The impact of implementing an educational intervention to enhance a family-oriented approach in specialized palliative home-care: a quasi-experimental study

Abstract

Rationale: Healthcare providers´ beliefs, attitudes, experiences, and knowledge, which guide the care they deliver, are the key factors influencing the quality of palliative care. Education and coaching innovation is needed to translate research outcomes and adopt evidence-based nursing care into practice.

Objectives: To evaluate the impact of an advanced educational and coaching programme in a family systems nursing approach for palliative care nurses in a home care setting.

Methods: A quasi-experimental study; using qualitative data from open-ended questions to augment the quantitative outcome study that included a single-group, pre-post-test design. A total population sample of nurses was recruited from a specialized palliative home care unit at a university hospital. The study utilized two self-reported questionnaires.

Results: There was a statistically significant increase in the nurses´ critical appraisal of clinical nursing practice related to family nursing after participation in the educational programme than before. No statistical difference was found in items related to nurses´experience of the interaction and reciprocity in the nurse-family relationship after participation in the programme than compared to before or in nurses cancer-related beliefs. However, there was an overall significant positive change found in attitudes towards families in the total score of the Family Practice Scale. Nurses were also more positive about the further development of their knowledge and skills in advanced family nursing evident in the qualitative data.

Conclusion: An advanced educational intervention programme was successful in improving the nurses´ knowledge, skills, satisfaction, and confidence in relation to applied family nursing approach within the context of caring for families affected by advanced/final stage cancer. However, further refinement of the implementation process is needed to enhance family care improvement further and the nurses´ professional development in advanced family nursing in specialized palliative care.

Keywords: Educational and training program, family systems nursing, palliative care nurses, attitudes, healthcare practitioner´s illness beliefs, palliative home-care

Introduction

A family-oriented approach is an integral part of palliative care as demonstrated by the WHO definition of palliative care (1). Palliative home-care nurses are in a vital position to provide family-based palliative care as they have a firsthand view of the needs that have to be addressed (2) for both the patient and the family when dealing with advanced/final stage illness. However, the needs of the family members tend to go unrecognized by the healthcare providers´, which can affect the health of the family (3). It can be challenging for nurses to provide complex health care such as family support in palliative practice settings. Hence, family nursing in palliative and oncology practice settings is slowly receiving more attention from researchers and healthcare professionals (4, 5).

It has been emphasized that significant factors influencing the quality of palliative care are the healthcare providers´ beliefs, attitudes, experiences and knowledge which determine not only how they deliver care but also their behavior towards those they are caring for (6). When interacting with families in palliative home-care, it is necessary that palliative care nurses acknowledge that „illness is a family affair“ (7). Their beliefs about the importance of including other family members of the patient in their care will guide their actions towards the extent of a family-oriented approach in their practice (8). Results from studies addressing attitudes of nurses towards engaging with families have demonstrated, that even though nurses express the importance of focusing their care on family members, their practices are not always consistent with their interpretations (9, 10). It has also been emphasized that positive changes in the attitude of nurses towards families do not necessarily bring about a shift of existing nursing practice (11). Nevertheless, other findings have indicated that a family nursing approach can have the positive impact on how nurses view their work with families and thereby have relevance on professional development (12).

Increasing evidence is available on the importance of supporting families when dealing with serious illness conditions (13-15) and is considered to be feasible in daily practice within various clinical specialties (16, 17). However, there has been sparse research focusing on beliefs and attitudes of palliative care nurses in the context of advanced/final stage cancer and the importance of a family-oriented approach. In one of the few studies found, Duhamel & Dupuis (18) report some beliefs held by healthcare providers in palliative care. Another study performed in the palliative care context revealed beliefs of district nurses working in palliative home-care (19). No studies were found that focused on palliative home-care nurses illness beliefs or their attitudes towards acknowledging and including family members in the care

provided by the nurses. In this research, we designed and implemented an innovative educational and coaching programme for palliative care nurses to impact on their practice in relation to using a whole family approach in their care.

Educational Intervention to support family nursing approach

Prior to our study, a family system nursing (FSN) educational and training intervention programme (ETI programme) was offered to registered nurses, midwives and licensed practical nurses at the local university hospital when FSN was implemented at an institutional level at this hospital in 2007-2011 (20). Findings from a study evaluating this process indicated that nurses who had taken the course in FSN reported a significantly increased positive attitude towards involving families in their care after the ETI programme compared to those who had not taken part. The nurses also reported that the programme was a favorable experience and prepared them for applying family nursing in their clinical practice (21).

In this study, the palliative care nurses at a palliative home-care unit at a university hospital in Iceland were offered to participate in an advanced ETI programme (A-ETI programme) that had been scientifically further developed and modified for these specialized nurses based on FSN models. The FSN is a systematic approach in practice where the family is considered the unit of care. The A-ETI programme included education and supervision for the nurses in delivering a family nursing approach within their day-to-day practice, and the process was guided by the Knowledge Translation Action (KTA) framework (22).

The focus of the educational intervention was based on nurses beliefs and attitudes towards the importance of including family caregivers and other family members in advanced palliative care. The underpinning theoretical frameworks for the educational intervention were the Calgary Family Assessment and Intervention Models (23) from the family systems models. The Calgary Models are family nursing practice models which guide nurses when interacting with families in their care. We piloted implementing a family nursing approach and a family-oriented intervention into existing specialist palliative home-care services based on the A-ETI programme. The educational value of using specific programs and supervised clinical practice to promote a family perspective among nurses has been demonstrated in the literature (12, 24).

Research questions

Based on the literature review and the theoretical frameworks of the Calgary Family Models and the Illness Beliefs Model (25) that guided our research, it was hypothesized that a) the palliative nurses appraisal towards including families into specialized palliative home-care services, would significantly increase after having participated in the A-ETI programme; b) the palliative care nurses reflection on the family-nurse relationship would significantly increase following participation in the A-ETI programme; c) the palliative care nurses illness beliefs would significantly increase following participation in the A-ETI programme. The purpose was to answer the following research questions; a) what background variables (e.g., age, education, work experience) significantly influence nurses´attitudes or illness beliefs; b) what are the nurses attitudes towards including family caregivers and other family members in palliative home-care services; c) what illness beliefs do specialized palliative home-care nurses report to be helpful or not when taking care of families dealing with advanced/final stage cancer; d) how do nurses comment on their experiences of the advantages and drawbacks towards a family-oriented approach when including family members in specialized palliative home-care?

Methods

Study design

The study was conducted within the context of a specialized palliative home-care unit at the National University Hospital (LUH) in Iceland. In this quasi-experimental one group pre- and post-test design, a qualitative analysis of responses to open-ended questions was conducted to complement the analysis of the quantitative data. Two instruments both with open-ended questions were used to collect data from nurses pre and post-intervention; the Family Nurse Practice Scale (FNPS) and the Icelandic Health Care Practitioner Illness Beliefs Questionnaire (ICE-HCP-IBQ).

Overview of the advanced educational and training intervention programme (A-ETI programme)

The A-ETI programme was delivered by the research nurse who had taken a graduate course (advanced practice models for promoting healing with families in healthcare) in FSN. Each participant received: a) a short customized educational session in a small group b) face-to-face clinical mentoring before and after using a family-based approach and delivering a family-

oriented intervention in their clinical practice, c) supervised practice while providing family-focused care, d) opportunity to participate in clinical meetings; where the purpose of the meetings was to explore nurses´willingness to question and change practice, also to experience a collaborative learning context with the participants. The research nurse maintained in contact with the unit to offer coaching and to check on the progress. The participants were supported through the process of the pilot practice change with the research nurse engaged to meet the needs of the participant. Barriers that were identified throughout the process were discussed face-to-face or at the clinical meetings. The meetings were also an opportunity for the nurses to share their professional experience when including families in their daily clinical practice.

The A-ETI programme´s content

The primary focus of the A-ETI programme was to increase the palliative care nurses´ knowledge and skills in family nursing. The A-ETI programme included a short-session on the Calgary family nursing assessment and the intervention models (23). When taking part in the A-ETI programme in applying FSN in clinical practice, the main focus of the A-ETI programme was on the family nursing approach and offering interventions (e.g., conducting genograms and ecomap, offering therapeutic questions, drawing forward family strengths, and offering commendations). The programme´s content based on FSN was offered to participants; see further description in Table 1.

When offering the clinical supervision and coaching part of the programme, it provided valuable content for the implementation process. This process allowed the nurses to reflect upon the value of this approach to assess the family members experience of the situation as a unit of care and to tailor the interventions to various circumstances. It also allowed the nurses to share their views and concerns with the research nurse and to receive feedback.

The main focus of the KTA conceptual framework components´, is to promote a reduction in the gap between theory and practice. The adaption of the KTA model´s seven action phases (26: 471-81) guided the pilot-implementation process at the palliative home-care unit and is listed in Table 2.

Data collection

This study was conducted in 2017 (March-August). The entire population of palliative care nurses (eleven) at the specialized palliative home-care unit at the university hospital was invited to participate in the study, and all agreed. Information meetings were held providing oral and written information about the study. Two measurements were carried out, to collect the research data from the nurses, pre- and post with Family Nurse Practice Scale (FNPS) and Iceland Health Care Practitioner Illness Beliefs Questionnaire (ICE-HCP-IBQ).

Measures

Attitudes of palliative care nurses were assessed with the FNPS. This self-reported questionnaire is designed to measure perceived changes in family nursing practice including attitudes towards working with families, critical appraisal of their family nursing practice and reciprocity in the nurse-family relationship. The instrument consists of ten items with a five-point Likert scale format and five open-ended questions to measure the experience effects of the intervention. This scale was developed using the frameworks of FSN including the Calgary models. Reliability and validity have been demonstrated in a psychometric analysis (27). Cronbach´s alpha for internal consistency has been reported 0.85 (practice appraisal subscale) and 0.73 (nurse-family relationship subscale). In this study, the Cronbach´s alpha for internal consistency is 0.74 (practice appraisal) and 0.80 (nurse-family relationship) and 0.84 for the total scale.

The ICE-HCP-IBQ was used to capture and measure the palliative care nurses beliefs about their understanding of the meaning of the cancer illness situation for families in their care. The questionnaire is based on the Illness Beliefs Model (25) and is a self-report instrument. It is a reliable and valid instrument and was designed to explore illness beliefs among healthcare professionals in clinical or research settings (28). The ICE-HCP-IBQ is a seven-item five-point Likert-type scale and three open-ended questions. Cronbach´s alpha for internal consistency has been reported 0.91-0.92 28. In this study, the Cronbach´s alpha for internal consistency is 0.65.

Sample

A total of 11 nurses working in the palliative home-care unit responded to the questionnaires before participating in the education and training intervention programme. The nurses completed the questionnaires at two-time points; pre- and post-intervention. A total of 11

nurses responded to the FNPS after participating in the programme, and ten nurses responded to the ICE-HCP-IBQ (one of the nurses was no longer working at the palliative home-care unit at the second time point). Table 3 gives an overview of sociodemographics of the sample.

INSERT TABLE 3 ABOUT HERE

Quantitative data analysis

Data were analyzed using IBM SSPS Statistics version 22 (IBM Inc., Armonk, NY, USA). Descriptive statistics were used to describe the demographics of the participants and the background variables. Independent t-tests were used to compare baseline and time 2 mean scores of FNPS and the ICE-HCP-IBQ. The significance value and confidence interval for the difference between means with alpha was set at $p < .05$.

Qualitative data analysis

The FNPS includes five open-ended questions, and the ICE-HCP-IBQ comprises three open-ended questions. The data that were collected from these questions were analyzed using a Conventional Content Analysis (CCA) technique (29: 1279-81). This approach gives an opportunity for the analysis to be derived from the responses to the open-ended questions, e.g., direct information from study participants. The responses to all the open-ended questions were read repeatedly by the first and second authors to achieve intentness of the text (30). The responses were then read word by word in order to develop a coding scheme by finding repeated words in the text that seem to capture key thoughts expressed by the participants (29). The open-ended textual data was then emerged into categories and further to a few main categories illustrating key views on experiences expressed and grouped under the main themes (31). All the free text responses were coded independently by the first and second authors to assure trustworthiness and rigor. In attempting to achieve credibility for this analysis conducted, a peer debriefing method was used (32). The authors reviewed and discussed any differences until consensus was reached about the coding. The authors further studied the categories in order to examine the themes that emerged from the data and determine appropriate, meaningful phrases from the respondents´ comments.

Ethical considerations

The study was conducted with approvals of the Staff Ethical Board at LUH (No. 12/2016), the Scientific Ethical Board at LUH (No. 50/2013) and with the approval of the chief executive of

nursing and medicine at LUH. This study was reported to the Data Protection Authority (No. S6563/2013). All the participants gave their signed informed consent.

Results

Quantitative findings

There were significant differences found in the nurse's critical appraisal in all aspects (confidence, satisfaction, knowledge, skill, and comfort in working with families) of clinical nursing practice related to family nursing after participation in the A-ETI programme measured by the FNPS compared to before. The mean attitude score increased from pretest score of 4.109 to a post-test score of 4.418 ($t= 3.260$, $p <0.05$).

INSERT TABLE 4 ABOUT HERE

However, there was no statistical difference in items related to the nurses´experiences of interaction and reciprocity in the nurse-family relationship (planning care, promoting family participation, and recognizing biases and reciprocity in the therapeutic relationship) after participation in the program (post-test score 4.491) than compared to before (pretest score 4.327). Nevertheless, there was an overall significant difference found in the total score of the FNPS scale. The mean score increased from pretest score of 4.218 to a 4.455 post-test ($t=3,135$, $p <0.05$). These findings are demonstrated in Table 4 and support the hypothesis of the study that those who participated in the A-ETI programme in family nursing would have an increased positive attitude towards including families in their care than they had before participating in the A-ETI programme.

There was an increase found in the scores of nurse´s illness beliefs measured with the ICE-HCP-IBQ after participation in the A-ETI programme (post-test score 22.300) than compared to before (pretest score 20.800), but this difference was not significant. The increase in scores indicates that the nurses are more confident in their illness beliefs. These findings are demonstrated in Table 4. None of the sociodemographic characteristics (e.g., age, education, work experience) of the sample did significantly influence the attitudes or illness beliefs of the palliative care nurses.

Qualitative findings

The majority of the palliative home-care nurses responded to the open-ended questions on the FNPS at baseline and at time two. The content analysis of the answers aimed to determine whether the A-ETI programme had a positive impact on the nurses in relation to the provision

of family-based care in relation to knowledge, skills and beliefs. We identified three main themes from the thematic analysis which demonstrate the practical implications of the educational programme for the nurses, their views on benefits and barriers to adapting a family approach to their practice and the impact the educational programme had on their beliefs in relation to adopting a family approach.

Applying systematic family-oriented care in the palliative home-care daily practice requires developing a family nursing practice approach

Changes in Practice

The nurses´ narratives about family nursing in the palliative home-care unit revealed that many of them stated that a family-oriented approach was already being used as part of their daily practice. This may not be a surprise as all nurses were delivering specialist palliative care and to some extent were aware of the importance of including the family. Seven of the nurses were able to give an example from their recent practice demonstrating the importance of involving the family members when providing information about the patient condition. As one nurse reported; *„There was a new patient in our service who was terminally ill. His condition was deteriorating very fast, and we could see that he was dying. It was, therefore, necessary to sit down with the family and let them know what was coming. It was crucial to work fast.“*

However, when asked the same question after the A-ETI programme it was evident that participating in the programme had provided positive enforcement of a family-oriented approach and eight nurses commented on changes they had made in their practice and were able to give recent examples such as mapping who are in the family, feeling more responsible to be proactive in addressing the needs of the whole family, being more systematic, and providing forum for the family members to speak to each other.

Some of the nurses commented on their interpretation of the value of providing adequate family nursing actions/interventions and in what way it guided them in their daily practice. One nurse explained, *„I focus on the strengths and vulnerability of the family members much sooner in the care planning process to be able to support their needs.“*

More Effective Way of Working

The majority of the nurses who responded also reported that the service delivered by the palliative home-care team was more effective when using a systematic family nursing

approach. One of the nurses remarked after participating in the A-ETI programme, *„The members of the palliative home-care team are better informed. The family is better informed about the care planning and assessment of the overall situation.“*

The majority of the nurses commented on gaining more knowledge and skills related to family nursing practice after the A-ETI programme. As one nurse stated, *„I will now be more determined to invite the family to sit down together with the patient so that the team will be better informed about the needs of the family.“*

There are benefits and barriers to a family-oriented approach when including family members in specialized palliative home-care

The findings from the qualitative study also revealed the nurses´ perception of the specific advantages and drawbacks related to including family members in their care.

Before participating in the A-ETI programme nine nurses gave examples of advantages when caring for the family as a unit and in that sense expressed some awareness that this approach could be beneficial for the patient. However, after the A-ETI programme all the eleven nurses reported stronger awareness of the benefit of systematically integrating family approach into their care. The examples they gave were more focused and specific on the advantages for the whole family and how this approach had the potentials to enhance the quality of care. One nurse stated when answering the question about atvantages of including the family in their clinical care, *„More security, there is more consistency in the service provided, more capability of assessing the care needs, and enhanced quality of the service offered.“*

Six of the nurses reported examples of family-associated barriers regarding integrating families in their care, before participating in the A-ETI programme. There were also six nurses that gave examples of drawbacks when interacting with family members in palliative home-care, after the A-ETI programme. Although the nurses reported various issues and concerns both before and after the programme, their comments were more related to challenges to their professional practice when faced with conflicts within the family, after participating in the programme. As one nurse remarked, *„ There are really no barriers, only challenges for the nurse.“*

Nurses´ beliefs have impact on their sense of professionalism in relation to family-oriented approach to care

The third theme addresses the nurses beliefs and how this may or may not impact on a family approach to care. The nurses reported only facilitating beliefs related to the question around their own beliefs, and no hindering illness beliefs were mentioned.

The nurses´ narratives about what illness beliefs they reported to be helpful in the context of advanced/final stage cancer, the majority of the nurses reported examples related to family nursing care. This was the case both before and after participating in the A-ETI programme, however, more focus was on reporting having confidence in offering specific therapeutic interventions after the programme. As one nurse remarked, „*The family is also our client and needs support …. Our professional knowledge and the importance of coming to terms with the family in every situation"* and another nurse gave examples of helpful interventions delivered in daily practice, *„Therapeutic listening and assessing the care needs of every family."*

The majority of the nurses commented on the importance of providing care focusing on the family as a unit. This was also the case before the A-ETI programme, although after participating in the programme nurses commented on the importance of offering compassion and having respect for every situation they came to terms within their professional practice which they did not report before taking part in the programme. As one nurse reported, „ *How I support the family is part of the care I deliver. Cancer has an impact on the patient and also on his close relatives whom so often are the caregivers and therefore a crucial part of the care process. One has to take their experience and needs into account."*

Discussion

This study adds to the lacking evidence of research findings reported in the literature regarding the impact of an advanced educational programme in promoting family nursing in palliative home-care and how this can be translated into practice. This is the first study to our knowledge to explore with a mixed method the impact of an A-ETI programme on palliative care nurses knowledge, skills, attitude and beliefs in relation to using a family-focused approach to palliative care. The study found that an intervention following an A-ETI programme for participating nurses had a positive impact on their knowledge, skills and attitudes towards a family-oriented approach. This study also demonstrates a collaborative approach to an implementation process when assisting clinical palliative care nurses to translate critically appraised evidence into their daily practice with families (33). A partnership approach used in this study (34) has previously been emphasized in a pilot-

educational intervention study where the researcher aimed to help nurses understand the family illness experience within an adult critical care context (35).

These findings illustrate a significant positive impact of the A-ETI programme on participants attitudes towards family nursing practice. The results from the open-ended qualitative questions from the FNPS in this study support these significant quantitative findings and revealed the importance of this qualitative data. The results from the open-ended questions from the ICE-HCP-IBQ also revealed valuable information about beliefs that influence the palliative care nurses´ practice with families in advanced/final stage cancer care.

The results of this study are similar to two previous studies that demonstrate a significant effect of educational programmes, on nurses´ knowledge of family nursing and attitudes towards involving family members in their care (36, 37). It is nevertheless difficult to compare the findings in this study with these results as there is a difference in care settings, study designs, analysis, educational approach, and instruments. It can, however, be suggested that regardless of these differences, an educational and training program can be effective in improving nurses appraisal of family nursing.

In this current study, the participation in the A-ETI programme enabled participants to become more aware of the importance of approaching the family as a unit of care and enhancing positive attitudes towards family nursing. Furthermore, participants improved knowledge in a family-oriented approach influenced their clinical competence in supporting the family as a unit. The qualitative findings demonstrated that the nurses were also more positive about the further development of their knowledge and skills in delivering family nursing in palliative home-care.

This study demonstrates evidence which shows when nurses with expertise in specialized palliative care take part in an advanced educational programme with clinical supervision, and this advances family nursing practice. The findings revealed some positive effect of the process and the majority of the nurses reported an increased critical appraisal of family nursing. Their answers to open-ended questions also suggest that they are motivated and willing to apply their knowledge and skills in family-oriented approach in their clinical practice. It is therefore of much importance to focus future research on how to successfully integrate and sustain these changes to the palliative care nurses´ daily practice.

Limitations

This study had several limitations. This study used a one-group, pre- and post-intervention design without a control group. The sample size is small, although the entire palliative nursing population at the university hospital was used. The small sample size decreases the statistical effect and may lead to an underpowered approach. Generalizability of the results is therefore limited. However, having both quantitative and qualitative data strengthened the approach

Conclusions

The A-ETI programme demonstrated a positive change in palliative care nurses knowledge, skills, attitudes, and motivation of involving family members based on FSN in their care services. Family members may also benefit from this change in care approach, and it is therefore of importance to include them in further development and implementation of supportive family nursing interventions in palliative home-care. Future studies should focus on evaluating the impact of educational programmes on the sustainability of FSN practice change, which continues to present a challenge. There is also a need for future research to get feedback from the patient and the family members who are receiving care from the participating nurses to determine the impact on the quality of family-oriented care.

Author contributions

All authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE [http://www.icmje.org/reommendations/]):

1. Substantial contributions to conception and design, acquisition of data or analysis and interpretation of data.

2. Drafting the article or revising it critically for important intellectual content.

Ethical approval

Ethical approval was granted for the study by the Staff Ethical Board at LUH (No. 12/2016), the Scientific Ethical Board at LUH (No. 50/2013) and with the approval of the chief executive of nursing and medicine at LUH. This study was reported to the Data Protection Authority (No. S6563/2013).

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Table 1. Educational intervention protocol

Content of the A-ETI programme	Learning objectives	Learning activities
Theory and the evidence base for improving nurses´ knowledge in family nursing/including families in their care	The theoretical underpinnings of supporting family members in palliative care	Group discussion and dialogue among the palliative care nurses and research nurse
Relational value of implementing family nursing practice in palliative home-care	Nurses provided with the evidence base of implementing family nursing interventions into clinical practice	Group discussion of the clinical value of implementing family nursing into clinical practice in the palliative home-care unit
Family nursing practical skills used in clinical practice with families in palliative home-care	Encourage and teach the palliative care nurses to use relational interventions when interacting with the family in their care. Clinical application of combining theory and skills in family nursing	Preparing and offering an evidence-based intervention grounded in the family systems nursing literature. Offering two sessions of a family strengths-oriented therapeutic conversation intervention to one family and using a family-based approach for the family and patient receiving palliative home-care

Table 2. The seven steps of the Knowledge Translation Action (KTA) cycle (26: 473-81)

Step 1: Identify the problem, review, select knowledge to be implemented
The palliative care nurses had prior to the advanced ETI programme participated in a generalist ETI-programme at the university hospital. They had also participated in an introduction of results from a recent family-oriented intervention study in supporting caregivers and other family members in palliative home care. The results from that study were further presented and discussed. The advanced ETI programme for palliative home-care nurses was presented and discussed at a clinical meeting. The next step in the process was a pilot implementation phase, where all the nurses gave their consensus to participate. Data was collected from the baseline questionnaires.
Step 2: Adapt knowledge to local context
The nurses participated in a short advanced education programme in small groups (the education offered in the programme ranged from 4 to 6 hours depending on the need of each participant). The Calgary Family Models and the Beliefs and Illness Model provided the theoretical underpinning of the educational programme as these models view the family as the unit of care.
Step 3: Assess barriers/support to knowledge use
A specific effort was put on the most important barriers of the family systems approach practice´s; the different beliefs/attitudes related to the role of the nurse and issues regarding family care, priorties regarding time and care of the patient, various types of educational and training programmes of the approach and lack of coaching when implementing family nursing care 26. These mentioned barriers were taken into account in the whole process of the advanced ETI-programme.
Step 4: Select, tailor, implement intervention
The facilitators role; the nurse researcher supported the palliative care nurses in the implementation process and guided the team through the KTA phases.
Step 5: Monitor knowledge use
The palliative home-care nurses reported their preparations for each part of the pilot-implementation process. They were offered a discussion with the nurse researcher before and after each home-visit/session where the palliative care nurse offered a family strengths oriented therapeutic conversation intervention.
Step 6: Evaluate outcome
During the course of the implementation process which was carried out through the advanced ETI-programme and at the clinical meetings, the palliative home-care nurses reflected and discussed various strategies regarding the family nursing approach in their clinical context. Data from the questionnaries were analysed and discussed.
Step 7: Sustain knowledge use
A very important strategie to promote motivation to sustain changes in family nursing practice was the positive feedback the nurses received from the family members and the patient when delivering the family nursing intervention. This positive feedback was validated and discussed at the second clinical meeting.

Table 3. Demographics (N = 11)

Variable	n
Age	
< 50	4
> 50	7
Years in Nursing	
5-15	5
> 15	6
Years of Palliative Care Experience	
< 6	4
6-15	5
> 15	2
Highest Nursing Degree Earned	
Bachelor´s Degree	3
Bachelor´s Degree & Diploma in palliative care	4
Bachelor´s Degree & Diploma	4

Table 4. Independent t-test of attitudes of the nurses (N=11) and illness beliefs (N=10) before and after implementation of the A-ETI program

	Baseline	**Time 2**		
Outcome	**Mean (SD)**	**Mean (SD)**	***t-test***	***p value***
Practice Appraisal	4.109 (0.326)	4.418 (0.289)	-3.260	0.009
Nurse Family Relationship	4.327 (0.500)	4.491 (0.432)	-1.526	0.158
Family Nursing Practice Scale-total	4.218 (0.374)	4.455 (0.221)	-3.135	0.011
Health Care Practitioner Illness Beliefs	20.800 (3.119)	22.300 (3.622)	-1.218	0.254

Significant level of $p < 0.05$.