JCN Journal of Clinical Nursing

Nurses' attitudes towards family importance in nursing care across Europe

Journal:	*Journal of Clinical Nursing*
Manuscript ID	JCN-2021-2946.R1
Manuscript Type:	Original Article
Search Terms:	Family Nursing, Family Care, Nurse, Nursing Care, Nursing

Nurses' attitudes towards family importance in nursing care across Europe

ABSTRACT

Aim: To explore differences in nurses' attitudes regarding the importance of family in nursing care and factors associated with nurses' attitudes across 11 European countries.

Background: Family involvement in healthcare has received attention in many European healthcare systems. Nurses have a unique opportunity to promote family involvement in healthcare; however, their attitudes and beliefs may facilitate or impede this practice.

Design: A cross-sectional survey across European countries.

Method: A broad convenience sample of 8,112 nurses across 11 European countries was recruited from October 2017 to December 2019. Data were collected using the Families' Importance in Nursing Care-Nurses' Attitudes (FINC-NA) questionnaire. We used the STROBE checklist to report the results.

Results: There were significant differences in nurses' attitudes about families' importance in nursing care across Europe. Country was the factor with the strongest association with the total scores of the FINC-NA. Older age, higher level of education, increased years since graduation, having a strategy for the care of families in the workplace, and having experience of illness within one's own family were associated with a higher total FINC-NA score. Being male and working in a hospital or other clinical settings were associated with a lower total FINC-NA score.

Conclusion: Nurses' attitudes regarding the importance of family in nursing care vary across 11 European countries. This study highlights multiple factors associated with nurses' attitudes. Further research is necessary to gain a deeper understanding of the reasons for nurses' different attitudes and to develop a strong theoretical framework across Europe to support family involvement in patient care. The inclusion of family healthcare programs in the baccalaureate curriculum may improve nurses' attitudes.

Relevance for clinical practice: In clinical practice, the focus should be on identifying influencing factors on nurses' attitudes to enhance families' importance in nursing care across Europe.

Keywords: Nursing, Nurses, Attitudes, Family, Family Care, Europe, Cross-national.

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

- The paper sheds light on the nurses' attitudes regarding the importance of family involvement in nursing care and draws attention to the factors that influence nurses' attitudes across Europe.
- The findings may guide leaders in nursing education across Europe to consider including family nursing or family healthcare programs in the baccalaureate or general-level curriculum to promote family importance in nursing care.
- The identified factors associated with the nurses' attitudes may guide nursing leadership in clinical practice to provide training or education programs for nurses who have less positive attitudes towards involving families in nursing care.

1 | INTRODUCTION

The importance of family care in managing health conditions and enhancing patient safety is increasingly acknowledged worldwide (Gilliss et al., 2019). Moreover, the role of the family has been highlighted because of the increased number of older people with chronic conditions and disabilities who need support for activities of daily living (Årestedt et al., 2015). In Europe, the provision of long-term care falls primarily on family members, who provide more than 80% of the support needed (Barbieri & Ghibelli, 2018; Hoffmann & Rodrigues, 2010).

It is also known that the experience of illness is a family affair (Shajan & Snell, 2019). Individuals' diseases impact the health of their family members. On the other hand, families' functioning and coping strategies have a vital role in the way patients experience their conditions (Benzein et al., 2008; Blöndal et al., 2014; Fernandes et al., 2018). This interdependent relationship is reported in studies conducted in diverse contexts, clinical practice, and health-illness transitions experienced within the family (Esandi et al., 2021; Laidsaar-Powell et al., 2017).

Family involvement in healthcare has received attention in many European healthcare systems (Vrangbaek, 2015). Several investigations have shown that including families in nursing care improves health outcomes for both the patients and their family members (Ris et al., 2019; Shamali et al., 2020). Moreover, following family-oriented interventions, families describe rewarding aspects such as growth, better communication, improved control over the condition, improved family functioning, improved coping, and higher perceived support (Broekema et al., 2021; Svavarsdottir & Sigurdardottir, 2013). Nurses have a unique opportunity to promote family involvement in healthcare; however, their attitudes and beliefs may facilitate or impede this practice (Benzein et al., 2008).

1.1 | Background

In a family systems nursing approach, nursing is conceptualized as care that focuses on the family as the unit of care. This approach encourages nurses to "think family" and interact with the family as an interdependent whole (Broekema et al., 2018; Shajan & Snell, 2019). Thus, involving family in nursing care indicates caring for family, based on the knowledge that family is a permanent part of a patient's life with mutual interaction within its members (Angelo et al., 2014; Harrison, 2010).

Nurses' positive attitudes towards the inclusion of family in nursing care is a key prerequisite to involving families in nursing care and promotes communication between nurses and families (Angelo et al., 2014; Benzein et al., 2008; Ris et al., 2019; Wright & Bell, 2021). Attitudes include affective (feelings and emotions), cognitive (thoughts and beliefs), and behavioural (reaction tendencies) components in response to a stimulus (Angelo et al., 2014). Nurses who have a supportive attitude, respect family involvement, and identify the importance of the family for the patient's recovery (Wright & Bell, 2021) are more likely to display behaviours that reinforce family participation (Fisher et al., 2008). When nurses consider family members as an important element in the process of care, they are more likely to initiate effective interactions with them. In contrast, nurses who consider family as a burden, avoid interacting with families (Benzein et al., 2008). This negative attitude may stem from the belief that family's engagement in patient care may have a negative impact on nurses' work (Benzein et al., 2008).

There is a growing interest in studying nurses' attitudes regarding the involvement of family in healthcare. Nurses' attitudes in various populations and healthcare settings have been studied. For instance in paediatric care in Switzerland (Naef et al., 2020), surgical and psychiatric care in Iceland (Blöndal et al., 2014; Petursdottir et al., 2021) and Portugal (Fernandes et al., 2018), critical and emergency care in Scotland and Iceland (Hallgrimsdottir, 2004), intensive care in Israel (Ganz & Yoffe, 2012), hospital and oncology care in Spain

(Alfaro Díaz et al., 2019), cardiovascular care in various Scandinavian countries and Belgium (Luttik et al., 2017; Shamali et al., 2021), and transitional care in Canada (Hoplock et al., 2019). Overall, these studies indicate positive attitudes regarding the involvement of family in nursing care, with differences in demographic factors such as gender, age, work experience, educational level, and workplace.

In summary, several studies have investigated nurses' attitudes towards family involvement in nursing care in diverse European countries and various healthcare settings. However, few studies have investigated nurses' attitudes at cross-country level in which each country stands as an independent variable in the statistical analysis. The cross-country comparison can provide a better picture of nurses' attitudes and potential factors associated with it. This may also inform the development of effective strategies across Europe to advance nurses' positive attitudes towards family involvement in patient care. To our knowledge, there was no such cross-country study in Europe.

2 | THE STUDY

2.1 | Aims

To describe nurses' attitudes regarding family involvement in nursing care across Europe and identify the factors associated with nurses' attitudes towards families across countries.

2.2 | Design

A cross-sectional survey approach was used, adhering to the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines for articles reporting cross-sectional studies (Supplementary File 1). The initial idea of this study originated in the Family Health in Europe – Research in Nursing (FAME-RN) group. The FAME-RN is a research network of nine family nurse researchers representing five European countries (Denmark,

Iceland, Switzerland, the Netherlands, and Spain) aiming to conduct research to improve family health across Europe. Initially, the study started with the five countries participating in the FAME-RN network. Subsequently, six other countries, based on the extended family nursing network of the FAME-RN group, were invited to participate when they had the possibility of data collection.

2.3 | Study settings, participants, and data collection

The Families' Importance in Nursing Care-Nurses' Attitudes (FINC-NA) questionnaire was distributed to a broad convenience sample of nurses. There were no strict in- or exclusion criteria except for the nurses to live and work in one of the participating European countries. In Denmark, the Netherlands, the United Kingdom (the UK including England, Northern Ireland, Scotland, and Wales), the Republic of Ireland (Ireland), Germany, Austria, and Switzerland, a broad countrywide data collection strategy was used whereby nurses from all healthcare settings and all specialties were approached to participate. In Norway, Portugal, and Iceland, data were collected among nurses working in hospitals and community care settings. In Spain, data were collected among nurses working in hospital settings (Supplementary Table 1).

Data collection took place between October 2017 and December 2019. Most countries, including Denmark, the Netherlands, the UK, Ireland, Germany, Austria, Iceland, and Switzerland, collected their data via an online survey application distributed via national nursing societies, local institutions, and social media such as Facebook, Instagram, Twitter, WhatsApp, and LinkedIn in accordance with the snowball strategy (Sadler et al, 2010; Patton, 2014). Each country chose an online survey application that was convenient for itself or specific universities, under the condition that the data ultimately needed to be delivered in a cleaned (free from errors and missing data) SPSS file. Norway and Spain collected their data using paper questionnaires. Portugal used a combination of both online and paper

questionnaires (Supplementary Table 1). Data from the UK and Ireland were collected in one dataset (UK & Ireland) because of the small sample size in Ireland.

2.4 | Instrument

There are several instruments to understand the phenomenon within the scope of this study (Alfaro Díaz et al., 2019). The FINC-NA scale is the most frequently used questionnaire and was developed in Sweden (Benzein et al., 2008). The FINC-NA scale has been validated in different healthcare settings, and it is the measure based on family systems nursing theory that measures nurses' attitudes regarding families in nursing care (Alfaro Díaz et al., 2019). We used the revised and validated version of the FINC-NA questionnaire (Saveman et al., 2011). The revised FINC-NA scale includes 26 items with a 5-point Likert scale format (theoretical score range of 26–130; Supplementary Table 2). It has four subscales: family as a resource in nursing care (Fam-RNC), family as a burden (Fam-B), family as a conversational partner (Fam-CP), and families' resources (Fam-OR). Higher scores represent more positive attitudes. The FINC-NA questionnaire includes a set of background variables, such as age, gender, educational level, work setting, general approach to the care of families, and experience with serious illness within own family.

The validity and internal consistency of the FINC-NA questionnaire were demonstrated and reported by Cronbach's alpha coefficients of 0.92 for the total FINC-NA scale and greater than 0.70 for the subscales (range 0.72–0.86) (Hagedoorn et al., 2018; Saveman et al., 2011).

All countries started from the original English version of the revised FINC-NA questionnaire (including background characteristics) and were asked to translate the questionnaire using standard translation procedures (translation and back-translation and consensus on content and wording among participating researchers in each country) (Wild

et al, 2005). The German-speaking countries (Austria, Germany, and Switzerland) carried out a multi-level translation to produce one questionnaire for all three countries with only minimal country-specific adaptations.

2.5 | Ethical considerations

Each of the participating countries sought ethical and data agency permission according to the rules of their respective countries. In Denmark, the study was registered in the record of data processing agency at the local university under the General Data Protection Regulation (GDPR), which also permitted transfer of the collected data to be used in the present study. In Norway, the study was approved by the NSD-Norwegian center for research data. In Portugal, data collection was approved by the ethical boards of three local hospitals. In Switzerland, the study was exempt from ethical committee approval based on the Swiss Human Research Act (HRA). In Austria, Germany, Iceland, Netherlands, Spain, and UK & Ireland, the study was approved by an ethical committee in the local university. Data were collected anonymously. All participants were informed that their participation was voluntary, and they were assured of the confidentiality of their personal information. The study conformed with the principles of the Declaration of Helsinki (World Medical, 2013).

2.6 | Data analysis

The IBM SPSS Statistics platform (version 24) was used to organise and analyse the data. Screening for missing data was performed before the data analysis. In Denmark, the variable *"general approach to the care of families"* (having experience of using an organizational approach for family care) was removed from the questionnaire by the research team because there was no organizational approach for family care at the time of data collection in Denmark. In the UK & Ireland, the variable "*education*" was not included in the questionnaire at the time of data collection because the UK & Ireland dataset comprised of results from

nurses in the UK including four countries and the Republic of Ireland, and historically nurse education systems and professional and academic qualifications awarded have differed between the five countries. Therefore, the research team made an executive decision to exclude the education question (based on the original context) as it did not fit with and would not provide meaningful information in the cultural context of the UK & Ireland. Thus, these variables from Denmark and the UK & Ireland were not available in the final dataset. In the Icelandic dataset, the data for the variables *age* and *years since graduation* were collected using categories due to privacy regulations. These variables were categorized for all countries for inclusion in the final dataset. Moreover, in the dataset of the UK & Ireland, two participants had missing values > 90% and were deleted from the dataset. The overall missing values in the UK & Ireland dataset were 2.6%, and in other countries were < 1%. No particular pattern was observed in the missing data, indicating that the data were missing at random. Thus, the expectation-maximization algorithm was used to replace the missing data (Kang, 2013). The expectation-maximization method imputes missing values with values estimated by the maximum likelihood method. All the datasets from each country were then merged into one final dataset.

Descriptive statistics (frequency, percentages, mean, and standard deviation) were used to summarize the demographic, clinical, and outcome variables. One-way analysis of variance (ANOVA) was used for comparison of the outcome variables between the countries. The significant ANOVA tests were further analysed with the post hoc analysis of the Bonferroni correction.

A general linear model (GLM) was conducted to explore the factors related to the nurses' attitudes towards the importance of families in nursing. The potential factors (country, gender, age, years since graduation, education, organization, organizational family approach, and experience of a family member's illness) were entered, and the main effect of the

variables was tested. Since the data for *education* and *general approach to the care of families* were not available for the UK & Ireland, and Denmark, two different models were developed. In the first model, we included all the potential variables in the model except those from the UK & Ireland, and Denmark (total sample = 5,659). In the second model, we excluded the variables *education* and *general approach to the care of families* from the model so that all countries in the *country* variable were included in the model (total sample = 8,112). The variable estimates were reported by unstandardized regression coefficients (β). The effect size of each significant variable was reported by partial eta squared (η^2). The R-squared (R^2) was used to evaluate the overall model fit.

3 | RESULTS

3.1 | Sample characteristics

A total of 8,112 participants from 11 countries were included and analysed in this study: Switzerland, 2,151 participants (26.52%); Denmark, 1,720 (21.20%); Austria, 1,238 (15.26%); UK & Ireland, 733 (9.04%); Germany, 597 (7.36%); Iceland, 425 (5.24%); Netherlands, 397 (4.89%); Portugal, 309 (3.81%); Norway, 294 (3.62%); and Spain, 248 (3.06%). Sample characteristics are shown in Table 1. Participants were predominantly female (90.5%). Most participants had a general nursing education (84.4%), worked in a hospital or another clinical setting (78.9%), and graduated 16 years ago or more (52.7%). Approximately two-thirds of participants had personal experience of a family member's illness, however, more than half of the participants had no experience of family care's approach.

3.2 | Cross-country comparison of nurses' attitudes towards families in nursing care

The one-way ANOVA with post hoc analysis indicated a significant difference in the total score of the FINC-NA scale among the countries [F (9, 8102) = 294.1; $p < 0.001$; Table 1]. That is, the UK & Ireland participants had significantly higher scores than all the other countries except for Spain. Austria's participants had the lowest scores among the countries. Furthermore, there was a significant difference among the countries in the scores of the FINC-NA in sub-scales Fam-RNC [F (9, 8102) = 88.7; $p < 0.001$], Fam-B [F (9, 8102) = 274.5; $p < 0.001$], Fam-CP [F (9, 8102) = 40; $p < 0.001$], and Fam-OR [F (9, 8102) = 238.3; $p < 0.001$; Table 1]. That is, Austria's participants had the lowest scores in all four sub-scales of the FINC-NA. The UK & Ireland participants had the highest scores in the sub-scale Fam-CP, Fam-B, and Fam-OR. Spain's participants had the highest scores in the sub-scale Fam-RNC.

3.3 | Factors related to nurses' attitudes towards families in nursing care

3.3.1 | Model I

In the first GLM, all potential factors related to nurses' attitudes regarding families in nursing care were included. Since the UK & Ireland and Denmark datasets did not include data on *education* and *general approach to the care of families*, respectively, these two countries were excluded from this model. The results of the first GLM demonstrated that *country* ($p < 0.001$), *gender* ($p < 0.001$), *age* ($p < 0.001$), *years since graduation* ($p = 0.008$), *education* ($p < 0.001$), *organization* ($p < 0.001$), *general approach to the care of families* ($p < 0.001$), and *experience with serious illness within own family* ($p = 0.002$) were significantly associated with the total score of the FINC-NA scale.

3.3.1.1 | Country

Compared to nurses in Austria, the mean total score of the FINC-NA increased by 14.052 points in Spain ($p < 0.001$), 10.229 points in Portugal ($p < 0.001$), 7.818 points in Switzerland

($p < 0.001$), 7.426 points in Iceland, 3.547 points in Germany, 3.373 points in Norway ($p < 0.001$), and 2.902 points in the Netherlands (p = 0.001) (Table 2).

3.3.1.2 | Gender, age, and education

Compared to female nurses, male nurses had a lower total score on the FINC-NA by a mean of 2.243 points ($p < 0.001$). Compared to nurses ≥ 61 years old, the total FINC-NA scores were lower by 5.718 points ($p < 0.001$) and 2.698 points ($p = 0.015$) in nurses ≤ 30 and 31–40 years old, respectively. Compared to nurses with ≥ 15 years since graduation, the total FINC-NA scores were lower by 2.388 points ($p = 0.001$) in nurses with 11–15 years since graduation and 1.712 points ($p = 0.019$) in nurses with 6–10 years since graduation. Compared to nurses with doctorates, nurses with a general education had a lower FINC-NA total score by a mean of 5.785 points ($p < 0.001$).

3.3.1.3 | Setting

Nurses who worked in a hospital or other clinical setting showed a lower total FINC-NA score by a mean of 5.512 ($p < 0.001$) compared to nurses working in other organizations. Nurses working in organizations that have a general approach to the care of families had a total FINC-NA score 6.233 points ($p < 0.001$) higher than nurses working in organizations without a family approach. Nurses with experience with serious illness within their own family had a total FINC-NA score 1.305 ($p = 0.002$) points higher than nurses who had no experience with serious illness within their own family (Table 2).

The overall coefficient of determination (goodness of fit) for the first GLM was $R^2 = 0.188$, representing that 18.8% of the variations in the total FINC-NA score are explained by the variables included in the model. *Country* accounted for the highest variation (6.7%) of the total FINC-NA score ($\eta_p^2 = 0.067$).

3.3.2 | Model II

In the second GLM, because *country* had the highest effect size in the first model, we excluded the *education* and *general approach to the care of families* variables from the model so that the UK & Ireland, and Denmark could be included in the *country* variable. In the model, we examined *country* (all countries), *gender*, *age*, *years since graduation*, *education, organization,* and *experiences with serious illness within their own family.*

The results of the second GLM demonstrated significant associations of *country* ($p < 0.001$), *gender* ($p < 0.001$), *age* ($p < 0.001$), *years since graduation* ($p = 0.008$), *organization* ($p < 0.001$), and *experience with serious illness within their own family* ($p = 0.002$) with the total score of the FINC-NA scale.

Table 3 shows the parameter estimates in the second GLM. The significant parameters were the same as in the first model except that the total FINC-NA scores for nurses with ≤ 5 years since graduation ($p < 0.001$) were significantly lower than for nurses with ≥ 15 years since graduation. The overall coefficient of determination (goodness of fit) for the second GLM was $R^2 = 0.148$, representing that 14.8% of the variations in the total FINC-NA score can be explained by the variables included in the model. *Country* accounted for the highest variation (8.6%) of the total FINC-NA score ($\eta_p^2 = 0.086$).

4 | DISCUSSION

To our knowledge, this is the first study to investigate nurses' attitudes regarding family importance in nursing care across Europe. Our key findings indicate that these attitudes vary significantly across Europe. Country was the strongest factor associated with the total scores of the FINC-NA questionnaire.

Consistent with the findings in earlier studies, older age, higher level of education, more years since graduation, having an organizational approach to family care at the workplace, and having experience of illness within one's own family were significantly

associated with higher total scores on the FINC-NA (Barreto et al., 2022; Benzein et al., 2008; Blöndal et al., 2014; Hagedoorn et al., 2020; Luttik et al., 2017; Østergaard et al., 2020). Male gender and working in a hospital or other clinical setting were associated with lower total scores in the FINC-NA. Similarly, previous studies reported men having less positive attitudes than women towards the importance of family in nursing care and having less supportive attitudes towards family as a conversational partner (Benzein et al., 2008; Cranley et al., 2022; Østergaard et al., 2020). The reason may be attributed to the different communication styles between males and females, as female healthcare workers are more interpersonally and relationally oriented in building partnerships with patients than their male colleagues (Cranley et al., 2022; Street, 2002). In contrast, other studies reported no gender difference regarding the nurses' attitudes towards the importance of family in nursing care (Hoplock et al., 2019; Luttik et al., 2017). There is a need for further research to understand the underlying mechanisms for gender differences regarding the nurses' attitudes in particular, qualitative research may help to better understand the male nurses' perception of the importance of involving family in patient care.

Furthermore, nurses in this study who worked in a hospital or other clinical settings had less positive attitudes compared to those working in other settings. There is controversy in previous research regarding nurses' attitudes in different working places. Some studies reported that nurses working in community care reported more positive attitudes than those working in hospitals (Hagedoorn et al., 2020; Østergaard et al., 2020) which is in line with our results. However, other studies indicated no differences in nurses' attitudes in hospital and community care settings (Cranley et al., 2022; Hoplock et al., 2019). It is also reported that nurses working as researchers, educators, or managers tend to have more positive attitudes (Luttik et al., 2017). It seems that nurses who spend less time at the bedside with patients have more positive attitudes. That can be attributed to the fact that involving family in patient care

requires support from the healthcare team and special training programs (Cranley et al., 2022). Besides, when the complexity of the patient care increases, such as during resuscitation in critical care, nurses seem to have less supportive attitudes toward family presence (Al Mutair et al., 2014; Barreto et al., 2018). Hence, there is a need for special education and training programs to facilitate family involvement in patient care, especially in clinical settings. The focus of such programs should be on developing skills to build a healing atmosphere based on listening, respect, kindness, and a mutual relationship to knowing a family and understanding their illness suffering (Montoro-Gurich & Garcia-Vivar, 2019).

In general, the nurses' attitudes were positive regarding the importance of family in nursing care, with the total score on the FINC-NA scale above 90 (range 26–130) for all participating countries. This finding is also consistent with earlier studies in the individual European countries, indicating that nurses value the role of family in their nursing care (Benzein et al., 2008; Blöndal et al., 2014; Hagedoorn et al., 2020; Luttik et al., 2017; Østergaard et al., 2020). This finding is also in line with the fact that, in contemporary societies, family is highly valued as an important institution related to health and well-being (Montoro-Gurich & Garcia-Vivar, 2019) despite the characteristics that define the different countries (Carrasco, 2013).

In this study, country, after correcting for variation in the background variables, was a significant factor in explaining the differences in nurses' attitudes regarding the importance of family in nursing care. A recent study also indicated country as a significant predictor of family's importance in nursing care, reporting that nurses in Hong Kong, China, had less positive attitudes compared to nurses working in Sweden or Canada (Cranley et al., 2022). Similarly, another study reported that nurses working in Belgium had less positive attitudes compared to nurses in Scandinavian countries (Denmark, Sweden, and Norway) (Luttik et al., 2017). In the current study, we aimed to explore possible differences in nurses' attitudes

across European countries. We did not investigate the underlying reasons or mechanisms of these possible differences. Therefore, we can only speculate on how the differences that we found can be explained. The differences in attitudes of people across European countries cannot be explained by a single factor or a set of individual factors. Differences in nurses' attitudes are the result of a complex interplay of factors originating from cultural differences that might influence the way healthcare and educational systems are designed in different countries.

Countries and societies seem to share a common belief in the family as a highly important institution. However, family structures, family relationships, and family functioning differ across European countries and societies (Montoro-Gurich & Garcia-Vivar, 2019). The Mediterranean countries such as Spain and Portugal are often referred to as countries with strong family links, whereas the north-western countries (including the UK), Scandinavia, and the central European countries (e.g., Germany, Switzerland, and the Netherlands) are referred to as countries with weak family links (Reher, 1998). In societies with strong family links, there is great trust in the solidarity of family; for example, older parents gain more support from their children than in countries with weak family links (Suanet et al., 2012). The way countries and societies view and value the role of family in relation to health and healthcare affects the attitudes of their people, accordingly, affecting how nurses value the role of family in nursing care. This might explain the relatively high scores of Spain (total FINC-NA = 105.9) and Portugal (total FINC-NA = 102.3), which are countries referred to as having strong family links, and the lower scores of Germany (total FINC-NA = 94.7) and Austria (total FINC-NA = 90.2), which are referred to as countries with weaker family links. However, this explanation is not consistent with the fact that the UK & Ireland had the highest score (total FINC-NA = 107.8).

Furthermore, the way countries or societies view the role and value of family also affects the way societal policies (Reher, 1998) and health and welfare systems develop (Alesina & Giuliano, 2010). It has been described that, in countries or societies with weak family links, people tend or prefer to depend on the government welfare system and public resources, whereas, in countries or societies with strong family links, people prefer to depend on their family environment (Montoro-Gurich & Garcia-Vivar, 2019). Therefore, the health and welfare systems chosen by the different countries also influence the way their healthcare workers value the role of families and informal care. In addition, the health and welfare systems in all European countries are being challenged in terms of how to organize care due to substantial demographic changes (e.g., aging of the population) and changes in family structures (e.g., increased migration, increased divorce rates, and single-parent households). The need to sustain or renew the involvement of family in healthcare will be relevant to all European societies in the coming decades. Based on the results of this study, healthcare authorities may consider enhancing nurses' attitudes to the importance of family involvement in nursing care by focusing on nurses who are young, male, and working in hospital or clinical settings.

The European Union and the European Higher Education Area guide the implementation of nursing education in Europe to ensure comparable, compatible, and coherent systems of higher nursing education systems across the members of the European Union (Lahtinen et al., 2014). The efforts of the European Higher Education Area and the European Union are mainly aimed at system-related aspects such as entry qualifications, duration of education, amount of practical training, and levels of education. In regard to the content of nursing education, countries and universities can set their emphasis and specialties as long as the legal frameworks are respected. One possible implication of the results of this study is that leaders in nursing education across Europe may consider including family

nursing or family healthcare programs in the baccalaureate or general-level curriculum to promote family importance in nursing care. A scoping review has indicated such programs can improve the positive attitudes of nurses towards families in practice (Barreto et al., 2022).

As mentioned earlier, all these considerations remain speculative. More in-depth research is necessary to gain a deeper understanding of the mechanisms that positively influence the attitudes of nurses. Once we understand, we will be able to improve healthcare for families dealing with serious health challenges throughout Europe.

4.1 | Limitations

In this study, data collection was carried out through a self-selected convenience sample of nurses working in each of the participating countries who were willing to complete the survey. This may have caused selection bias, as participants who were willing to complete the survey probably had more experience of involving family in nursing care than nurses who did not respond to the survey. For instance, a previous study found that nurses with no experience of serious illness within their own family did not answer the full items of FINC-NA questionnaire (Østergaard et al., 2020). Furthermore, in some countries, data collection was narrowed to more specific settings, such as hospitals (in Spain) or hospitals and community settings (in Portugal, Norway, and Iceland). Data from these countries may therefore be less representative of the nursing discipline as a whole within these countries. In addition, absent variables from the UK & Ireland (education) and Denmark (general approach to the care of families) led to the use of two models instead of one model. The variables included in the model 1 and 2 explained 18.8% and 14.8% of the variation in the nurses' attitudes across 11 European countries, respectively. The remaining variation can be explained by variables that were not included in the models. Lastly, although we had a broad representation from 11 European countries, we did not include eastern European countries. The generalizability at the

country level is therefore limited to the countries included in this study, and conclusions should be considered indicative.

5 | CONCLUSION

This cross-country European study indicated that the nurses' attitudes regarding the importance of family in nursing care vary across 11 European countries. The significant factors associated with nurses' attitudes were country, gender, age, years since graduation, education level, organization, general approach to the care of families, and experience with serious illness within their own family. Further research, including eastern European countries, is necessary to gain a deeper understanding and develop a strong theoretical framework across Europe to support the development of optimal healthcare for the care and support of families dealing with serious health challenges.

6 | RELEVANCE TO CLINICAL PRACTICE

Today's health care system demands more collaboration between the healthcare providers and families to improve the quality of care and the health-related outcomes of patients and their family members. To do so, we need to enhance the knowledge of family importance and active family involvement in patient care. Hence, we need to understand how nurses perceive the role of a family member when providing nursing care. The results of this study can be used to identify the influencing factors on nurses' attitudes to enhance families' importance in nursing care across Europe. Moreover, we recommend that leaders in nursing education across Europe consider including family nursing or family healthcare programs in the baccalaureate or general-level curriculum to promote family importance in nursing care. We recommend developing specialized education and training programs for nurses working in clinical settings with a focus on developing awareness of the importance of families for patient care and skills to effectively involve families in patient care.

REFERENCES

Al Mutair, A., Plummer, V., Paul O'Brien, A., & Clerehan, R. (2014). Attitudes of healthcare providers towards family involvement and presence in adult critical care units in S audi A rabia: a quantitative study. *J Clin Nurs, 23*(5-6), 744-755.

Alesina, A., & Giuliano, P. (2010). The power of the family. *Journal of Economic growth, 15*(2), 93-125.

Alfaro Díaz, C., Esandi, L. N., Gutiérrez-Alemán, T., & Canga-Armayor, A. (2019). Systematic review of measurement properties of instruments assessing nurses' attitudes towards the importance of involving families in their clinical practice. *J Adv Nurs, 75*(11), 2299-2312. doi:10.1111/jan.14049

Angelo, M., Cruz, A. C., Mekitarian, F. F. P., Santos, C. C. d. S. d., Martinho, M. J. C. M., & Martins, M. M. F. P. d. S. (2014). Nurses' attitudes regarding the importance of families in pediatric nursing care. *Revista da Escola de Enfermagem da USP, 48*, 74-79.

Årestedt, L., Benzein, E., & Persson, C. (2015). Families living with chronic illness: beliefs about illness, family, and health care. *Journal of Family Nursing, 21*(2), 206-231.

Barbieri, D., & Ghibelli, P. (2018). *Formal vs. informal long-term care: Economic & social impacts*. Retrieved from http://sprint-project.eu/wp-content/uploads/2018/09/SPRINT_D4.4_Formal_vs_Informal-LTC_Econocmic_Social_Impacts.pdf

Barreto, M. d. S., Marquete, V. F., Camparoto, C. W., García-Vivar, C., Barbieri-Figueiredo, M. d. C., & Marcon, S. S. (2022). Factors associated with nurses' positive attitudes towards families' involvement in nursing care: A scoping review. *J Clin Nurs*. doi:https://doi.org/10.1111/jocn.16226

Barreto, M. S., Garcia-Vivar, C., Mitchell, M., & Marcon, S. S. (2018). Family presence during resuscitation in emergency departments: professionals' attitudes in Brazil. *International nursing review, 65*(4), 567-576.

Benzein, E., Johansson, P., Arestedt, K. F., & Saveman, B. I. (2008). Nurses' attitudes about the importance of families in nursing care: a survey of Swedish nurses. *J Fam Nurs, 14*(2), 162-180. doi:10.1177/1074840708317058

Blöndal, K., Zoëga, S., Hafsteinsdottir, J. E., Olafsdottir, O. A., Thorvardardottir, A. B., Hafsteinsdottir, S. A., & Sveinsdóttir, H. (2014). Attitudes of Registered and Licensed Practical Nurses About the Importance of Families in Surgical Hospital Units: Findings From the Landspitali University Hospital Family Nursing Implementation Project. *J Fam Nurs, 20*(3), 355-375. doi:10.1177/1074840714542875

Broekema, S., Luttik, M. L. A., Steggerda, G. E., Paans, W., & Roodbol, P. F. (2018). Measuring Change in Nurses' Perceptions About Family Nursing Competency Following a 6-Day Educational Intervention. *J Fam Nurs, 24*(4), 508-537. doi:10.1177/1074840718812145

Broekema, S., Paans, W., Oosterhoff, A. T., Roodbol, P. F., & Luttik, M. L. A. (2021). Patients' and family members' perspectives on the benefits and working mechanisms of family nursing conversations in Dutch home healthcare. *Health Soc Care Community, 29*(1), 259-269. doi:10.1111/hsc.13089

Carrasco, F. P. (2013). *Tipos de familia y bienestar de niños y adultos [Families and well-being in democratic societies. The cultural debate of the 21st century]* (Vol. 13). México City, Mexico: Pontificio Instituto Juan Pablo II para la Familia. .

Cranley, L. A., Lam, S. C., Brennenstuhl, S., Kabir, Z. N., Boström, A.-M., Leung, A. Y. M., & Konradsen, H. (2022). Nurses' attitudes toward the importance of families in nursing care: A multinational comparative study. *Journal of Family Nursing, 28*(1), 69–82. doi:10.1177/10748407211042338

Esandi, N., Nolan, M., Canga-Armayor, N., Pardavila-Belio, M. I., & Canga-Armayor, A. (2021). Family Dynamics and the Alzheimer's Disease Experience. *J Fam Nurs, 27*(2), 124-135. doi:10.1177/1074840720986611

Fernandes, C. S. N. d. N., Nóbrega, M. d. P. S. d. S., Angelo, M., Torre, M. I., & Chaves, S. C. d. S. (2018). Importance of families in care of individuals with mental disorders: nurses' attitudes. *Escola Anna Nery, 22*.

Fisher, C., Lindhorst, H., Matthews, T., Munroe, D. J., Paulin, D., & Scott, D. (2008). Nursing staff attitudes and behaviours regarding family presence in the hospital setting. *J Adv Nurs, 64*(6), 615-624. doi:10.1111/j.1365-2648.2008.04828.x

Ganz, F. D., & Yoffe, F. (2012). Intensive care nurses' perspectives of family-centered care and their attitudes toward family presence during resuscitation. *J Cardiovasc Nurs, 27*(3), 220-227. doi:10.1097/JCN.0b013e31821888b4

Gilliss, C. L., Pan, W., & Davis, L. L. (2019). Family Involvement in Adult Chronic Disease Care: Reviewing the Systematic Reviews. *J Fam Nurs, 25*(1), 3-27. doi:10.1177/1074840718822365

Hagedoorn, E. I., Paans, W., Jaarsma, T., Keers, J. C., van der Schans, C. P., Luttik, M. L., & Krijnen, W. P. (2018). Translation and Psychometric Evaluation of the Dutch Families Importance in Nursing Care: Nurses' Attitudes Scale Based on the Generalized Partial Credit Model. *J Fam Nurs, 24*(4), 538-562. doi:10.1177/1074840718810551

Hagedoorn, E. I., Paans, W., Jaarsma, T., Keers, J. C., van der Schans, C. P., & Luttik, M. L. A. (2020). The importance of families in nursing care: attitudes of nurses in the Netherlands. *Scand J Caring Sci*. doi:10.1111/scs.12939

Hallgrimsdottir, E. M. (2004). Caring for families in A&E departments: Scottish and Icelandic nurses' opinions and experiences. *Accid Emerg Nurs, 12*(2), 114-120. doi:10.1016/j.aaen.2004.01.004

Harrison, T. M. (2010). Family-centered pediatric nursing care: state of the science. *J Pediatr Nurs, 25*(5), 335-343. doi:10.1016/j.pedn.2009.01.006

Hoffmann, F., & Rodrigues, R. (2010). Informal carers: who takes care of them? *CiteSeerX*.

Hoplock, L., Lobchuk, M., Dryburgh, L., Shead, N., & Ahmed, R. (2019). Canadian Hospital and Home Visiting Nurses' Attitudes Toward Families in Transitional Care: A Descriptive Comparative Study. *J Fam Nurs, 25*(3), 370-394. doi:10.1177/1074840719863499

Kang, H. (2013). The prevention and handling of the missing data. *Korean J Anesthesiol, 64*(5), 402-406. doi:10.4097/kjae.2013.64.5.402

Lahtinen, P., Leino-Kilpi, H., & Salminen, L. (2014). Nursing education in the European higher education area - variations in implementation. *Nurse Educ Today, 34*(6), 1040-1047. doi:10.1016/j.nedt.2013.09.011

Laidsaar-Powell, R., Butow, P., Charles, C., Gafni, A., Entwistle, V., Epstein, R., & Juraskova, I. (2017). The TRIO Framework: Conceptual insights into family caregiver involvement and influence throughout cancer treatment decision-making. *Patient Educ Couns, 100*(11), 2035-2046. doi:10.1016/j.pec.2017.05.014

Luttik, M., Goossens, E., Ågren, S., Jaarsma, T., Mårtensson, J., Thompson, D. R., . . . Undertaking Nursing Interventions Throughout Europe research, g. (2017). Attitudes of nurses towards family involvement in the care for patients with cardiovascular diseases. *European Journal of Cardiovascular Nursing, 16*(4), 299-308.

Montoro-Gurich, C., & Garcia-Vivar, C. (2019). The Family in Europe: Structure, Intergenerational Solidarity, and New Challenges to Family Health. *J Fam Nurs, 25*(2), 170-189. doi:10.1177/1074840719841404

Naef, R., Kläusler-Troxler, M., Ernst, J., Huber, S., Dinten-Schmid, B., Karen, T., & Petry, H. (2020). Translating family systems care into neonatology practice: A mixed method study of practitioners' attitudes, practice skills and implementation experience. *Int J Nurs Stud, 102*, 103448. doi:10.1016/j.ijnurstu.2019.103448

Østergaard, B., Clausen, A. M., Agerskov, H., Brødsgaard, A., Dieperink, K. B., Funderskov, K. F., . . . Konradsen, H. (2020). Nurses' attitudes regarding the importance of families in nursing care: A cross-sectional study. *J Clin Nurs, 29*(7-8), 1290-1301. doi:10.1111/jocn.15196

Petursdottir, A. B., Rayens, M. K., Sigurdardottir, V., & Svavarsdottir, E. K. (2021). Long-Term Effect of Receiving a Family Strengths-Oriented Intervention on Family Cancer Caregiver Stress, Anxiety, and Depression Symptoms: A Longitudinal Quasi-Experimental Study. *J Fam Nurs, 27*(2), 114-123. doi:10.1177/1074840721994332

Reher, D. S. (1998). Family ties in Western Europe: persistent contrasts. *Population and development review*, 203-234.

Ris, I., Schnepp, W., & Mahrer Imhof, R. (2019). An integrative review on family caregivers' involvement in care of home-dwelling elderly. *Health Soc Care Community, 27*(3), e95-e111. doi:10.1111/hsc.12663

Saveman, B.-I., Benzein, E. G., Engström, Å. H., & Årestedt, K. (2011). Refinement and psychometric reevaluation of the instrument: Families' Importance in Nursing Care–Nurses' Attitudes. *Journal of Family Nursing, 17*(3), 312-329.

Shajan, Z., & Snell, D. (2019). *Wright & Leahey's Nurses and families: A guide to family assessment and intervention*: FA Davis.

Shamali, M., Konradsen, H., Svavarsdottir, E. K., Shahriari, M., Ketilsdottir, A., & Østergaard, B. (2021). Factors associated with family functioning in patients with heart failure and their family members: An international cross-sectional study. *J Adv Nurs, 77*(7), 3034-3045. doi:10.1111/jan.14810

Shamali, M., Østergaard, B., & Konradsen, H. (2020). Living with heart failure: perspectives of ethnic minority families. *Open Heart, 7*(1). doi:10.1136/openhrt-2020-001289

Street, R. L. (2002). Gender differences in health care provider–patient communication: are they due to style, stereotypes, or accommodation? *Patient Educ Couns, 48*(3), 201-206. doi:https://doi.org/10.1016/S0738-3991(02)00171-4

Suanet, B., Van Groenou, M. B., & Van Tilburg, T. (2012). Informal and formal home-care use among older adults in Europe: can cross-national differences be explained by societal context and composition? *Ageing & Society, 32*(3), 491-515.

Svavarsdottir, E. K., & Sigurdardottir, A. O. (2013). Benefits of a brief therapeutic conversation intervention for families of children and adolescents in active cancer treatment. *Oncol Nurs Forum, 40*(5), E346-357. doi:10.1188/13.Onf.E346-e357

Vrangbaek, K. (2015). Patient involvement in Danish health care. *J Health Organ Manag, 29*(5), 611-624. doi:10.1108/jhom-01-2015-0002

World Medical, A. (2013). World Medical Association Declaration of Helsinki: ethical principles for medical research involving human subjects. *JAMA, 310*(20), 2191-2194.

Wright, L. M., & Bell, J. M. (2021). *Illness beliefs: The heart of healing in families and individuals* (3rd ed.): 4th Floor Press.

Table 1. Sample characteristics

Characteristics	Total sample (n = 8112)	SZ (n=2151)	DK (n= 1720)	AT (n=1238)	UK&IE (n=733)	DE (n=597)	IS (n= 425)	NL (n=397)	PT (n=309)	NO (n= 249)	ES (n=248)
Age, years. n (%)											
≤ 30	1621 (20)	571 (26.5)	272 (15.8)	288 (23.3)	49 (6.7)	147 (24.6)	39 (9.2)	98 (24.7)	36 911.7)	66 (224)	55 (22.2)
31-40	1962 (24.2)	555 (25.8)	393 (22.8)	303 (24.5)	110 (15)	149 (25)	109 (25.6)	70 (17.6)	145 (46.9)	72 (24.5)	56 (22.6)
41-50	2066 (25.5)	496 (23.1)	481 (28)	352 (28.4)	179 (24.4)	138 (23.1)	111 (26.1)	83 (20.9)	84 (27.2)	59 (20.1)	83 (33.5)
51-60	1995 (24.6)	457 (21.2)	456 (26.5)	285 (23)	278 (37.9)	142 (23.8)	103 (24.2)	109 (27.5)	40 (12.9)	74 (25.2)	51 (20.6)
≥ 61	468 (5.8)	72 (3.3)	118 (6.9)	10 (0.8)	117 (16)	21 (3.5)	63 (14.8)	37 (9.3)	4 (1.3)	23 (7.8)	3 (1.2)
Gender, Female, n (%)	7338 (90.5)	1884 (87.6)	1677 (97.5)	1075 (86.8)	676 (92.2)	469 (78.6)	405 (95.3)	364 (91.7)	278 (90)	262 (89.1)	248 (100)
Years since graduation, n (%)											
≤ 5	1630 (20.1)	506 (23.5)	374 (21.7)	245 (19.8)	38 (5.2)	150 (25.1)	67 (15.8)	105 (26.4)	23 (7.4)	75 (25.5)	47 (19)
6-10	1218 (15)	377 (17.5)	256 (14.9)	186 (15)	60 (8.2)	93 (15.6)	62 (14.6)	67 (16.9)	62 (20.1)	37 (12.6)	18 (7.3)
11-15	991 (12.2)	248 (11.5)	217 (12.6)	131 (10.6)	59 (8)	68 (11.4)	81 (19.1)	54 (13.6)	69 (22.3)	40 (13.6)	24 (9.7)
≥ 16	4273 (52.7)	1020 (47.4)	873 (50.8)	676 (54.6)	576 (78.6)	286 (47.9)	215 (50.6)	171 (43.1)	155 (5.2)	142 (48.3)	159 (64.1)
Education, n (%)[a]											
General level	6226 (84.4)	1731 (80.5)	1531 (89)	1141 (92.2)	NA	492 (82.4)	319 (75.1)	370 (93.2)	253 (81.9)	176 (59.9)	213 (85.9)
Master level	1060 (14.4)	367 (17.1)	177 (10.3)	90 (7.3)	NA	91 (15.2)	104 (24.5)	27 (6.8)	53 (17.2)	116 (39.5)	35 (14.1)
Doctorate level	93 (1.3)	53 (2.5)	12 (0.7)	7 (0.6)	NA	14 (2.3)	2 (0.5)	0.0	3 (1)	2 (0.7)	0.0
Organization, n (%)											
Hospital/clinical setting	6403 (78.9)	1923 (89.4)	1296 (75.3)	1139 (92)	315 (43)	491 (82.2)	347 (81.6)	158 (39.8)	271 (87.7)	215 (73.1)	248 (100)
Primary/Community	1193 (14.7)	176 (8.2)	224 (13)	73 (5.9)	305 (41.6)	75 (12.6)	76 (17.9)	157 (39.5)	37 (12)	70 (23.8)	0.0
Other	516 (6.4)	52 (2.4)	200 (11.6)	26 (2.1)	113 (15.4)	31 (5.2)	2 (0.5)	82 (20.7)	1 (0.3)	9 (3.1)	0.0
Experience of family care's approach, yes, n (%)[b]	3754 (46.3)	1188 (55.2)	NA	492 (39.7)	589 (80.4)	253 (42.4)	384 (90.4)	247 (62.2)	177 (57.3)	282 (95.9)	142 (57.3)
Experience of family member's illness, yes, n (%)	5998 (73.9)	1528 (71)	1330 (77.3)	821 (66.3)	661 (90.2)	449 (75.2)	349 (82.1)	267 (67.3)	197 (63.8)	234 (79.6)	162 (65.3)
Fam total, m (SD)*	98.4 (15)	99.6 (14.6)	97.2 (13)	90.2 (17.2)	107.8 (12.5)	94.7 (15.2)	103.1 (13.8)	96.8 (14.4)	102.3 (10.9)	99.7 (11.5)	105.9 (11.8)
Fam-RNC, m (SD)*	38.3 (6.3)	38.3 (6.3)	38.4 (5.3)	34.8 (7.2)	41.1 (5.5)	37.2 (6.4)	40.7 (5.8)	37.9 (6.2)	40.2 (4.7)	39.3 (5.3)	42 (5.1)
Fam-CP, m (SD)*	29.4 (5.5)	29.8 (5.3)	28.3 (4.9)	26.7 (6.1)	34.2 (4.1)	28.1 (5.5)	30.1 (4.8)	28 (5.4)	30.9 (4.1)	29.4 (4.4)	32.6 (4)
Fam-B, m (SD)*	15.2 (3.2)	15.5 (3.1)	15.2 (3)	14.1 (3.5)	16 (2.8)	14.3 (3.4)	15.4 (3)	15.8 (3.1)	14.7 (2.8)	15.4 (2.9)	15 (2.8)
Fam-OR, m (SD)*	15.5 (2.9)	16 (2.9)	15.2 (2.4)	14.6 (3.6)	16.5 (2.3)	15 (3.3)	16 (2.9)	15 (3.1)	16.4 (2.1)	15.5 (2.3)	16.2 (2.5)

SZ, Switzerland; DK, Denmark; AT, Austria; UK&IE, United Kingdom & Ireland; DE, Germany; IS, Iceland; PT, Portugal; NL, Netherlands; NO, Norway; ES, Spain; NA; not available.

[a]Total sample size = 7379

[b]Total sample size = 6392

*Significant one-way ANOVA, p<0.001.

Table 2. Parameters' estimates for the total score of FINC-NA in the first general linear model (n = 5659).

Variable		β	SE	t	p-value	95% Confidence Interval		Partial Eta Squared
Country	Spain	14.052	.980	14.345	<0.001	12.131	15.972	.002
	Portugal	10.229	.899	11.372	<0.001	8.466	11.993	.040
	Switzerland	7.818	.508	15.385	<0.001	6.822	8.814	.306
	Iceland	7.426	.839	8.851	<0.001	5.781	9.071	.002
	Germany	3.547	.704	5.041	<0.001	2.168	4.926	.022
	Norway	3.373	.959	3.518	<0.001	1.493	5.253	.004
	Netherlands	2.902	.873	3.324	.001	1.190	4.613	.014
	Austria – reference	#						
Gender	Male	-2.243	.583	-3.851	<0.001	-3.385	-1.101	.003
	Female– reference	#						
Age	≤ 30	-5.718	1.252	-4.569	<0.001	-8.172	-3.265	.004
	31-40	-2.698	1.110	-2.429	.015	-4.875	-.521	.001
	41-50	-1.879	1.013	-1.855	.064	-3.866	.107	.001
	51-60	-1.314	1.012	-1.298	.194	-3.299	.671	.000
	≥ 61– reference	#						
Years since graduation	≤ 5	-1.486	.818	-1.817	.069	-3.089	.117	.001
	6-10	-1.712	.730	-2.346	.019	-3.143	-.281	.001
	11-15	-2.388	.714	-3.343	.001	-3.789	-.988	.002
	≥ 15– reference	#						
Education	General level	-5.785	1.590	-3.638	<0.001	-8.902	-2.667	.002
	Master level	-.788	1.636	-.482	.630	-3.995	2.419	.000
	Doctorate level– reference	#						
Organization	Hospital/Clinical setting	-5.512	1.065	-5.175	<0.001	-7.599	-3.424	.005
	Primary/Community	-1.892	1.150	-1.646	.100	-4.146	.362	.000
	Other– reference	#						
Experience of family care's approach	Yes	6.233	.396	15.736	<0.001	5.457	7.010	.042
	No– reference	#						
Experience of family member's illness	Yes	1.305	.414	3.150	.002	.493	2.117	.002
	No– reference	#						

B, unstandardized regression coefficients; SE, standard error.

R Squared = 0.188 (Adjusted R Squared = 0.185)

This parameter is set to zero.

Table 3. Parameters' estimates for the total score of FINC-NA in the second general linear model (n = 8112).

Variable		β	SE	t	p-value	95% Confidence Interval		Partial Eta Squared
Country	Spain	15.336	.970	15.805	<0.001	13.434	17.238	.030
	United Kingdom & Ireland	13.966	.692	20.183	<0.001	12.609	15.322	.048
	Portugal	11.896	.889	13.384	<0.001	10.153	13.638	.022
	Iceland	11.656	.797	14.620	<0.001	10.093	13.218	.026
	Switzerland	9.478	.497	19.073	<0.001	8.504	10.452	.043
	Norway	8.728	.909	9.605	<0.001	6.947	10.509	.011
	Denmark	5.671	.534	10.624	<0.001	4.625	6.718	.014
	Netherlands	4.813	.836	5.760	<0.001	3.175	6.451	.004
	Germany	4.383	.696	6.295	<0.001	3.019	5.748	.005
	Austria – reference	#						
Gender	Male	-2.286	.536	-4.265	<0.001	-3.336	-1.235	.002
	Female– reference	#						
Age	≤ 30	-4.518	.970	-4.657	<0.001	-6.420	-2.616	.003
	31-40	-2.001	.838	-2.389	.017	-3.643	-.359	.001
	41-50	-1.315	.731	-1.799	.072	-2.747	.118	.000
	51-60	-.197	.723	-.272	.786	-1.613	1.220	.000
	≥ 61– reference	#						
Years since graduation	≤ 5	-2.717	.687	-3.954	<0.001	-4.065	-1.370	.002
	6-10	-2.469	.611	-4.042	<0.001	-3.666	-1.272	.002
	11-15	-2.878	.599	-4.802	<0.001	-4.052	-1.703	.003
	≥ 15– reference	#						
Organization	Hospital/Clinical setting	-4.277	.665	-6.429	<0.001	-5.581	-2.973	.005
	Primary/Community	-1.263	.739	-1.708	.088	-2.712	.186	.000
	Other– reference	#						
Experience of family member's illness	Yes	1.159	.359	3.231	.001	.456	1.862	.001
	No– reference	#						

B, unstandardized regression coefficients; SE, standard error.

R Squared = 0.148 (Adjusted R Squared = 0.146)

This parameter is set to zero.

Supplementary Table 1. Data collection across countries.

Country	Area of data collection	Data collection method
Austria	a broad sample of nurses throughout the country within all areas	Online
Denmark	a broad sample of nurses throughout the country within all areas	Online
Germany	a broad sample of nurses throughout the country within all areas	Online
Iceland	Hospital and community care settings	Online
Netherlands	a broad sample of nurses throughout the country within all areas	Paper format & online
Norway	Hospital and community care settings	Paper format
Portugal	Hospital and community care settings	Paper format & online
Spain	Hospital settings	Paper format
Switzerland	a broad sample of nurses throughout the country within all areas	Online
United Kingdom & Ireland	a broad sample of nurses throughout the countries within all areas	Online

Supplementary Table 2. Families' Importance in Nursing Care-Nurses' Attitudes (FINC-NA) questionnaire and its subscales.

Family as a resource in nursing care (Fam-RNC)
1. The presence of family members eases my workload
2. The presence of family members gives me a feeling of security
3. The presence of family members is important to me as a nurse
4. Family members should be invited to actively take part in the patient's nursing care
5. Family members should be invited to actively take part in planning patient care
6. A good relationship with family members gives me job satisfaction
7. Getting involved with families gives me a feeling of being useful
8. I gain a lot of worthwhile knowledge from families which I can use in my work
9. The presence of family members is important for the family members themselves
Family as a conversational partner (Fam-CP)
11. I invite family members to have a conversation at the end of the care period
12. I ask family members to take part in discussions from the very first contact, when a patient comes into my care
13. I always find out what family members a patient has
14. I invite family members to speak about changes in the patient's condition
15. I invite family members to speak when planning care
16. It is important to find out what family members a patient has
17. I invite family members to actively take part in the patient's care
18. Discussion with family members during first care contact saves time in my future work
Family as a burden (Fam-B)
19. The presence of family members makes me feel that they are checking up on me
20. The presence of family members makes me feel stressed
21. The presence of family members holds me back in my work
22. I don't have time to take care of families
Family as own resource (Fam-OR)
23. I encourage families to use their own resources so that they have the optimal possibilities to cope with situations by themselves
24. I see myself as a resource for families so that they can cope as much as possible with their situation
25. I consider family members as cooperating partners
26. I ask families how I can support them

STROBE Statement—Checklist of items that should be included in reports of ***cross-sectional studies***

	Item No	Recommendation	Page No
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	1
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	2
Objectives	3	State specific objectives, including any prespecified hypotheses	6
Methods			
Study design	4	Present key elements of study design early in the paper	6
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	6
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants	6
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	7
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	7
Bias	9	Describe any efforts to address potential sources of bias	-
Study size	10	Explain how the study size was arrived at	9
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	9
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	9
		(*b*) Describe any methods used to examine subgroups and interactions	9
		(*c*) Explain how missing data were addressed	9
		(*d*) If applicable, describe analytical methods taking account of sampling strategy	9
		(*e*) Describe any sensitivity analyses	-
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	10
		(b) Give reasons for non-participation at each stage	
		(c) Consider use of a flow diagram	
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	10
		(b) Indicate number of participants with missing data for each variable of interest	
Outcome data	15*	Report numbers of outcome events or summary measures	11
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	11-13

		(*b*) Report category boundaries when continuous variables were categorized	
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	
Discussion			
Key results	18	Summarise key results with reference to study objectives	13
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	17
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	14
Generalisability	21	Discuss the generalisability (external validity) of the study results	17
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	15

*Give information separately for exposed and unexposed groups.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.