, and 24.9% totally disagreed or disagreed with that item. Only 27.5% invited family members to actively take part in the patient's care, while 35.6% disagreed or totally disagreed with the item, while 36.9% answered neither/nor.

Family as a burden

In the Fam-B subscale, viewing families as a burden refers to focusing on negative statements about the family. The median score was 9 (IQR 7–11, range 4–19), within a possible range of 4–20. More than half of the respondents (67.8%) totally disagreed or disagreed with the statement about not having time to take care of families and that the presence of family members causes them to feel stressed (66.9%). However, almost one-third (27.8%) answered neither/nor to the statement that the presence of family members makes them feel that they were being controlled and 12.7% agreed or totally agreed with this statement.

Family as own resource

In the fam-OR subscale, viewing families as their own resource refers to focusing on acknowledging families as having their own resources for coping. The median score of the Fam-OR subscale was 15 (IQR 14–17, range 4–20), within a possible range of 4–20. Most of the respondents (85.4%) considered family members as cooperating partners and themselves as a resource (74.9%) for family members so that they could cope as well as possible with their situation. While only half (51.0%) of the respondents agreed or strongly agreed that they encourage families to use their own resources so that they have the optimal possibilities to cope with situations by themselves.

Factors associated with nurses' attitudes towards families in nursing care

When comparing scores, it was revealed that the level of scores among nurses who held master's and doctorate degrees was significantly higher than the scores among nurses with a basic nursing education. Furthermore, nurses who indicated experiences with illness within

their own families scored significantly higher on the Fam-CP subscale (p = 0.026) than those without this experience. Nurses with the longest engagement within hospital settings scored significantly lower than those with the longest engagement within primary healthcare and/or psychiatry (Table 3).

Factors for predicting nurses' attitudes towards families' importance in nursing care

The logistic regression analysis revealed that the FINC-NA total scale and the subscales Fam-CP, Fam-B and Fam-OR were independently associated with a less positive attitude among nurses with the longest engagement at a hospital. Having a higher education in addition to a basic nursing education was independently associated with a more positive attitude towards family involvement in terms of the FINC-NA total scale and its subscales. Items related to families as a conversational partner were independently associated with the less positive attitude of younger nurses (≤36 years) with short-term engagement as a nurse (≤7 years) and having no experiences with illness within their own families. Seeing families as their own resources was independently associated with the less positive attitude of younger hospital nurses with short-term engagement and a basic education. Families as a burden was more often experienced by younger nurses with a basic education and a short-term engagement at a hospital (Table 4). The magnitude of the statistical effect was small or medium ($\eta 2$ = 0.003 to 0.077; d_z = 0.1239 to 0.5978) (Table 5).

Discussion

To the best of our knowledge, this is the largest study investigating attitudes nurses towards family's importance in care. Generally, Danish nurses maintained positive attitudes towards families' importance in care. Significant variations in the sores of the respondents were, however, found for age, health organization, education and years of engagement as a nurse. Nurses aged ≤35 years who had been engaged 7 years or less at a hospital and who had no education beyond basic nursing education were less positive towards involvement of families as a conversational partner and more often perceived families as a burden. The results might reflect that these nurses feel challenged when families were present due to their workload, time constraints and their lack of family nursing competences, factors which often negatively affect nurses' motivations regarding inviting and including family perspectives in their daily clinical practice (Saveman, 2010; Wright & Leahey, 2013).

Younger hospital nurses might also be more focused on the individual patient and how to improve their own abilities and skills to act as a professional nurse within a multidisciplinary

health care system, whereas older and more experienced nurses are well equipped to involve the family in the care of the patient (Benzein, et al., 2008; Luttik et al., 2017; Tapp & Moules, 2012). Thus, more research is needed regarding development of undergraduate hospital nurses' skills and the competencies required for taking care of both patients and their families. In addition, more research is needed in order to gain in-depth insight into the influence of the roles of culture on attitudes between hospital nurses and nurses working within primary care and psychiatry. Duhamel et al. (2015) suggest a knowledge utilisation model in which nurses' beliefs and skills are linked to the experience of positive outcomes such as self-reinforcing and positive reactions from patients and their families (Duhamel, Dupuis, Turcotte, Martinez, & Goudreau, 2015). In their study, they showed that family members' and colleagues' reactions to family-focused care became an important motivational factor to continue learning. The results from our study may expand this model, as we found that more positive attitudes were significantly associated with a higher educational degree in nursing and having experienced illness within own families. This is consistent with findings from Sweden (Benzein, Johansson, Arestedt, Berg, et al., 2008), Taiwan (Hsiao & Tsai, 2015) and Iceland (Blondal et al., 2014).

Also, a 15-minute family interview has been suggested as a short and powerful intervention (Wright & Leahey, 1999) which is helpful for nurses in clinical practice (Martinez, D'Artois, & Rennick, 2007; Sveinbjarnardottir, Svavarsdottir, & Wright, 2013), and might also be a helpful approach for nurses in all areas of practice. Luttik et al. (2017) found that despite nurses viewing families as important in nursing care, attitudes towards actively inviting families to take part in patient care were less positive. In our study, approximately one in four nurses agreed or strongly agreed that they invite family members to speak when planning care, indicating that similar patterns might be present among nurses in Denmark.

Most of the participating nurses indicated that they gained a lot of valuable knowledge from families, and most of them considered family members as cooperating partners. This is in line with other studies, which find that nurses are supportive of families' involvement and view families as important in care (Gusdal et al., 2017; Luttik et al., 2017). Even though nurses considered family members as cooperating partners, only half of the nurses in our study encouraged families to use their own resources. This could possibly be related to the increasing interest in the situation of significant others, who often adopt an informal caregiver role (Benzein, Olin, & Persson, 2014) and experience stress (Persson & Benzein, 2014). Nurses can become a source of comfort that helps the family endure and try to minimize the caregiver burden, focusing on the needs and quality of life of these families (Eggenberger &

Sanders, 2016). Accordingly, interventions are needed that support both the individual patient and the family as a unit to minimize their experiences of distress and to focus on the resources within the family to support their health and well-being (Benzein et al., 2014; Persson & Benzein, 2014; Wright & Leahey, 2013).

Training and thereby developing skills in family system nursing encourages empathic understanding (Eggenberger & Sanders, 2016) and strengthens nurses' beliefs in their own skills, which motivates them to overcome family system nursing challenges in their daily clinical practice (Broekema et al., 2018; Duhamel et al., 2015). Training and implementation strategies are important in order to disseminate family-focused practice into clinical settings (Svavarsdottir, Sigurdardottir, Konradsdottir, & Tryggvadottir, 2018), although nurses feel challenged when they must work differently than they are used to (Voltelen et al., 2016). Our findings show a significant correlation between nurses' educational level and the variable considering family as a conversational partner, which supports the benefit of post-graduate education. Training might therefore be helpful to nurses who want to involve families in care but needs feasible and practical suggestions for action in clinical practice, as suggested in studies from Iceland (Svavarsdottir et al., 2015; Sveinbjarnardottir et al., 2011).

A positive attitude was also significantly associated with nurses' experiences of illness in their own families, which is consistent with finding among nurses working in emergency departments (Linnarsson et al., 2015). This could indicate that nurses' ability to engage with families is very much predicted by their own life experiences and beliefs. This observation can be used proactively during their training by making the individual nurse aware of how their own experiences affect their actions (Wright & Bell, 2009).

In our study, hospital nurses had lower scores than nurses in primary healthcare and/or psychiatry. This is in line with Gusdal et al. (2017), who found that working in a primary health- care centre was predictive of the most supportive attitudes for family involvement. Nevertheless, there is an increasing request for family involvement as the care changes to more outpatient settings (Andersen, Nielsen, Danbjorg, Moller, & Brochstedt Dieperink, 2019).

Strength & limitations

The strength of this study is the large sample size. The use of social media as recruitment in research was found to be feasible. The use of social media is becoming more common in research, even though there are some unavoidable limitations such as not being able to control whether respondents answered the questionnaire more than once. It has been argued

that even though findings may be biased, the large sample sizes which are possible to obtain through social media ensures that statistical relationships between the variables of interest can still be reliable (Brickman Bhutta, 2012).

Furthermore, some nurses may not have the possibility to answer because they do not use Facebook, which was the most used media in this study. However, the use of social media is being more and more accepted in research (Whitaker et al., 2017) as well as in recruiting participants in randomized controlled trial (Akers & Gordon, 2018).

Recruiting of participants was not controlled for or done in a systematic way; it is however remarkable that the proportion of men and nurses without experiences with illness within their own families were higher among non-completers than completers. Benzein et al. (2008) found that male nurses and nurses without experiences with illness within their own families seem to be less positive towards involvement of families in the care. Therefore, they might not be interested in filling in the FINC-NA questionnaire.

In the Danish version of the FINC-NA, Cronbach's alpha for the Fam-OR was below 0.7, which must be taken into consideration when interpreting the results.

Even though the magnitude of the statistical effect was small or medium, these values are arbitrary and should not be interpreted rigidly (Lakens, 2013). Even small effect sizes can have large practical consequences and be important in the context of how nurses can help families to overcome or cope with illness during hospitalisation.

Conclusion

Generally, Danish nurses have positive attitudes towards family involvement in care. Higher education level and engagement within primary healthcare and/or psychiatry were significantly associated with more positive attitudes. Less supportive attitudes about involving families in nursing care were significantly associated with being a younger nurse without experiences with illness within their own families, having few years of engagement at a hospital and having no additional education except basic nursing education. Thus, there is a strong need for education on the importance of active involvement of families in nursing care, particularly within basic undergraduate education and clinical hospital practice. In addition, more research is needed in order to investigate the cultural and regional influences on attitudes between hospital nurses and nurses working within primary care and psychiatry.

Relevance to clinical practice

Positive attitudes from nurses' to actively involve the family are necessary to deliver a good quality of care in most hospital and healthcare settings. Clinical leaders and managers should facilitate provision of education on the importance of families and active family involvement in patient care in clinical practice as well as in undergraduate education. More focus on collaboration with families in the hospital setting is needed. Knowledge on how active family involvement affects patient care is needed. This could lead to an expansion of family nursing in the overall clinical practice worldwide. To change the culture towards a more family-focused approach, interventions needs to be developed, tested and translated into practice to promote family-focused nursing care systemically.

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Table 1. Characteristics of nurses who completed the FINC-NA questionnaire (*n* = 1720) and nurses who did not complete the FINC-NA questionnaire (*n* = 457)

Values	Completed	Not completed	Test statistics/*p*-value
Age, median (interquartile range, range)	44 (35–53; 22–72)	45 (34–53; 23–72)	U = 37.8138[a] *p* = 0.454
Gender, *n* (%)			
Female	1677 (97.5)	435 (95.6)	$\chi 2 = 4.597$[b]
Male	43 (2.5)	20 (4.4)	*p* = 0.032
Working experiences, years, median (interquartile range)	16 (6.5–26)	16 (6–26)	U = 36.9935[a] *p* = 0.733
Primarily working area, *n* (%)			
Hospital	1296 (75.3)	365 (80.0)	$\chi 2 = 5.990$[b]
Primary care	224 (13.0)	41 (9.0)	*p* = 0.050
Psychiatry	200 (11.6)	50 (11.0)	
Level of nursing education, n (%)			
Bachelor's degree	1531 (89.0)	392 (88.3)	$\chi^2 = 2.477$[b]
Master's degree	109 (6.3)	35 (7.9)	*p* = 0.480
PhD	12 (0.7)	4 (0.9)	
Experiences with serious illness within own family, *n* (%)	1330 (77.3)	327 (72.5)	$\chi 2 = 4.594$[b] *p* = 0.032

FINC-NA = Families' Importance in Nursing Care: Nurses Attitudes; [a]Mann–Whitney U; [b]Pearson's chi-square (two-sided)

Table 2. Variations of median scores of nurses' attitudes towards the importance of families' involvement in care (n = 1720)

					95% CI of median[a]	
	Median	Range	Bias	SE	Lower	Upper
FINC-NA total	90	34 - 127	0.599	0.2720	90	91
Fam-RNC	38	10 - 50	0.02	0.13	38	38
Fam-CP	28	9 - 40	0.00	0.03	28	28
Fam-B	15	5 - 20	0.36	0.48	15	16

Fam-OR	15	4 - 20	0.00	0.01	15	15

[a]Bootstrapping. CI = Confidence Interval. SE = Standard Error.

FINC-NA, Families' Importance in Nursing Care – Nurses' Attitudes. Fam-RNC = family as a resource in nursing care. Fam-CP = family as a conversational partner. Fam-B = family as a burden. Fam-OR = family as own resource. Possible score range: FINC-NA total 26-130, Fam-RNC 10-50, Fam-CP 8-40, Fam-B 4-20, Fam-OR 4-20.

Table 3. Comparison of background variables with scores of nurses' attitudes regarding the importance of families in the total FINC-NA scale and subscales

	FINC-NA total		Fam-RNC		Fam-CP		Fam-B		Fam-OR	
Variables	Median/IQR	*p*-value	Median/IQR	*p*-value	Median/IQR	*p*-value	Median/IQR	*p*-value	Median/IQR	*p*-value
Gender[a]										
Male, *n* = 43	88 (83–95)	0.205	37 (35–40)	0.163	27 (25–31)	0.328	15 (13–17)	0.792	15 (14–16)	0.699
Female, *n* = 1677	90 (84–97)		38 (35–42)		28 (25–31)		15 (13–17)		15 (14–17)	
Education level[a]										
Basic nursing, *n* = 1531	90 (84–96)	<0.001	38 (35–41)	<0.001	28 (25–31)	<0.001	15 (13–17)	<0.001	15 (14–17)	<0.001
Master's/doctorate degree, *n* = 189	93 (86–100)		40 (36–44)		30 (26–34)		17 (15–19)		16 (14–18)	
Health organisation[a]										
Hospital, *n* = 1296	90 (84–97)	0.007	38 (35–42)	0.896	28 (25–31)	<0.001	15 (13–17)	0.007	15 (14–17)	0.003
Others, *n* = 424	92 (85–97)		38 (35–42)		29 (26–32)		16 (13–18)		16 (14–17)	
Experiences of illness[b]										
Yes, *n* = 1330	90 (84–97)	0.285	38 (35–42)	0.982	28 (25–31)	0.026	15 (13–17)	0.817	15 (14–17)	0.928
No, *n* = 390	90 (83–96)		38 (35–42)		28 (25–31)		15 (13–17)		15 (14–17)	
Age[c]	0.067[d]	<0.01	0.060[d]	<0.05	0.187[d]	<0.01	0.266[d]	<0.01	0.104[d]	<0.01

[a]Mann–Whitney U test for two independent samples. [b]Have you or a member of your family ever been seriously ill and in need of professional care? [c]Spearman's Rank-Order Correlation. [d]Correlation coefficient. IQR = interquartile range (25–75 percentiles). FINC-NA = Families' Importance in Nursing Care – Nurses' Attitudes. Fam-RNC = family as a resource in nursing care. Fam-CP = family as a conversational partner. Fam-B = family as a burden. Fam-OR = family as own resource. Possible score range: FINC-NA total 26-130, Fam-RNC 10-50, Fam-CP 8-40, Fam-B 4-20, Fam-OR 4-20.

Table 4. Binary logistic regression analyses of factors predicting the importance of families' involvement in nursing care in the total FINC-NA scale with subscales (n =1720)

Predictor	B (SE)	Wald's $\chi 2$	OR	95% CI for OR		*p*-value
				Lower	Upper	
FIC-NA total						
Health organization	-0.014 (0.006)	31.591	0.986	0.975	0.997	0.010
Education (high/low)	-0.025 (0.008)	10.644	1.025	1.010	1.040	0.001
Fam-RNC						
Education (high/low)	0.063 (0.015)	18.521	1.065	1.035	1.097	<0.001
Fam-CP						
Age, years (≤35/≥36)	0.066 (0.012)	32.792	1.069	1.045	1.093	<0.001
Health organization	-0.059 (0.012)	25.476	0.943	0.922	0.965	<0.001
Engaged as a nurse, years (≤7/≥8)	0.063 (0.011	30.385	1.065	1.041	1.089	<0.001
Education (high/low)	0.076 (0.016)	22.852	1.079	1.046	1.113	<0.001
Illness experiences (yes/no)[a]	-0.025 (0.012)	4.622	0.975	0.952	0.998	0.032
Fam-B						
Age, years (≤35/≥36)	0.201 (0.019)	110.614	1.223	1.178	1.270	<0.001
Health organization	-0.054 (0.019)	8.148	0.948	0.914	0.983	0.004
Engaged as a nurse, years (≤7/≥8)	0.189 (0.019)	101.408	1.207	1.164	1.253	<0.001

Education (high/low)	0.213 (0.030)	52.203	1.238	1.168	1.311	<0.001
Fam-OR						
Age, years (≤35/≥36)	0.076 (0.023)	10.998	1.079	1.032	1.129	0.001
Health organization	-0.078 (0.024)	10.617	0.925	0.883	0.969	0.001
Engaged as a nurse, years (≤7/≥8)	0.065 (0.023)	8.277	1.067	1.021	1.116	0.004
Education (high/low)	0.128 (0.033)	14.783	1.136	1.065	1.213	<0.001

OR = Odds Ratio, CI = Confidence Interval, SE = Standard Error, health organization = area with the longest engagement (hospital, primary health care, psychiatry), Education = level of education within nursing (master, candidate, PhD, basic nursing), [a]Have you or a member of your family ever been seriously ill and in need of professional care?, FINC-NA = Families' Importance in Nursing Care – Nurses' Attitudes, Fam-RNC = family as a resource in nursing care, Fam-CP = family as a conversational partner, Fam-B = family as a burden, Fam-OR = family as own resource

Table 5. Magnitude of the effect size of factors predicting the importance of families' involvement in nursing care in the total FINC-NA scale with subscales (n =1720)

	Mean square between groups	F	Eta[a] squared	*p*-value	Cohen's *d*[b]	95% CI Lower	95% CI Upper
FINC-NA total							
Health Organisation	687,325	6.610	0.004	0.010	-0.1436	-0.2532	-0.0340
Education (high/low)	1114.338	10.741	0.006	0.001	0.2520	0.1012	0.4028
Fam-RNC							
Education (high/low)	535.345	18.860	0.011	≤0.001	0.3331	0.1827	0.4835
Fam-CP							
Age, years (≤35/≥36)	802.454	34.167	0.019	≤0.001	0.3161	0.2100	0.4221
Health organisation	618.322	26.207	0.015	≤0.001	-0.2843	-0.3933	-0.1754
Engaged as a nurse, years (≤7/≥8)	772.379	32.862	0.019	≤0.001	-0.2841	-0.3813	-0.1869
Education (high/low)	553.925	23.441	0.013	≤0.001	0.3709	0.2206	0.5211
Illness experiences (yes/no)[a]	110.901	4.642	0.003	0.031	0.1239	0.0111	0.2368
Fam-B							

Age, years (≤35/≥36)	1114.058	128.861	0.070	≤0.001	0.5978	0.4945	0.7011
Health organisation	75.997	8.216	0.005	0.004	-0.1600	-0.2695	-0.0505
Engaged as a nurse, years (≤7/≥8)	1235.836	144.128	0.077	≤0.001	-0.5769	-0.6711	-0.4826
Education (high/low)	504.965	56.107	0.032	≤0.001	0.5685	0.4196	0.7173
Fam-OR							
Age, years (≤35/≥36)	62.707	11.139	0.006	0.001	0.1817	0.0749	0.2884
Health organisation	60.440	10.734	0.006	0.001	-0.1828	-0.2922	-0.0734
Engaged as a nurse, years (≤7/≥8)	55.229	9.803	0.006	0.002	-0.1562	-0.2540	-0.0583
Education (high/low)	84.273	15.003	0.009	≤0.001	0.2974	0.1468	0.4480

[a]One-Way ANOVA. [b]Standardised mean differences. Health organisation = area with the longest engagement (hospital, primary health care, psychiatry). Education = level of education within nursing (master, candidate, PhD, basic nursing). [a]Have you or a member of your family ever been seriously ill and in need of professional care? FINC-NA = Families' Importance in Nursing Care – Nurses' Attitudes. Fam-RNC = family as a resource in nursing care. Fam-CP = family as a conversational partner. Fam-B = family as a burden. Fam-OR = family as own resource.