

Family Health Conversations Versus Support Group Conversations When a Family Member Has Been Critically Ill: A Mixed Methods Study

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Family health conversations versus support group conversations when a family member has been critically ill. A mixed method study.

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Abstract

Introduction: When a family member has been critically ill and cared for at an intensive care unit the individual family member as well as the family system are affected and in need of support. The aim of this study was to compare and contrast the responses from two different types of follow-up interventions for families of critically ill persons, focusing on individual hopes, health-related quality of life, family functioning and ability to cope with challenges.

Methods: Adult family members from three hospitals attended one of two interventions two months after intensive care. The family health conversation included the family. The support group conversation included just family members and not the patient who had experienced intensive care. Data were collected via self-reported questionnaires and follow-up interviews with family members. Quantitative and qualitative data were first analyzed separately, and the results were then integrated through mixed methods analysis. **Results:** A total of 38 family members took part in the interventions. Family members in the two intervention groups talked about how they had more hope for the future, and about how talking within the family and the group had helped them justify their feelings, which empowered them in the transition toward a healthier quality of life. Comparisons of the interventions show a higher significance of family function and hope in the family health conversation. **Discussion:** The article illustrates a disparity between how family members function and the needs they have for follow-up. We discuss what kind of follow-up these persons need.

Keywords: Family members, Family nursing, Family relations, Intensive care, Mixed methods

Introduction

Family members experiencing critical illness and intensive care (ICU) may lose hope and have reduced health-related quality of life (Griffith et al., 2018; Alfheim et al., 2019; Orwelius, Kristenson, Fredrikson, Walther, & Sjöberg, 2017a; Heyland et al., 2018). Past studies have found that for family members of critically ill ICU patients, the prevalence of anxiety was 15 - 24%, depression was 4.7- 36.4%, and PTSD was 35- 57.1% six months after ICU discharge (van Beusekom, Bakhshi-Raiez, de Keizer, Dongelmans & van der Schaaf, 2016). From a system level perspective, the family may find it difficult to function or to cope with challenges, such as reduced family well-being and family function, high stress, and low mental health (Agren, Eriksson, Fredrikson, Hollman Frisman, & Orwelius, 2019; Alfheim et al., 2019; Kynoch, Chang, Coyer, & McArde, 2016). This implies a need for follow-up for families with a family member who has been cared for in the ICU.

There is international consensus concerning the need for ICU follow-up, although there is no consensus on the best model (Jonasdottir, Jones, Sigurdsson, & Jonsdottir, 2018; Rosa et al., 2019). Countries have different approaches to follow-up after ICU, and on whether to involve family members who visit the patient (Jonasdottir, Klinke, & Jonsdottir, 2016). Some ICUs give family members the opportunity to talk to a medical social worker, while others have open-session meetings for families (Lasiter, Oles, Mundell, London, & Khan, 2016; Peskett & Gibb, 2009). In Sweden, the main purpose of follow-up clinics is to give the ICU patient information, and to follow up on the patient's experiences and well-being (SIR, 2020). Sometimes the former ICU patient is too ill to attend the follow-up clinic or does not consider it necessary. Research shows that family members could still benefit from follow-up (Ahlberg, Backman, Jones, Walther, & Hollman Frisman, 2015; Vandall-Walker & Clark, 2011). A study made in the ICU with family function outcomes shows that the intervention known as the family health conversation; a family nurse lead conversation, improves family

well-being by improving family function, reducing stress, and promoting better mental health (Agren, Eriksson, Fredrikson, Hollman Frisman, & Orwelius, 2019). The family health conversation has also been used and evaluated in families at a residential home (Dorell, Isaksson, Östlund, & Sundin, 2017), and by families living with various chronic diseases (Benzein, Olin, & Persson, 2015; Sundin et al., 2016; Östlund, Bäckström, Saveman, Lindh, & Sundin, 2016). Overall using these interventions show positive health-related outcomes for family well-being and functioning.

We are interested in whether support to family members, excluding the patient, in the support group conversations is equivalent to support offered to the family, including the patient, in the family health conversation in terms of individual outcomes and family system outcomes. Family health conversations that support the family members of critically ill patients, have previously been shown to put the family system in focus, when identifying and resolving issues that affect family functioning (Ahlberg, Hollman Frisman, Berterö, & Ågren, 2020). Support group communication has been shown to facilitate the process of shouldering the burden of being a partner of an intensive care patient (Ahlberg et al., 2015). Using the concepts and measurements of hope, health-related quality of life, family functioning and ability to cope with challenges we hope to capture the importance of follow-up with family-focused care. Therefore, the aim of this study was to compare and contrast the responses from two different types of follow-up interventions for families of critically ill persons, focusing on individual hopes, health-related quality of life, family functioning and ability to cope with challenges.

Methods

Design

A mixed methods study design (Creswell, 2014; Tashakkori & Teddlie, 2010) including data from interviews and questionnaires, was used to explore and compare the two interventions: *Family health Conversations* (FamHC) and *Support group Conversations* (SGC). Each type of data was first analyzed separately and then integrated at the interpretation and reporting level by means of mixed methods analysis (Fetters, Curry, & Creswell, 2013).

Participants

Two different general ICUs were involved in the FamHC intervention: one regional hospital and one university hospital in Sweden. The participants in the SGC intervention had experience of another general ICU in a regional hospital. There was only one intervention ongoing during this time. The timeframe was first the FamHC intervention and after that the SGC intervention.

Former critically ill patients and their family members were consecutively recruited to the interventions. Nurses working at the ICU follow up clinic called the participants. Eligible ICU patients received a mail request to participate two months after their ICU care and indicated which family members could be asked to participate. Family members were defined as anyone the patient considered as belonging to the family (Whall, 1986). The criteria for inclusion in the two interventions were being cared for in the ICU for ≥ 72 hours and ≥ 18 years old or being a family member ≥ 18 years old.

The Ethics Review Board in Linköping approved the study (record no. 2013/228-31, 2015/367-31, 2016/292-32, 2017/164-32, and 2018/572-32). Written informed consent was obtained from all family members, and the research was carried out in line with the

Declaration of Helsinki (WMA, 2013). Data was coded, saved, and stored under current rules to prevent personal identification (Regulation (EU) 2016/679).

Interventions

The theoretical background of the two interventions was the Calgary Family Assessment and Intervention Model (Wright & Leahey, 2013), and particularly the Illness Beliefs Model (Wright & Bell, 2009), which is theoretically based on constructivism, cybernetics, and system, communication and change theory (Wright & Leahey, 2013). Both interventions are framed within family-focused care which can be described in two ways; family-centered and family-related. (Benzein, Hagberg, & Saveman, 2008; Wright & Bell, 2009; Wright & Leahey, 2013). The interventions are focused on relational patterns/family interaction patterns, but the FamHC takes the family's perspective, while the SGC takes its starting point from individual family members' perspectives on these patterns.

The FamHC model has been culturally adapted to Swedish conditions (Benzein, Hagberg, & Saveman, 2008). The conversations focus on the family's resources and acknowledge the experiences and perspectives of each participating family member. Each person is invited to tell their story and listen to the stories of the other family members. The reflective questions the nurses ask encourage alternative ways of thinking about the family's situation and their ability to cope with challenges. This helps the family function more effectively (Benzein et al., 2008) (see Figure 1).

The SGC intervention involves members from different families, excluding the patients cared for in the ICU. The purpose of SGCs is for family members to get together to talk about, and listen to, what family members from various families have felt and experienced in relation to having had a critically ill family member in the ICU. The conversation focused on

the family experiencing the critical illness, but the patients' experiences were not requested. (see Figure 1).

Four ICU nurses working at the ICU follow-up clinic, with university training in FamHC, performed the interventions FamHC and SGC.

Data collection

Data was collected at base line (questionnaires) and at three months post-intervention (interviews and questionnaires) (Figure 2).

Follow-up interviews

Participants were contacted by telephone to schedule the interviews. The four interviewers were female, had long experience, and were well trained in research interviewing. They had not been involved in the allocation of the groups, the interventions or in the ICU care. The interviewer knew during the interview which intervention the participant/participants had attended.

Use of a semi-structured interview guide (Kallio, Pietilä, Johnson & Kangasniemi, 2016), developed by the research team and the interviewers contributes to the trustworthiness of the qualitative research method. The interview guide comprised open-ended questions focusing on family members' experiences of the interventions. The starting question was: Would you please tell me how you experienced the intervention? The families were then asked to describe the significance of the conversations for family well-being, family functioning and individual experiences of stress and hope. Probing questions were used to further explore the participants' various experiences. Family interviews (Eggenberger & Nelms, 2007) were performed in the families' homes with the families that had participated in the FamHC intervention. The family members in the SGC intervention were interviewed individually; one interview was conducted in a consultation room at the hospital, two by telephone and 15

through video calls. The interviews varied between six and 60 minutes and the mean length was 25 minutes (family interviews) and 15 minutes (individual interviews).

Questionnaires

The questionnaires were individually scored, regardless of focus level (individual or family/systems). The mode of administration was through letters sent by mail to the participants, with a prepaid addressed envelope to return. Background data were collected using a self-administered questionnaire which asked about sex, age, employment, and the patient's stay in the ICU.

The General Functioning Scale (GFS) was used to measure overall family functioning. The GFS is a sub-scale within the Family Assessment Device, FAD, and measures interactions within the family (Epstein, Baldwin, & Bishop, 1983). It is a summative scale with 12 items, where the total score is the mean of all items, ranging from 1 to 4. Scores < 2 indicate that family functioning is good. The reliability of the Swedish version has shown an ordinal alpha value of 0.92, (Bylund, Arestedt, Benzein, Thorell, & Persson, 2016).

The Family Sense of Coherence Scale (FSOC-S) assesses the extent to which the world is seen as comprehensible, manageable, and meaningful, focusing on the family to manage the new situation. The FSOC-S consists of 12 questions. The highest score is 12, with a cut-off score of 4, where a higher score indicates a stronger sense of coherence (Antonovsky & Sourani, 1988). Reliability testing of the Swedish version has shown an alpha value of 0.91 (Mollerberg, Arestedt, Sandgren, Benzein, & Swahnberg, 2020).

The Herth Hope Index (HHI) measures hope on an individual level (Herth, 1992). The HHI has 12 items using a four-point Likert scale. The highest score (range 12–48), indicates high levels of hope. The reliability of the Swedish version (S-HHI) has shown an alpha value of 0.88 (Benzein & Berg, 2003).

The Research and Development (RAND-36) and the Medical Outcome Short-Form health survey (SF-36) are two equivalent scales assessing the health-related quality of life of the individual. The scales assess eight health concepts on a multi-item scale with 35 items. An additional, single item assesses change in perceived health during the last 12 months. Scores range from 0 to 100, where higher scores indicate better health-related quality of life (Hays & Morales, 2001; Stewart & Ware, 1992). The SF-36 was used in the FamHC intervention and the RAND -36 was used in the SGC intervention. RAND-36 is used for entering ICU patients into the Swedish Intensive Care Register, which previously used the Medical Outcome Short-Form health survey (SF-36). Both questionnaires were used in this study, and they can be analyzed together, as we collected data during different years (SIR, 2020). The Swedish-language version of the RAND-36 has been validated and has a reliability of α 0.86-0.97 (Orwelius et al., 2017b).

Data analysis

Statistics

The questionnaire data were coded and entered into the Statistical Package for the Social Sciences version 25.

Univariate methods were used to describe the sample. An independent t-test, or one-way ANOVA, was used to compare background variables within the two intervention groups. The patients were removed from the final analysis to enable the data to be compared between interventions. The base 10 logarithm function was used for normally distributed data because of intra-family correlations (Altman, 1991). The difference between three months and baseline was calculated and then analyzed using the linear mixed-effects model to adjust for the covariance structure of the data (Field, 2013). The level for statistical significance was set at $p < 0.05$. A statistician was involved in the data analysis (MF).

Qualitative analysis

The transcribed follow-up interviews from the SGC and FamHC interventions were analyzed separately using narrative analysis (Lieblich, Tuval-Mashiach, & Zilber, 1998). The analysis had five components (see Fig. 3). The transcribed interviews were repeatedly read, summarized, and analyzed separately by the authors. The authors discussed their analyses until consensus was reached (Lieblich et al., 1998).

Mixed methods analysis

The quantitative and qualitative results were integrated using mixed methods and are shown according to the purpose of introjections between methods: recasting the results of qualitative narrative analysis in the FamHC with quantitative results, looking for contradictions and/or new perspectives. The results from the SGC data were analyzed in the same way. The total results from the FamHC data were then cross-validated with those from the SGC data (Greene, Caracelli, & Graham, 1989; Tashakkori & Teddlie, 2010) (see Figure 4).

Results

Participant characteristics

A total of 38 family members, took part in the SGC intervention. Seventeen members of seven families participated in the FamHC intervention (including the patient), and 21 members of 13 families (excluding the patient). There was a statistically significant difference ($p = .028$) in ICU stay of the two intervention groups: the mean stay in the FamHC intervention group was eight days while in the SGC intervention group it was 13 days. More females in the FamHC and more participants in this group were unemployed or were receiving a pension. (Fig. 1 & 2: Table 1).

Findings concerning the FamHC intervention

The findings from the follow-up family interviews indicated that families functioned better than before the intervention. When they talked and listened to each other, they noted differences in their experience of the illness, including how they viewed the ICU stay. By making these differences visible, a greater understanding developed within the family. These results were validated in the GFS questionnaire assessments, showing that families functioned better after the intervention ($p=0.042$) (GFS, Table 2).

Families' experience of being able to talk about different issues regarding the ICU stay, and how these had affected them, changed within family talk, as did the way they talked with others about their feelings. This change in communication patterns can be linked to results from the quantitative analysis of the social functioning sub-scale (SF36) showing an increase in family members' ability to function socially ($p=0.049$) (SF36/SF, Table 2).

The families stated that they were doing their best to manage the new situation together, as a family. This experience of support and concern can probably be associated with the statistically significant improvement ($p=0.040$) in family members' mental health (SF36/MH, Table 2).

Findings concerning the SGC intervention

The family members who took part in the SGC group felt more empowered by exchanging experiences of critical illness. Hearing about and reflecting on how other family members had made their everyday life work made it easier to understand how their own family could also cope. The perceived consequences for family life, and successful management of family stress associated with family coherence, were validated in the statistically significant positive values of scores in the FSOC-S total, ($p=0.001$), the FSOC-S comprehensibility sub-scale ($p=0.033$) and the FSOC-S meaningfulness sub-scale ($p=0.001$) (Table 2).

Family members acknowledged that they played an important role in the recovery of the critically ill member of the family by developing a better understanding of their own and others' ongoing transition from critical illness. The strength of the family members' new perspectives was confirmed by increased meaningfulness ($p=0.001$) in the FSOC-S over time and for the individual outcome "vitality" ($p=0.012$) in RAND (Table 2). This could indicate that family members had more energy and were more active.

Participants in the SGC intervention talked about how they were affected and how they now took their own life and health-related quality of life more seriously. The analysis of the GFS scores showed a significant difference ($p=0.000$) between baseline and three months, indicating that family functioning was worse at follow-up, and below the cut-off for unhealthy functioning (Table 2).

Hope scored individually by the S-HHI questionnaire showed a significant ($p=0.002$) decline over time. Also, the RAND scores for ability to function physically ($p=0.006$) and socially ($p=0.001$) were significantly reduced over time (Table 2).

Comparison of the FamHC and SGC interventions

The family ability to function differed among the intervention groups ($p=0.001$) (Table 2), and the triangulation shows that a family's ability to function improved in the FamHC intervention and decreased in the SGC intervention.

The follow-up interviews illustrated that participants talked about how the FamHC intervention had influenced the family: *"The conversations require the attention of the whole family and everyone is allowed to be heard, without anything said being branded strange or deviant."* (FamHC 7). However, the SGC follow-up interview indicated that family members talked about how the intervention had influenced them as individuals: *"The conversations gave me the opportunity to get a perspective on what I experienced, as well as the problems*

that might arise with her, because she hadn't seen or understood everything. And just the opportunity to take a step back and look a bit at my process and reflect on it in terms of the others' experiences" (SGC 17).

Differences in levels of hopefulness between the intervention groups were also significant ($p=0.016$), where triangulation showed that hope increased in the FamHC intervention and decreased in the SGC intervention. A family member in the FamHC group said in a follow-up interview: *"It opened you up to things you were 'hiding from', things you didn't really know how to confront or bring up. The conversations helped us family members talk about these things without them getting out of proportion" (FamHC 3).* A family member in the SGC intervention mentioned the following: *"Sometimes you are so full of your own thoughts and feelings, and you're having a hard time yourself, so it's difficult to take in how others feel, and even if we talk, you still have very strong feelings of despair" (SGC 19).*

Family members in both the SGC and FamHC interventions talked about having their feelings endorsed, and described a sense of how they as individuals or as a family had felt accepted in their feelings. The follow-up interview in the FamHC group indicated that family members showed more concern for each other and felt the family had become more communicative: *"The talks give the individual family members insight into how the others in the family experienced this incident with someone being seriously ill and being cared for in the intensive care unit. You relate your experiences and get to listen to how others experienced the same thing but in a completely different way." (FamHC 6).* A family member in the SGC intervention gave the following comment: *"It's so nice to hear that there is life on the other side. In other words, it will be better and it ... that you can see the light at the end of the tunnel and can enjoy the time and the days that remain" (SGC 22).*

None of the measures in SF36/RAND or FSOC-S showed a significant difference between the intervention groups.

Discussion

The findings showed that the two interventions differed in their responses, where the FamHC intervention mainly increased interactional aspects and individual hope while the SGC intervention increased family members' sense of family coherence and individual vitality.

Analysis of the questionnaires and follow-up interviews showed that families functioned better after FamHCs. This could only be speculated about; it could be because they had discussed their experiences together in the FamHC. They had shared and developed an understanding of the life worlds within the family. Another study involving parents of children in the ICU shows the importance of follow-up for increasing family functioning (Nelson, Lachman, Li, & Gold, 2019).

Family members' mental health and ability to function socially might also have improved because they had discussed their feelings within the family. Family members were thus better able to tell others about their experiences and discover how the others within the family felt. This assumption is supported in findings from a qualitative study with follow-up interviews after FamHCs (Ahlberg et al., 2020).

Family members' assessed hope showed a decrease three months after taking part in SGCs. There was deterioration in health-related quality of life, defined as the ability to function physically and socially, which may also help to explain the decrease in hope found in this group. This is an important lesson to follow up, as is the fact that family members, as well as

the critically ill patient in the family, could find follow-up useful. Family support groups were shown to provide a supportive environment, mutuality, and a sense of belonging, and met needs for community, unconditional acceptance, and information provision for the participants (Kirshbaum-Moriah, Harel, & Benbenishty, 2018).

Although the findings of the follow-up interviews showed a deterioration in levels of hope, family members nevertheless talked about how hopeful they had become by talking and listening to others with similar experiences. They felt renewed, knowing that others had the same feelings, had gone through almost the same experience and were now living with good relationships within the family. The quantitative and qualitative data collection was carried out at the same time, but perhaps the scale HHI operationalizes hope in a different way to that described by the informants in the interviews. In a qualitative study with family members who had sat with a traumatic coma patient, hope was the most prominent theme, and was found to fluctuate (Verhaeghe, van Zuuren, Defloor, Duijnste, & Grypdonck, 2007).

Why do the two interventions differ? There are several possible ways to explain the difference. Firstly, in the FamHC group the family talked and listened to each other, whereas in the SGC study, the participants only talked to members of different families. In the SGC group, family members had the chance to talk to other families and hear about their experiences, but they did not have the opportunity to hear responses within their own family. There are incentives to continue to explore ways in which related aid will be offered in order to benefit former ICU patients and their families. Conversations with others are not detrimental to the family, but it is important to note that each family member has different needs. The critically ill patient in the family may not wish to talk about the critical illness, or may not be able to, because of their illness and/or mental health (Anderson, Arnold, Angus, & Bryce, 2008; Bolosi et al., 2018). A Cochrane review looked at differences between types of ICU follow-up but found insufficient studies to be able to assess the differences and

recommended further investigation (Schofield-Robinson, Lewis, Smith, McPeake, & Alderson, 2018).

Another second source of difference may involve the fact that follow-up interviews in the FamHC group took place with the whole family, but only involved individuals in the SGC intervention. A family's ability to function is hard to determine by asking only one family member, even if families sometimes express their views more openly on this subject in individual settings (Astedt-Kurki, Paavilainen, & Lehti, 2001). The time difference and different forms of interview may also contribute to different outcomes (Jack, 2008).

Time differences in the interventions may also be a reason for different outcomes. Perhaps the SGC participants would have yielded the same results as the FamHC group if they had had the opportunity to attend three conversation-group meetings. The time differences in terms of data collection could also be a reason for the different outcomes, along with the fact that the critically ill patients in the SGC group had longer ICU stays and might therefore have been in more need of care and rehabilitation. These differences between the intervention groups have to be regarded as a study limitation, making the outcomes hard to compare. Thus, differences in characteristics between the two groups may also provide a way of understanding the differences in the outcomes.

The results from one method were clarified against the results from another, and the range and breadth were extended using the most appropriate method for the multiple components. Validity was improved by investigating the convergence, corroboration, and correspondence of the results from the different methods.

It is important to understand which intervention has the best outcome for both patients and family members. However, finding the best ICU follow-up or mix of follow-up methods that best target the problem areas experienced by the family members/family will require more

research. In order to provide the conditions for the family to be involved in the care of their loved one and maintain family function, the health care system should offer a more family-focused form of care.

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Table 1. Characteristics of family members in the FamHC (patients excluded) and family members in the SGC.

	FamHC (family members - patient, n=10)	SGC family members, n=21)	p-value	The Fisher exact test
Age, years (mean ± SD)	53 ± 18	59 ± 14	.357	
Female gender, n (%)	7 (78)	12 (57)	.299	0.419
Employment, n (%)			.247	0.427
Full time/part time	3 (33)	12 (57)	ns	
Pension/disability pension/sick leave	6 (67)	9 (43)	ns	
Number of groups	7	7	ns	
Mean stay in the ICU for the patient in days	8	13	.028	
Numbers of families participating	7	13		

Table 2. Comparison within and between the two intervention groups from baseline to 3 months. The numbers (No) are full scored questioners that are taken in account for the analysis.

Questioners and dimensions		FamHC				p-Value	SGC				FamHC vs SGC
		Mean (SD)	No	Mean (SD)	No - patient		Mean (SD)	No	p-Value	p-Value	
GFS	Baseline 3-months	1.7(0.6) 1.5(0.5)	16 14	1.9(0.8) 1.6(0.6)	8 7	.042*/ .144**	Baseline 3-months	1.7(0.6) 2.8(0.5)	21 19	.000	.001***
FSOC-S	Baseline 3-months	39.6(8.7) 38.8(11.7)	17 14	41.2(3.6) 43.9(3)	8 7		.298*/ .709**	Baseline 3-months	41.1(2.2) 46.9(1.8)		21 19
<i>Comprehens ability</i>	Baseline 3-months	16.3(5.1) 15.3(4.5)	17 14	16.9(6.1) 17.6(5)	8 7	.330*/ .895**	Baseline 3-months	17.7(4.7) 18.7(4.2)	21 19	.033	.217***
<i>Manage ability</i>	Baseline 3-months	11.7(2.2) 10.9(1.9)	17 14	12(2.1) 12.1(1.9)	8 7	.183*/ .576**	Baseline 3-months	10.9(1.4) 10.7(1.9)	21 19	.895	.821***
<i>Meaning fulness</i>	Baseline 3-months	13.2(5.6) 12.6(6.6)	17 14	14.3(6.9) 17.5(6.1)	9 7	.739*/ .703**	Baseline 3-months	13.4(5.3) 14.1(2.5)	21 19	.001	.066***
HFI	Baseline 3-months	40.7(4.2) 41.5(5.5)	17 14	41.1(4.4) 42.6(5.7)	9 7	.076/ .071*	Baseline 3-months	38.5(6.4) 34.1(2.6)	21 19	.002	.016***
SF36/RAND											
<i>PF physical function</i>	Baseline 3-months	67.9(32.7) 73.2(25.2)	17 14	88.2(12.2) 78.6(26.4)	9 7	.703*/ .258**	Baseline 3-months	75.5(22.3) 53.9(17.2)	19 19	.006	.599***
<i>RF role function</i>	Baseline 3-months	45.6(44.4) 55.4(46.2)	17 14	61.1(48.6) 64.3(47.6)	9 7	.605*/ 1.00**	Baseline 3-months	76.3(36.8) 75.5(22.4)	19 19	.888	.375***
<i>BP body pain</i>	Baseline 3-months	59.2(27.6) 64.5(29.6)	17 14	65.1(25.3) 61.6(28.7)	8 7	.835*/ .398**	Baseline 3-months	75.1(21.2) 76.3(36.8)	18 19	.419	.073***
<i>GH general health</i>	Baseline 3-months	61.9(20.9) 66.9(21.7)	17 14	64.7(21.4) 75.1(21.2)	9 7	.357*/ .504**	Baseline 3-months	66.7(19.8) 69.6(21.3)	18 18	.141	.779***
<i>VT vitality</i>	Baseline 3-months	57.1(24.4) 65.7(22.2)	17 14	56.7(28.6) 66.4(22.7)	9 7	.160*/ .180**	Baseline 3-months	53.6(21.5) 66.7(19.8)	18 18	.012	.505***
<i>SF social function</i>	Baseline 3-months	61.8(30.8) 81.2(27.2)	17 14	68.1(36) 80.4(33)	9 7	.049*/ .466**	Baseline 3-months	69.4(29.8) 53.6(21.5)	18 18	.001	.110***
<i>RE role functioning</i>	Baseline 3-months	64.7(39.9) 76.2(33.1)	17 14	77.8(33.3) 85.7(26.2)	9 7	.533*/ .766**	Baseline 3-months	70.4(39.4) 69.4(29.8)	18 18	.882	.337***
<i>MH mental health</i>	Baseline 3-months	75.3(15.2) 85.1(11.1)	17 14	72.9(16.8) 81.7(13.8)	9 7	.040*/ .185**	Baseline 3-months	70.7(20.1) 70.4(39.4)	18 18	.963	.584***

No= Number of completed questionnaires

*p-value for comparison within group, mean over time; 3 months – baseline

**p-value for comparison within group, mean over time; 3 months – baseline without patient in the FamHC intervention.

***p-value for comparison between groups, mean over time, with 10 logarithm value between the two groups; 3 months – baseline, without patient in the FamHC intervention.

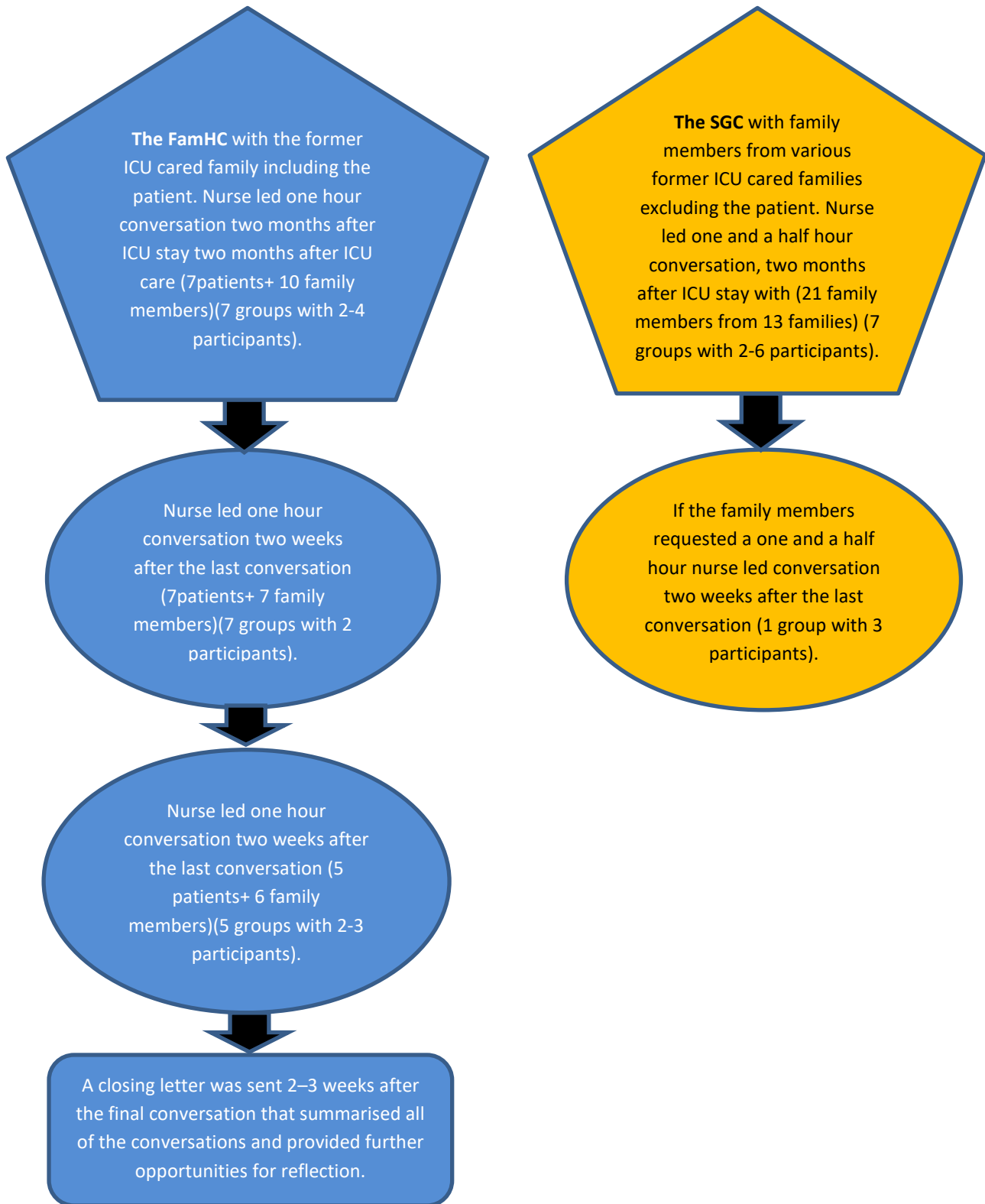


Figure 1. A flowchart showing the two interventions FamHC and SGC.

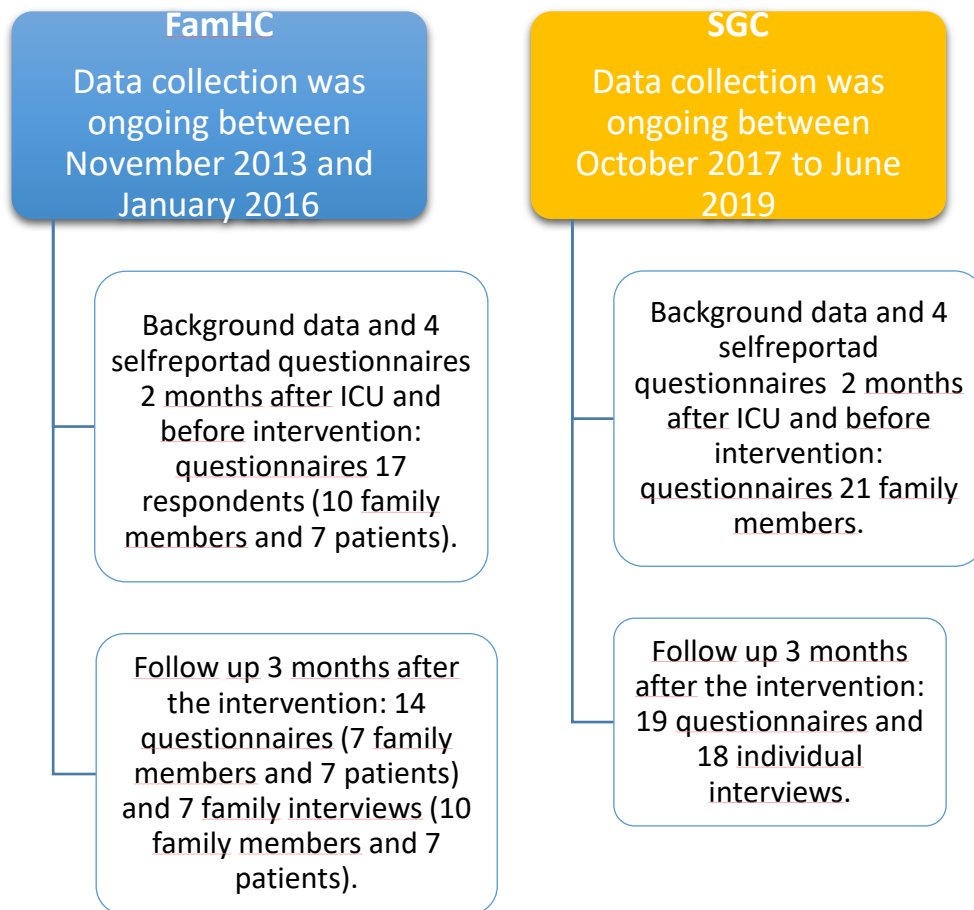


Figure 2. Data collection process and number of respondents.

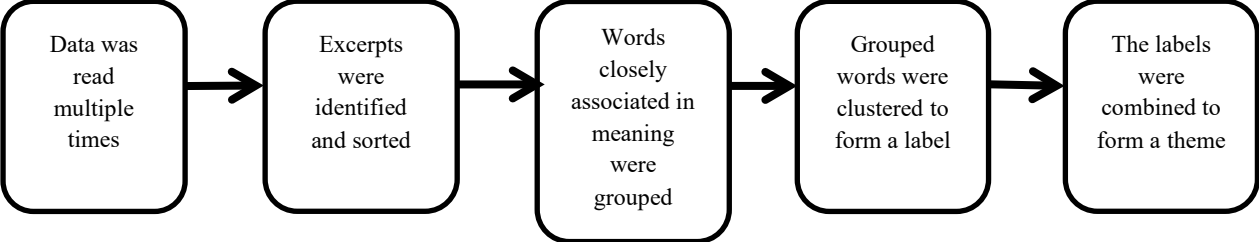


Figure 3. Narrative Analytical Process

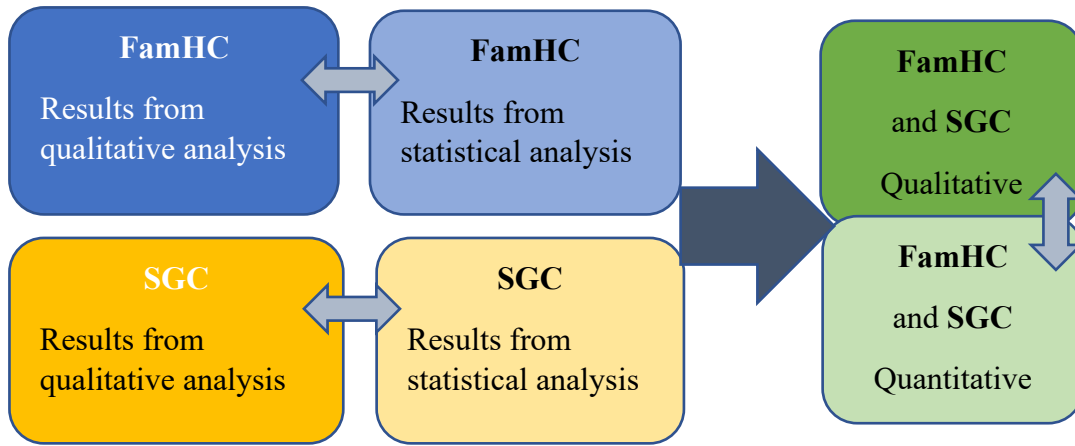


Figure 4. The process of mixed method analysis, showing the triangulation within and between FamHC and SGC.