

# Efficacy of the Use of the Calgary Family Intervention Model in Bedside Nursing Education: A Systematic Review

Michael Mileski <sup>1</sup>, Rebecca McClay <sup>2</sup>, Katharine Heinemann <sup>1</sup>, Gevin Dray<sup>1</sup>

<sup>1</sup>School of Health Administration, Texas State University, San Marcos, TX, USA; <sup>2</sup>School of Science, Technology, Engineering, and Math, American Public University System, Charles Town, WV, USA

Correspondence: Michael Mileski, Texas State University, School of Health Administration, 601 University Drive, Encino Hall—250, San Marcos, TX, 78666, USA, Tel +1 512 245 3556, Email mileski@txstate.edu

**Objective:** To objectively analyze the research for empirical evidence of the efficacy of the use of the Calgary Family Intervention Model (CFIM) in assisting bedside education by nurses and to identify facilitators and barriers to the use of the Model.

**Methods:** Four research databases (PubMed [MEDLINE], CINAHL, Web of Science, and Science Direct) were queried for studies commensurate with the objective statement from 1990 to 2021. In total, 169 articles were initially identified in the search, 135 were screened after duplicates and ineligible articles were removed, ultimately leaving the sample of 24 articles for the review.

**Results:** There is significant evidence to conclude that the CFIM is a very useful model to be used by nurses for bedside education and to improve overall patient and family outcomes. It enables communication, collaboration, and therapeutic conversations. The use of CFIM by nurses serves as a resource for both them and families and patients involved. There are some concerns to the use of CFIM as there are family dynamic issues, which result in problems providing care to patients. A lack of family sharing can result in inadequate care to the patient as well as unrealistic expectations from family members involved.

**Conclusion:** The CFIM is an excellent tool to enable nurses to provide education at the bedside and to enable improved patient and family outcomes. The use of the tool is suggested in situations where it would improve the level of care provided to patients and families.

**Keywords:** nursing, perceptions, family, patient education, family education

## Introduction

This systematic review examines the impact of utilizing the Calgary Family Intervention Model (CFIM) in bedside nurse intervention education and its impact upon patient and family compliance. Leahey and Wright's CFIM is derived from their Calgary Family Assessment Model published in 1994, which addresses daily behaviors individuals display in relation to one another and their role within the family.<sup>1</sup> The intervention focus of CFIM creates a framework that provides a theoretical basis for collaboration in care that is highly applicable to family member empowerment and improved respectful communication of care options.<sup>1</sup> CFIM can help develop bedside nurse understanding and support of family-centered protocols, by increasing nurse buy-in to implementing and supporting the family dynamic at the bedside.<sup>2,3</sup>

The CFIM Framework is based on the family functioning domains of cognitive, behavioral, and affective (Table 1).<sup>3</sup> The family opens space in their domains to accept changes proposed by the healthcare worker, which occurs more readily when bedside education is presented as an opportunity to support improved patient outcomes allowing family members to reflect and include the intervention into their functional system.<sup>1,4</sup> Research has shown the greatest change in family achievement occurs when the cognitive domain of thinking and feeling is addressed by an intervention.<sup>1</sup> The family must be engaged, educated, and invited to participate in order to alter their cognitive domain, which in turn creates behavioral domain change.<sup>3</sup> Choosing to accept an intervention allows the family to implement the change in their behavioral domain in a way that fits

**Table 1** CFIM Framework

Domain	Interventions offered by the nurse: "Fit" or effectiveness
Cognitive	Teaching new activities with rationales
Behavioral	Encouraging behavioral changes through structured actions
Affective	Protocol's positive patient and family outcomes

**Notes:** This table is adapted to illustrate the domains of family function and intervention fit. Adapted from McClay R. Implementation of the Family HELP Protocol: A Feasibility Project for a West Texas ICU. Healthcare (Basel). 2021;9(2):146. © 2021 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).<sup>2</sup> Data from Wright et al.<sup>3</sup>

with the positive aspects of their family function.<sup>5,6</sup> Thus, educating the bedside nurse through a family focus reinforces the centrality of family and promotes change in family functioning through the affective domain.<sup>2</sup>

## Rationale

While CFIM has been widely accepted and used by nursing for decades, the use of CFIM as a framework for providing bedside nurse education to implement changes that include the family perspective has not been published. The family visitation restrictions due to COVID-19 demonstrated the importance of family connection, acknowledgement, and participation in care decisions.<sup>7</sup> Using the CFIM domains as the focus of implementing family centric protocols supports nurse influence on personalizing care to the family and demonstrates the effectiveness of nurse effort to include families in patient care.<sup>6</sup> CFIM has been used in previous implementation studies with a good effect on maintaining family roles and connections central to interventions.<sup>4,8,9</sup> Providing education to nurses in a way that incorporates family function as central to interventions, supports medicine's shift toward family inclusion and the view that patients and families are not visitors in the room, but rather medical providers are stepping into their room.<sup>2,7</sup>

## Objective

The purpose of this research was to evaluate the CFIM as an effective tool for use by nurses in the aid of bedside education of patients and families.

## Materials and Methods

### Eligibility Criteria

To be eligible for this study, articles had to be published between January 1990 and December 2021 in only peer-reviewed, academic journals published in English. All study designs were accepted including both quantitative and qualitative. Other systematic reviews and meta-analyses were excluded from the study, as well as dissertations.

### Information Sources

Authors of this systematic review followed the Kruse Protocol for conducting a systematic review and reported results in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA).<sup>10</sup> This research was not registered.

### Search Strategy

Four databases were queried with a standard search string for this study: PubMed (MEDLINE), Web of Science, and Science Direct. CINAHL was also queried, but no results were found which were not duplicated in the other three databases. PubMed yielded 19 articles, Science Direct yielded 11 articles, Web of Science yielded 3 articles, thus yielding the sample of 24 utilized in the final sample. We created a three-string Boolean search specifically designed to present more articles for review than utilizing only Medical Subject Headings (MeSH) of the US Library of Medicine. The

search strategy was used across all databases. We used similar filtering strategies in each database, because not all databases offer the same filtering tools. The string utilized was (“Calgary Family Intervention Model” OR “CFIM”) AND (family OR families OR community OR communities) AND (educate OR education OR nurse OR develop OR train).

## Selection Process

In accordance with the Kruse Protocol,<sup>10</sup> we searched key terms in all databases, filtered results, and screened abstracts for applicability. Reviewers rejected articles if they were not research or did not produce results, such as study protocols, opinions, or commentaries. Studies were also eliminated, which did not speak specifically to the use of the Calgary Family Intervention Model in some form or fashion. Overall, the literature search, data extraction, and risk of bias assessments were completed by at least two reviewers, blinded to each other’s choices.

## Data Collection Process

We utilized an Excel spreadsheet as a data extraction tool collecting additional data at each step of the process. This spreadsheet was standardized in the Kruse Protocol.<sup>10</sup> A series of three consensus meetings were held. The first consensus meeting was held after abstract screening. Second and third meetings were held to identify observations and themes.

## Data Items

In accordance with the Kruse Protocol, we collected the following fields of data at each step in the process: participants, intervention, results compared to the control group, health outcomes, study design (PICOS), bias, effect size, country of origin, statistics used, strength of evidence, and quality of evidence. We further collected facilitators and barriers from each article. These data items and observations became the subject of the second and third consensus meetings.

## Study Risk of Bias Assessment

We observed bias and assessed the quality of each study using the Johns Hopkins Nursing tool for Evidence Based Practice (JHNEBP).<sup>11</sup> We considered the instances of bias in how to interpret the results as bias can limit external validity.

## Effect Measures

As we accepted mixed methods and qualitative studies, we were unable to standardize summary measures, as would be performed in a meta-analysis. Effect size was not reported in any study of the group for analysis.

## Synthesis Methods

During the screening process, reviewers compared elements of article abstracts against the objective statement for this review. Article abstracts which matched with the objective statement were marked for inclusion in the systematic review. The rest of this subheading is for meta-analyses—not for systematic reviews. Although the Kruse Protocol for conducting a systematic review uses elements of a meta-analysis, it falls short of this standard.

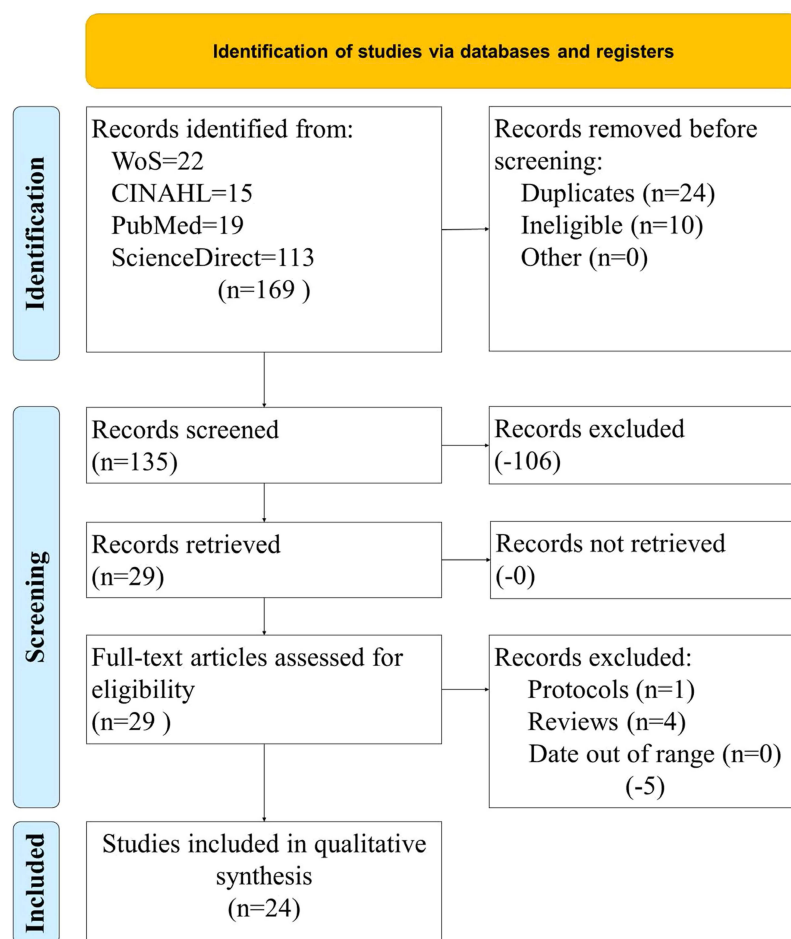
## Additional Analyses

We performed a narrative analysis of the observations to convert them into themes (common threads between articles).<sup>12</sup> We calculated frequency of occurrence and reported these via affinity matrices. This technique does not imply a level of importance of these observations, but it simply illustrates the probability of occurrence of these observations across the group for analysis.

## Results

### Study Selection

Figure 1 illustrates our study selection process from the four databases. A kappa statistic was calculated on levels of agreement between reviewers ( $k = 1$ , high agreement).<sup>13,14</sup>



**Figure 1** Study selection process.

## Study Characteristics

In accordance with PRISMA 2020, a PICOS table was created from the group of articles analyzed (see [Table 2](#)). Of the 24 articles analyzed for the manuscript, all studies spoke specifically to the CFIM in some aspect. Results across studies varied widely.

## Risk of Bias in Studies

The JHNEBP quality assessment tool identified the strength and quality of evidence in the literature. These are illustrated in [Table 3](#). Approximately 75% of the articles were of strength III and 88% were quality B. This means a vast majority of articles were qualitative, mixed methods, non-experimental or quasi-experimental in nature, but their quality was still strong. Panel A illustrates strength of evidence. Level II studies were quasi experimental in nature (no randomization). Level III studies were non-experimental studies or qualitative studies. As the information was very germane, we did accept one level V study, which was based in a quality improvement study. Panel B illustrates quality of evidence. Quality category B, research shows reasonably consistent results, sufficient sample sizes, some control, and fairly definitive conclusions. Quality category C shows lower quality studies based on relatively inconsistent results; however, they were included due to the small sample size and perceived importance to the study.

Reviewers independently recorded observations for each article commensurate with the objective statement. A thematic analysis was conducted to make sense of the data. When an observation was identified more than once, it became a theme. Themes were created to summarize the observations, but they did not always match the observations exactly. These themes can be observed in [Table 4](#), the summary of the analysis. Articles are sorted most recent to oldest.

**Table 2** PICOS (Participants, Intervention, Results, Outcome, and Study Design) Characteristics of the Included Studies

<b>P-I-C-O-S</b>						
<b>No.</b>	<b>Authors</b>	<b>Participants</b>	<b>Intervention</b>	<b>Results (Compared to Control Group)</b>	<b>Medical Outcomes Reported</b>	<b>Study Design</b>
9	Misto	60 family members, majority above the age of 56 and female.	CFIM	High levels of social support	None reported	Pilot study, convenience sample, questionnaire, qualitative study, survey.
15	Eggenberger and Sanders	Nurses of varying educational preparations and ages	Results of pre-intervention data collection from families and nurses	Increased confidence, knowledge, and skills	None reported	Pre and post mixed method design
16	Sveinbjarnardottir et al	Patients and family members from acute inpatient psychiatric units and other acute units	Short therapeutic conversation	Higher perception of cognitive and emotional support from the nurses than family members who received standard care	None reported	Pre-post
17	Misto	Registered nurses from medical-surgical units	Family Nursing Practice Scale	No control, comparison of responses based on demographics of registered nurses	None reported	Non-experimental, descriptive
18	Gisladottir and Svavarsdottir	Family members, parents, siblings, partners	Educational and support intervention, group sessions	Various results based on questionnaires used in study	None reported	Pre-post design
19	Menard and Saucier	Subject and family only	CFIM models	Family communication and enlightenment with support	None reported	Opinion
20	Arief and Rachmawati	Families and children	Parent empowerment program	Increase in positive family attitudes and family actions	None reported	Pre-post/pre-experimental research
21	Rempel	Various audiences	Applied CFIM interventions	Positive results overall	None reported	Non-experimental, descriptive recommendations
22	Clausson and Berg	School children, parents, nurses	Sessions held with families, using genograms, ecomaps, interventive questions	Triggered healing process, affective, cognitive, and behavioral changes, patient and family included	None reported	Pre-post design
23	Brumfield	High risk patients, patients who under/over use healthcare resources	Questions posed to the patient and family	Decreased readmission rates and ED visits. Positive rapport between the case management staff and patients	Decreased participants readmission rates and ED visits	Qualitative interviews, non experimental
24	Holtlander et al	Undergraduate nursing students	15-minute family interview	No control group for comparison	None reported	Non-experimental

(Continued)

Table 2 (Continued).

P-I-C-O-S						
No.	Authors	Participants	Intervention	Results (Compared to Control Group)	Medical Outcomes Reported	Study Design
25	Sigurdardottir et al	Families of children with asthma	Family therapeutic conversation intervention	Higher levels and perception of family support, cognitive and emotional support, better outcomes	Fewer reported problems with asthma treatment	Quasi-experimental intervention study, pre-post
26	Broekema et al	Female nurses (home health care and hospital)	6-day educational program utilizing FINC-NA (pre-post test)	Positive changes in attitude, knowledge, skills, and competence	None reported	Pre-post
27	Martinez et al	Nurses and families	In depth teaching sessions, hands-on coaching, 15-minute family interview	Perceptions of positive impact on ability to conduct family assessment and family interventions	None reported	Quasi-experimental, pre-test, post-test.
28	Simpson et al	Nurses (either psychiatric registered nurses or nursing officers)	Calgary Family Assessment Model (CFAM) and the Calgary Family Intervention Model	Significant changes in nurse confidence, satisfaction, knowledge and skill in family systems, as well as increased comfort working with families	None reported	Pilot study, pre-post design, qualitative
29	John and Flowers	Undergraduate and postgraduate nursing students	Workshops in family nursing	Family nursing more likely to be implemented where patients experience serious or life-threatening illnesses, staff are educationally prepared, there is ongoing mentorship, and management support for family nursing	None reported	Non-experimental, survey design
30	Choi et al	Parents and families of young children	FamilyAdapt-DS	Improvement in five family measures between pre and post test scores	None reported	Pre-post
31	Dorell and Sundin	Family members of those staying in residential homes	FamHC (Swedish version of the Calgary models)	Discovery of family members' problems and suffering, identification of family's resources and strengths	None reported	Qualitative design, with semi-structured group interviews, qualitative content analysis.
32	Rosenbloom and Fick	Patients, caregivers, staff nurses	Nurse/Family Caregiver Partnership for Delirium Prevention program	Significant improvements in Knowledge of Delirium Questionnaire score and Attitudes towards aging	None reported	Quasi-experimental, pre-post

(Continued)

**Table 2** (Continued).

<b>P-I-C-O-S</b>						
<b>No.</b>	<b>Authors</b>	<b>Participants</b>	<b>Intervention</b>	<b>Results (Compared to Control Group)</b>	<b>Medical Outcomes Reported</b>	<b>Study Design</b>
33	Binding et al	Nurses, family member, patients	Calgary Family Assessment Model and Calgary Family Intervention Model	Opinion based in research findings	None reported	Opinion
34	Lee et al	BSN level nursing students	Questionnaire and either Family in Health and Illness or Women's Health course	Higher interest in family assessment reported	None reported	Quasi-experimental, pre-post
35	Sveinbjarnardottir et al	Family members	New Iceland-Family Percieved Support Questionnaire	Increased cognitive support and emotional support	None reported	Non-experimental
36	Silva et al	Registered nurses	15-Minute Family Interview	Benefits for the nurse-family relationship	None reported	Non-experimental, qualitative
37	de Jesus Silva Figueiredo et al	Family nurses	Calgary Family Assessment Model and Calgary Family Intervention Model	Family representations generated two perspectives in the nurses' thought system: sociological and psychological	None reported	Qualitative interviews, non-experimental

**Table 3** Summary of Strength and Quality of Evidence Identified with the JHNEBP

<b>Strength of Evidence</b>	<b>Frequency</b>	<b>Quality of Evidence</b>	<b>Frequency</b>
I	0	A	0
II	5	B	21
III	18	C	3
IV	0		
V	1		
<b>A</b>		<b>B</b>	

Reviewers conducted a thematic or narrative analysis. Part of the analysis is making sense of the data. When an observation reoccurs, it becomes a theme. Observations without reoccurrence are just observations.

## Discussion

Study results were broken into two thematic categories—facilitators and barriers—for the ease of discussion. There were nine facilitator themes encompassing 113 individual observations in the literature. The affinity matrix for facilitator themes is shown in [Table 5](#).

Improved patient/family outcomes was recognized in 21/113 (18.58%) of facilitators. Patient outcomes were improved with support during critical illness phases of patient care.<sup>15–17</sup> Support interventions which were provided by nurses were found to be helpful and useful by family members. This included support during end of life, emotional

**Table 4** Summary of Analysis, in Order of Use in Paper

No.	Authors	Facilitators	Themes	Barriers	Themes
9	Misto	Nurses evaluated their family nursing practice at high levels indicating their confidence working with families in areas of knowledge, skill, and comfort	Education increasing awareness of nurses	Nurses found notice of illness to family members negatively impacted family functioning	Patients with preexisting health concerns lack motivation to take part
		Frequent interaction and reciprocity were common in the nurse–family relationship supporting that nurses positively perceive family presence and nurse–family interactions	Clear two-way communications necessary	Nurses are not communicating concrete aids effectively such as type of exercise and diet restrictions	Communications concerns
		Nurses found that patient care was enhanced and nurse–family relationships were improved as a result of involved families in patient care plans	Families as a unit of care or collaboration		
		Stronger nurse–family relationships and coordination of care plans benefits nurses as it increases their understanding of the patient	Families as a unit of care or collaboration		
		Patient outcomes were improved by incorporating family involvement and increasing their ability to care for the patient after discharge	Families as a unit of care or collaboration		
		Nurses promote the nurse–family relationship by encouraging the family to help them get to know the patient. This is done utilizing interviews and questioning techniques	Clear two-way communications necessary		
15	Eggenberger and Sanders	Patient outcomes improved with additional support from nurses during their critical illness	Improved patient/family outcomes	Nurses report lack of confidence in communicating	Inadequate education
		Patient outcomes improved significantly when nurses managed their shared critical illness experiences and related it to the patient.	Improved patient/family outcomes	Nurses have trouble working with families which report troubling relationships with nurses that magnify their suffering and uncertainties.	Unrealistic expectations from family
		In comparison to the pre and post Family Nurse Practice scale, nurses felt after the program their skills in family systems increased tremendously	Education increasing awareness of nurses		
		Educational intervention has potential to increase nurses understandings of family illness experiences	Education for nurses/families		

(Continued)



Table 4 (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
16	Sveinbjarnardottir et al	Family reported high levels of cognitive and emotional support after short therapeutic conversation with nurses	Therapeutic conversations with families	Difficult for nurses to incorporate therapeutic conversations in routine nursing practice given time constraints and traditional practices	Nursing staff burden increased/stress concerns
		Collaborative relationship between nurses and families was improved by short education and training on family therapeutic conversations	Therapeutic conversations with families	Lack of inclusion of family members in patient care	Lack of nursing or family commitment
		Family's perceived support is influenced by the success of a clinicians engagement with the family and can lead to therapeutic change	Improved patient/family outcomes	Psychological and emotional demand of families experiencing a psychiatric event	Unrealistic expectations from family
		The quality of nursing care is improved by the involvement of families in nursing practice	Improved patient/family outcomes		
		Emotional support provided by nurses helps families and patients with the emotional difficulties associated with caring for a psychiatric patient	Improved patient/family outcomes		
17	Misto	Nurses focused on FSN model which helped relationship building, communication, and improved patient outcomes	Use of reflection and other tools	Time constraints, interruption of nurse routines, and poor nurse perception of family nursing care negatively impact and interfere with family nursing care	Nursing staff burden increased/stress concerns
		CFIM gave tools necessary for nurses to generate the change for the family managing exacerbations that can occur during the course of a chronic illness such as diabetes	Education increasing awareness of nurses	Nurses reported that diminished functioning within the family created a disadvantage in the nurse-family relationship	Family dynamics concerns
		Family members reported high levels of social support from nurses	Improved patient/family outcomes	Family members may be passive and fail to initiate engaging with nursing staff	Family dynamics concerns
		Nurses noticed positive outcomes when they included of family members in decision making	Improved patient/family outcomes	Lack of knowledge, unrealistic expectations, and cultural/language barriers made it more difficult for families to understand the plan of care as explained by nurses	Unrealistic expectations from family
		Nurses greatly improve the care and support families receive by sharing information regarding the patients illness and lifestyle adjustments they need to make	Resources to families		

(Continued)

**Table 4** (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
18	Gisladottir and Svavarsdottir	Nurses communicated information clearly and concisely for patients to understand intervention	Clear two-way communications necessary	Patients had a hard time understanding how to deal with a family member with a eating disorder	Family dynamics concerns
		Patients found the support intervention by nurses useful and helpful.	Improved patient/family outcomes		
		Nurses conducting intervention found great success in allowing the patient to write about the experience being a relative of an individual with an eating disorder	Therapeutic conversations with families		
19	Menard and Saucier	Families benefit from professional support of nurses in coping with the death of a relative.	Improved patient/family outcomes		
		Nurses found support from patient participation when the family is in tune	Improved patient/family outcomes		
		Redefined and enhanced family–nurse relationships	Clear two-way communications necessary		
		Nurses had high encouragement to interact with families due to administrative support	Education changing perceptions of nurses towards CFIM		
20	Arief and Rachmawati	Parent empowerment can be utilized by nurses to improve the family's ability to care for their child's condition	Improved patient/family outcomes		
		Helping families through the empowerment process improves the relationship between family and health professionals through an increase in trust and decision-making	Improved patient/family outcomes		
		Increasing knowledge of the patient's condition enables families and patients to manage the condition and symptoms	Improved patient/family outcomes		
		A positive attitude regarding treatment and patient condition is impacted positively by the sharing of experiences and an increase in knowledge	Improved patient/family outcomes		

(Continued)

Table 4 (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
21	Rempel	Promotion of parent resilience is supported by nurses modeling care and empowering them to care for their child	Families as a unit of care or collaboration	A cost-focused healthcare culture may result in disempowering attitudes and behaviors of health professionals	Increased time required to develop nursing skills
		A family's perception of treatment and intervention is influenced by their relationship with nurses	Clear two-way communications necessary	High pressure, clinical environments impact healthcare professionals' perception of available time and ability to interact with families beyond the traditional care model	Nursing staff burden increased/stress concerns
		Trusting relationships are built through genuine and positive interactions between nurses and families	Clear two-way communications necessary	Lack of collaboration and failure to share information between health professionals and families	Problems surrounding family sharing of patient information
		Empowerment-based approaches can be utilized by nurses to aid in parental decision-making	Improved patient/family outcomes	Difficulty for parents of overcoming the loss of a healthy child, complex choices and decisions, and emotional strain of illness and uncertainty	Family dynamics concerns
		Circular questioning by nurses allows parents to reflect on their beliefs and their family relationship. Circular questions also enable nurses to determine areas where parents lack understanding and address them accordingly	Resources to families	Parents differed in perception of greatest stressors and demands in caring for their child	Family dynamics concerns
		Nurses are influential in offering pertinent information and recommendations/opinions for parents to base their decisions	Improved patient/family outcomes	Healthcare professionals may doubt whether a family can make appropriate decisions for their child	Family dynamics concerns
		Nurses can help a family by validating their emotions and concerns regarding their child's condition and/or treatment	Therapeutic conversations with families	Families must learn complex, medical information that can be perceived as overwhelming in an effort to care for their child	Communications concerns
		A collaborative approach to care increases trust, facilitates joint decision-making, and aids parents in making decisions	Therapeutic conversations with families		
		Commendation of family strengths helps to empower families and provide a context for change in problem-solving	Resources to families		
22	Clausson and Berg	Nurses felt the tools were time saving and easy to use	Use of reflection and other tools	School nurses lacked experience and knowledge with including families in intervention	Inadequate education

(Continued)

**Table 4** (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
		Families reported relief and described positive affective, behavioral, and cognitive changes as a consequence of the interventions	Improved patient/family outcomes	Parents differed in perception of greatest stressors and demands in caring for their child	Family dynamics concerns
		Nurses reported that the family was the most important factor for schoolchildren's mental health	Therapeutic conversations with families		
		Nurses encouraged the Illness Beliefs Model to uncover constraining illness experience beliefs which improved relationships which ultimately brought a feeling of support and collaboration between family members when illness arises	Families as a unit of care or collaboration		
23	Brumfield	Patients expected to benefit from the CMP program are those who underuse health care resources	Improved patient/family outcomes	Patients experience financial disparities	Family dynamics concerns
		Nurses effectively communicate with "noncompliant" family members to influence adherence to treatment plans	Therapeutic conversations with families	Patients lack of health conditions provokes lack of motivation to follow treatment plans and denial of care assistance	Patients with preexisting health concerns lack motivation to take part
		Patients positive comments after nurse sessions were found innovative compared to other actions offered	Clear two-way communications necessary		
24	Holtlander et al	15-minute family interviews allowed students to increase their perspective regarding their patient and patient's family, identify their needs, and improved their ability to work in a therapeutic relationship	Use of reflection and other tools	Nurses may not know how to cope with the suffering of family members	Inadequate education
		Conversations between nursing students and families increase capacity for healing by improving education and skill development	Improved patient/family outcomes	The nursing profession, along with other fields, is experiencing a decline in the prevalence of appropriate manners and civility	Nursing staff burden increased/stress concerns
		Personal growth was seen in student nurses as they practiced skills, abilities, and improved their attitudes towards working with families and reflecting on their experiences	Education changing perceptions of nurses towards CFIM	Lack of time in the clinical setting to talk with families	Nursing staff burden increased/stress concerns

(Continued)

Table 4 (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
		Understanding the theory behind therapeutic conversations increases the willingness to listen to families and affirm their thoughts and perspectives	Therapeutic conversations with families	Families afraid to accurately fill out the genogram for fear of being judged for their differences	Problems surrounding family sharing of patient information
		Appropriate manners can prevent nurses from interrupting families, enable them to properly introduce themselves, and increase the trust in the family–nurse relationship by using the family names	Education for nurses/families	Family frustration with the lack of communication about patient condition and treatment plan	Lack of nursing or family commitment
		The genogram and ecomaps served as a framework for collecting information and helped facilitate the family interview	Use of reflection and other tools	Lack of inclusion of the family as partners in the patient's care	Lack of nursing or family commitment
		Utilization of circular questions and therapeutic questions increase interaction between family members and increased nurse understanding of relationships, intercommunication, and personality	Use of reflection and other tools		
		Commending families allows nurses to identify specific strengths within a family and help to create a context for change in future challenges	Resources to families		
		Completing the interview earlier on in a nursing shift would deepen the therapeutic relationship in increasing nurse understanding of the family needs and priorities	Education for nurses/families		
25	Sigurdardottir et al	Mothers reported increased emotional and cognitive family support after the conversation intervention	Improved patient/family outcomes	Limited time of providers	Nursing staff burden increased/stress concerns
		Mothers found the professional opinions, caregiver support, and additional information on the child's condition to be beneficial	Therapeutic conversations with families	Gender and familial roles may influence relative satisfaction with parental knowledge of the child's condition	Problems surrounding family sharing of patient information
		Parents who participated in the therapeutic conversation group experienced fewer difficulties with treatment of their child's condition	Therapeutic conversations with families	Nurses and midwives felt their job was high strain	Nursing staff burden increased/stress concerns

(Continued)

**Table 4** (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
		Nurses and midwives who took the family nursing training program felt as if they received more support from administrators and coworkers	Education changing perceptions of nurses towards CFIM	Nurses expressed doubts regarding the effectiveness and utility of the family interview	Nursing staff burden increased/stress concerns
		Increased autonomy for nurses and midwives to control their own work	Education increasing awareness of nurses		
		Family's perceived support is influenced by the success of a clinician's engagement with the family and can lead to therapeutic change	Education changing perceptions of nurses towards CFIM		
26	Broekema et al	Nurses received a 6-day education on family nursing	Education for nurses/families	Some nurses experienced difficulties in utilizing the genogram and ecomaps and did not feel adequately capable of using these tools	Inadequate education
		Nurses taught to conduct a family nursing conversation	Education for nurses/families	Nurses felt that the education provided them with knowledge, but they needed time to actual develop the skills associated with family nursing conversations	Increased time required to develop nursing skills
		Nurses taught to utilize reflection as a technique for connecting with families	Use of reflection and other tools	Six days of education on family nursing increases pressure on nurses and organizational budgets	Nursing staff burden increased/stress concerns
		Nurses instructed on genograms and ecomaps and assessed on their utilization of these tools	Use of reflection and other tools	Nurses family nursing competency was self-assessed by the nurses and could be inaccurately reported	Self-assessment of nursing skills can be inadequately reported
		Educational intervention increased awareness among nurses of the importance of families and their contributions	Education increasing awareness of nurses		
		Nurses gained a more positive perception of the importance of family nursing conversations	Education changing perceptions of nurses towards CFIM		
		The educational intervention incorporated a systemic view leading nurses to view the family as a unit of care for their patients	Families as a unit of care or collaboration		

(Continued)

Table 4 (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
		A collaborative focus in nursing education on family nursing created the perception among nurses that caring for the patient is a collaborative effort between the nurse and the patients' family	Families as a unit of care or collaboration		
		The educational intervention included practical and theoretical knowledge in addition to knowledge on nursing roles and boundaries	Education for nurses/families		
		Nurses who received instruction on the development on family nursing skills found they became more aware of their communication and more cognizant in their interactions with families	Education increasing awareness of nurses		
27	Martinez et al	Nurses believed that they had developed their ability to intervene and effectively resolve problems	Education increasing awareness of nurses	The 15 minute family interview is virtually unknown by staff nurses who work directly with patients	Inadequate education
		Nurses reported use of circular questions helped clarify expectations in relationship between themselves and patients and their families	Education increasing awareness of nurses	Nurses found difficulty in pre-intervention based on different beliefs within family members	Problems surrounding family sharing of patient information
		Increased nurse confidence and competence after learning the proper steps to conduct the assessment	Education for nurses/families	Few nurses perceived the family as a unit of intervention	Family dynamics concerns
		High percentage of nurse participants expressed an interest in including more family interventions into their practice	Education increasing awareness of nurses	Some families had lack of cooperation	Family dynamics concerns
		Nurses found using the 15-minute family interview model is beneficial to conduct family assessments	Education changing perceptions of nurses towards CFIM		
28	Simpson et al	Nurses reported that by involving families they were able to obtain a more complete picture of the situation with more comprehensive assessment and treatment planning	Families as a unit of care or collaboration	Lack of systematic training to for nurses to involve families in care planning	Inadequate education

(Continued)

**Table 4** (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
		Nurses found it helpful to explore beliefs and family strengths	Families as a unit of care or collaboration	Nurses do not want to trouble family members on top of their existing workload	Nursing staff burden increased/stress concerns
		Nurses found that they were thinking about their practice in a different way after assessment	Education increasing awareness of nurses	Nurses and family members were subject to time constraints	Nursing staff burden increased/stress concerns
		Majority of nurses stated they were more confident in their knowledge and some reported a new pride in their profession	Education increasing awareness of nurses	Nurses explained family members are sometimes reluctant to disclose their problems	Problems surrounding family sharing of patient information
				In Hong Kong it is very unusual to involve the family in the assessment of family nursing	Family dynamics concerns
				Some nurses were afraid of the negative responses or of making the patient angry	Communications concerns
29	John and Flowers	Educational preparation in family nursing resulted in a willingness to step into leadership positions for staff practice and development	Education for nurses/families	Nurse perception that ecomaps do not add useful information in a family assessment	Increased time required to develop nursing skills
		The recognition of the importance of family nursing practice resulted in agencies allocating time for family meetings and discussions	Education increasing awareness of nurses	General patient wards may be less supportive of family nursing given high turnover rates and acute conditions	Nursing staff burden increased/stress concerns
		Family nursing practice is particularly encouraged in areas where the patient is experiencing a chronic or terminal illness	Education for nurses/families	Nurses did not utilize the formal assessment tools due to the intuitive and need-focused structure of the assessment	Nursing staff burden increased/stress concerns
		Nurses identified the processes and strategies for interaction facilitation as being the most useful	Education increasing awareness of nurses	Additional documentation limited by the amount of time allocated for documentation in the traditional clinical setting	Nursing staff burden increased/stress concerns
		Family nursing skills and interaction processes aided nurses in exploring the family's perspective on their priorities	Families as a unit of care or collaboration	The development of family-centered nursing models is hindered by a lack of time, a lack of family nursing being perceived as beneficial, and a lack of knowledge and skills throughout healthcare organizations on family nursing	Nursing staff burden increased/stress concerns
		Staff development may benefit organizations in changing and implementing family-centered care	Education for nurses/families		

(Continued)



Table 4 (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
		Administrative support of family nursing and emphasizing the importance of working with families is integral to the success of family centered care implementation	Education changing perceptions of nurses towards CFIM		
		Nurses reported that family nursing improved their job satisfaction and improved nursing unit morale	Education increasing awareness of nurses		
30	Choi et al	No drop-out rate for the intervention given an effort by the researchers to ensure the family therapeutic conversations were held when both parents were available	Families as a unit of care or collaboration	Difficult for parents to share their experiences regarding their child's condition due to traditional familial roles	Problems surrounding family sharing of patient information
		Families were able to access the website contents (educational website designed for the intervention) using multiple devices at their convenience	Resources to families	Study was performed in Korea where Confucian values impact the family culture	Problems surrounding family sharing of patient information
		Family therapeutic conversations were found to be helpful in allowing parents to discuss their partner's experience, learn problem-solving communication, and manage their child's condition	Therapeutic conversations with families		
		Family support conversations created opportunities for families to recognize their strengths	Therapeutic conversations with families		
31	Dorell and Sundin	Nurses communication with family members turned into a trusting relationship	Clear two-way communications necessary	Family members did not want to interfere with nurses activities because they did not want to be perceived as demanding which could have a negative effect on family members care	Family dynamics concerns
		Nurses understood families members concerns and added structure to the conversations which ended in collaboration	Families as a unit of care or collaboration	Family members persisted in biases until nurses showed sufficient care	Family dynamics concerns
		Emotional support, listening to the patient and family, and engaging with the family to form a sense of trust are found to be the predominant effective intervention	Clear two-way communications necessary		

(Continued)

**Table 4** (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
32	Rosenbloom and Fick	Participation positively impacted by an increased knowledge of delirium and attitudes toward collaboration with families	Families as a unit of care or collaboration	Staff burden inhibits successful implementation	Nursing staff burden increased/stress concerns
		Reciprocal, clear, and honest communication between staff and family caregivers is vital for effective caregiving and prevention	Clear two-way communications necessary	An inability to commit to daily visits was cited as the reason for lack of participation	Lack of nursing or family commitment
		Simultaneous education of nurses and families on the patient's condition, prevention of symptoms, and partnerships is both achievable and desired	Education for nurses/families	Prior nursing experience dealing with challenging family dynamics impacted their level of stress during conflict with family	Family dynamics concerns
33	Binding et al	Nurses found increased opportunity to make a positive difference in the illness and health experiences of families	Improved patient/family outcomes	Nurse educators found difficulty in assisting students to see diversity and differences	Inadequate education
		Stronger nurse–family relationships and coordination of care plans benefits nurses as it increases their understanding of the patient	Families as a unit of care or collaboration	Students had little to no experience in family nursing	Increased time required to develop nursing skills
		Reflective writing practices of nurses increased educational understanding	Use of reflection and other tools		
34	Lee et al	Confidence in practicing family nursing was positively impacted by increased education in a family nursing course	Education for nurses/families	Lack of skill among nursing students to utilize family assessments in clinical practice	Inadequate education
		Nursing student interest in a family nursing course positively impacted the nurse–family relationship	Education for nurses/families	No formal education or standardized framework for family nursing to improve skills, knowledge, and attitudes regarding working with families	Inadequate education
				Perception of family nursing may be impacted by prior painful experiences with their own families and an unwillingness to confront their own family issues	Increased time required to develop nursing skills
				Lack of recognition/support for family nursing in healthcare	Lack of administrative support

(Continued)

Table 4 (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
35	Sveinbjarnardottir et al	Emotional support, listening to the patient and family, and engaging with the family to form a sense of trust are found to be the predominant effective intervention	Clear two-way communications necessary		
		The proposed measurement tool includes consideration of family perception of family nursing interventions regarding cognitive and emotional functioning	Use of reflection and other tools		
36	Silva et al	Therapeutic conversations allowed the opportunity for families to share their needs and experiences with the patients health and illness	Therapeutic conversations with families	A lack of theoretical references and tools hinders the incorporation of family in patient care	Inadequate education
		Nurses experienced positive emotions when offering commendations to families	Resources to families	Nurses lacked confidence in introducing a new procedure into their traditional routine of care	Increased time required to develop nursing skills
		Perception among nurses that the time utilized for the 15 minute family interview is beneficial	Education changing perceptions of nurses towards CFIM	Fear among healthcare professionals that the introduction of the 15-minute family interview will overwhelm them with responsibilities	Nursing staff burden increased/stress concerns
		Family appreciation for the interview and time spent, compassion, and recognition made the experience rewarding for nurses	Resources to families	Perception of the interview as a burden or obligation made the nurses uncomfortable	Nursing staff burden increased/stress concerns
		Providing a space for families to discuss their experiences and acknowledgements increased the amount of information for the family assessment	Resources to families	Nurses expressed doubts regarding the effectiveness and utility of the family interview	Communications concerns
		Trust and support are important factors for nurses and families during home visits	Clear two-way communications necessary		
37	de Jesus Silva Figueiredo et al	Nurses gained a more positive perception of the importance of family nursing conversations	Education changing perceptions of nurses towards CFIM	Nurses were not prepared for a differentiated intervention	Inadequate education
				Nurses lacked education in the family nursing area	Inadequate education
				Nurses and administration lack of guiding models	Inadequate education

(Continued)

**Table 4** (Continued).

No.	Authors	Facilitators	Themes	Barriers	Themes
				Fragmentation by the institution was considered as a problematic element for full understanding	Lack of administrative support

**Table 5** Study Results Affinity Matrix for Facilitators

Themes/Observations	References	n	%
Improved patient/family outcomes	[15–25]	21	18.58
Education increasing awareness of nurses	[9,15,17,23,26–29]	14	12.39
Families as a unit of care or collaboration	[9,21,28–33]	14	12.39
Education for nurses/families	[15,24,26,27,29,32,34]	13	11.50
Therapeutic conversations with families	[16,18,21–25,30,36]	13	11.50
Clear two-way communications necessary	[9,16,18,19,21,23,31,32,36]	12	10.62
Use of reflection and other tools	[16,17,22,24,26,33]	9	7.96
Education changing perceptions of nurses towards CFIM	[19,24–27,29,36,37]	9	7.96
Resources to families	[17,21,24,30,36]	8	7.08

concerns, and psychiatric concerns of the patient.<sup>16,18,19</sup> Improved patient outcomes were shown when nurses shared their collective experiences with patients and families. Nurses were able to offer pertinent information, thoughts, and opinions, which assisted with outcomes.<sup>15,20,21</sup> Nursing interventions were found to be empowering to families to provide care for the patient.<sup>20,21</sup> Positive outcomes were noted by nurses when the family was involved with decision-making. This allowed for a marked increase in the ability to make decisions for the family and in more positive experiences surrounding the provision of care for families.<sup>17,22</sup> Improved outcomes were seen in patients who normally underutilize healthcare resources.<sup>23</sup> When families were empowered, improved relationships were seen between them and their healthcare providers, along with increased levels of trust and ability to make decisions.<sup>20</sup> With the increased knowledge regarding patient conditions came an increased ability of both family and patient to better manage symptoms.<sup>20</sup> When families had conversations with nursing staff, this resulted in an increased capacity for healing of the patient and of family concerns.<sup>24,25</sup> Families were able to find relief and were enabled to have positive affective, behavioral, and cognitive changes as a result of nursing interventions.<sup>22</sup>

Education increasing awareness of nurses was recognized in 14/113 (12.39%) of facilitators. Education was seen as an effective tool in increasing the confidence of nursing in working with families and patients in the areas of knowledge, skill, comfort, family systems, assessment, and interactions.<sup>9,15,26–28</sup> Education was also found to be a tool to utilize to assist to clarify expectations in relationships between nurses and patients/families. Circular questioning was identified as an effective tool in this area. Nurses were also better enabled in assisting or managing a chronic exacerbation in patients if they were adequately educated on the concern and the techniques.<sup>17,26</sup> Education of nurses was seen as a measure to increase awareness of the importance of families and their contributions. It also increased awareness of the benefits of collaborative efforts between nurses and families.<sup>29</sup> Nurses who received instruction on the development of family nursing skills became more aware of their own communications and thus more aware of their interactions with families.<sup>29</sup> Education of the value of CFIM increased awareness of agency nurses and encouraged them to work with their agencies to allocate time for family meetings and discussions as part of their daily work.<sup>28</sup> Education caused improvements to be seen in job satisfaction and improved morale of nurses.<sup>28</sup> Increase autonomy was also exhibited with more education for nurses in controlling their work assignments.<sup>23</sup>

Families as a unit of care or collaboration was recognized in 14/113 (12.39%) of facilitators. Education assisted nurses in understanding that caring for patients is a collaborative effort.<sup>29–31</sup> Increased knowledge of disease process for

nurses helped to improve attitudes of collaboration with families and provided improved perspective of the patient/family situation.<sup>21,29,32</sup> Stronger nurse–family relationships afforded better coordination of care plans and increased understanding of the patient.<sup>9,33</sup> Education led to furthered viewpoint of nurses regarding the family as a unit of care.<sup>29</sup> Patient care can be enhanced by nurse–family relationships, especially with families who are involved. This led to improved outcomes and improved patient care plans.<sup>9</sup> Outcomes after discharge were improved by nurse–family relationships in the hospital, which led to an increase in understanding for the families to assist in care post discharge.<sup>9</sup> The use of different models (such as the Illness Beliefs Model) helped to improve relationships and increase the feelings of support and collaboration between nurses and families.<sup>32</sup> Nurses found that the more families were involved in care, the better the understanding of the patient situation they had, which allowed for more comprehensive assessments and treatment plans.<sup>28</sup> Nurses who explored beliefs and family strengths had better overall patient outcomes.<sup>28</sup>

Education for nurses/families was recognized in 13/113 (11.5%) of facilitators. When provided specific education, it was shown to lead to improved overall outcomes for nurses, families, and patients.<sup>26,29,34</sup> Increased levels of education adds important practical knowledge to the understanding of nursing roles and boundaries.<sup>26,29</sup> Education leads to increased nursing confidence and competence in assessment skills and increased understanding of family needs and priorities.<sup>24,27</sup> Increased education can lead to increased understanding of nurses regarding family illness experiences.<sup>15</sup> When simultaneously educating nurses and families on patient condition and prevention of symptoms, an increased partnership can be built to provide the patient care.<sup>32</sup> Education to nurses surrounding bedside manner allowed for an increase in family trust of the care being provided.<sup>24</sup> Education overall led nurses to feel more comfortable in taking leadership positions to help promulgate information to other nurses on how to improve care.<sup>29</sup>

Therapeutic conversations with families was recognized in 13/113 (11.5%) of facilitators. Therapeutic conversations were found to be assistive in furthering discussions in learning problem solving communication, managing patient conditions, increased trust of providers with families, and in facilitating decision-making for families.<sup>16,21,25,30</sup> Supportive conversations created opportunities for families to recognize their own strengths, needs, and experiences.<sup>25,30,35</sup> Therapeutic conversations were quite effective in allowing nurses to help families in validating their own emotions and concerns regarding the patient and their condition.<sup>21,24</sup> The use of writing communications allowing patients to journal their experiences allowed for increased understanding of conditions and compliance with care.<sup>18</sup> Appropriate conversations between nurses and families allowed for greater compliance with treatment plans and greater compliance overall with “non-compliant” patients.<sup>23</sup> Quality family communications were important factors in ongoing family mental health.<sup>22</sup>

Clear two-way communications necessary was recognized in 12/113 (10.62%) of facilitators. Reciprocal, clear, and honest communication between nurses and family is vital for caregiving and prevention. This is also noted to increase trust of nursing providers.<sup>16,21,31,32,35</sup> Clearer nursing communications led to easier understanding by patient and family regarding interventions being performed.<sup>18,19</sup> Nursing interventions are shown to further provide family and patient with emotional support and engagement.<sup>21,31</sup> Frequent interaction and reciprocity were noted in nurse/family relationships. This had positive connotations for nurses in perceptions towards families.<sup>9</sup> Nurses are enabled to promote family/patient relationships by assisting family to get to know patients and conditions better.<sup>9</sup> Patients expressed positive perceptions of nurses after more appropriate interactions were experienced between them.<sup>23</sup>

Use of reflection and other tools was recognized in 9/113 (7.96%) of facilitators. Reflection tools are easy to use, time saving, and are beneficial in the nurse/patient relationship. They also can be used to build relationships, increase communications, and improve patient outcomes.<sup>17,22,24</sup> Nurses can use reflection and therapeutic questioning as a technique to better connect with families. This can increase nurse understanding of relationships, intercommunications, and personality.<sup>24,26,33</sup> The use of specific tools such as genograms and ecomaps can assist nurses with interactions around patient care.<sup>24,26</sup> Measurement tools can provide insights to family perceptions surrounding nursing interactions to include cognitive and emotional functions.<sup>16</sup>

Education changing perceptions of nurses towards CFIM was recognized in 9/113 (7.96%) of facilitators. Education regarding CFIM allowed nurses to have positive perceptions on importance of nursing/family interactions.<sup>26,36,37</sup> Increased education and training increased positive perceptions of support by nurses from administration and

coworkers.<sup>19,25</sup> Better understanding of why to use tools allowed for discovery by nurses to the beneficial nature of their usage.<sup>27,29</sup> Use of tools and education surrounding them allowed for personal growth of nurses as this increased skills, abilities, and attitudes towards working with families and reflecting upon experiences.<sup>24</sup> Education led to increased support from families and can lead to treatment changes.<sup>25</sup>

Resources to families was recognized in 8/113 (7.08%) of facilitators. Commendation of family strengths is a powerful tool and resource to provide for change in context for problem solving to allow family to take an active part in care.<sup>21,24</sup> Resources such as websites provide to families allowed for more positive interactions and increased understanding of nursing interventions.<sup>30,36</sup> Providing positive commendation to families allowed for positive emotions in nurses, which allowed for more rewarding experiences for nurses.<sup>30</sup> The sharing of information by nurses to family and patient led to increased perceptions of nurses regarding improving care and support of patients. An effective method for this was performed at discharge by sharing information on illness and lifestyle adjustments, which need to be implemented.<sup>17</sup> Circular questioning as a tool allowed for increased family understanding of beliefs, relationships, and interventions.<sup>21</sup>

## Barriers

The remainder of study results were barriers. There were eleven barrier themes encompassing 74 individual observations in the literature. The affinity matrix for barrier themes is shown in Table 6

Nursing staff burden increased/stress concerns was recognized in 18/74 (24.32%) of barriers. Persistent perceptions exist that adding further work to the nursing staff is untenable and creates further issues with time constraint. Concerns were noted in time constraints regarding ability to perform the job, lack of ability to speak with families/patients, and nurses already having too much documentation to complete already.<sup>21,24,25,28,29</sup> Perceptions regarding a severely increased staff burden of already overburdened workers exist. More documentation can be overwhelming to the staff that already perceives that they have too much documentation to complete and provide adequate care.<sup>25,29,32,36</sup> Poor perceptions surrounding the intervention by nursing as it will increase the workload. Nursing staff have doubts on the effectiveness and utility of the model and that implementing it could be intrusive to care provision.<sup>9,21,25,29</sup> Organizational barriers exist such as increased pressure on nursing staff to perform, as well as budgetary constraints.<sup>9,26</sup> Nursing views the model to be troubling and intrusive to family members.<sup>28</sup> The ability of use for the model could be dependent upon the type of environment, such as general patient wards, where they are already less supportive of family nursing due to high turnover and acuity levels.<sup>29</sup>

Family dynamics concerns was recognized in 14/74 (18.92%) of barriers. Lack of family cooperation and lack of ability to make patient care decisions by the family are concerning.<sup>21,27</sup> Among groups of family members, the dynamics and perceptions of what the patient required for adequate care were differing, causing confusion and delay in the process of providing care.<sup>21,22</sup> Family members often were biased against nurses until they perceived sufficient levels of care coming from the individual nursing staff.<sup>28,31</sup> Many nurses had a lack of experience or training in dealing with

**Table 6** Study Results Affinity Matrix for Barriers

Themes/Observations	References	n	%
Nursing staff burden increased/stress concerns	[9,21,24–26,28,29,32,36]	18	24.32
Family dynamics concerns	[9,18,21–23,27,28,31,32]	14	18.92
Inadequate education	[15,22,24,26–28,33,34,36,37]	13	17.57
Problems surrounding family sharing of patient information	[21,24,25,27,28,30]	7	9.46
Increased time required to develop nursing skills	[21,26,29,33,34,36]	6	8.11
Lack of nursing or family commitment	[16,24,32]	4	5.41
Communications concerns	[17,21,28,37]	4	5.41
Unrealistic expectations from family	[9,15,16]	3	4.05
Patients with preexisting health concerns lack motivation to take part	[17,23]	2	2.70
Lack of administrative support	[34,37]	2	2.70
Self-assessment of nursing skills can be inadequately reported	[26]	1	1.35

challenging family dynamics.<sup>18,32</sup> Certain groups exhibited diminished functioning within their family units, which created significant issues with the nurse–family relationship.<sup>9,27</sup> Families often exhibited passive natures towards care or nurses, which created issues with the provision of care.<sup>9</sup> Financial disparities of families often led to issues surrounding the provision of care.<sup>23</sup> Many families did not want to engage nurses as they believed that they would be seen as demanding or that their actions would have negative effects on the care being given.<sup>31</sup>

Inadequate education was recognized in 13/74 (17.57%) of barriers. Nurses often lacked in the areas of education, skills, or abilities in the ability to adequately utilize tools provided to them to provide care.<sup>26,33,34,36,37</sup> Nurses also report a lack of confidence in communications, skills, knowledge, or attitudes in their interactions with families.<sup>15,34,37</sup> Many nurses reported not being confident in how to involve families in care planning or chosen interventions for care provision.<sup>22,28</sup> Reports from nurses (after they have been provided education) that tools or processes are still unknown to them, leading to the conclusion that more education overall is necessary for successful implementation of CFIM.<sup>27,37</sup> Nurses report that they do not understand how to cope with family suffering or other concerns.<sup>24</sup>

Problems surrounding family sharing of patient information was recognized in 7/74 (9.46%) of barriers. It was problematic for family to share information about the patient due to traditional familial or gender roles, religious beliefs, or fear of judgement from others.<sup>24,25,30</sup> A perceived lack of collaboration and failure to share information caused issues between the nurse and family members.<sup>21</sup> Differing beliefs between family members caused difficulty in application of CFIM interventions.<sup>27</sup> Family members were often reluctant to disclose problems regarding the patient or themselves.<sup>28</sup>

Increased time required to develop nursing skills was recognized in 6/74 (8.11%) of barriers. Nurses believe the knowledge of these interventions is important but thought that more time was necessary to develop the required skills to adequately work with the tools. The lack of experience in this area is concerning.<sup>26,29,33,36</sup> The culture of the organization became disempowering towards attitudes and beliefs requiring time to resolve.<sup>21</sup> Nurses have personal perceptions to overcome over time due to their own family experiences or unwillingness to confront their own family concerns.<sup>34</sup>

Lack of nursing or family commitment was recognized in 4/74 (5.41%) of barriers. Family felt not included as partners in patient care.<sup>16,24</sup> Family also became frustrated with the perceived lack of communication about patient condition and treatment plans.<sup>24</sup> Families were often unable to commit to daily visits to patient causing a lack of family participation with the CFIM.<sup>32</sup>

Communications concerns were recognized in 4/74 (5.41%) of barriers. Nurses were noted to not be communicating tools effectively to patients and families.<sup>17</sup> Families became overwhelmed at the amount of information they had to learn and comprehend.<sup>21</sup> Nurses became afraid of negative responses from family or making the patient angry.<sup>28</sup> Nurses expressed doubts regarding the effectiveness and utility of family intervention tool.<sup>37</sup>

Unrealistic expectations from family was recognized in 3/74 (4.05%) of barriers. Nurses were noted to have trouble working with families who reported their relationships as troubling, thus leading to magnified perceptions by nurses regarding their own suffering or concerns.<sup>15</sup> Lack of knowledge, unrealistic expectations, and cultural/language barriers made it more difficult for families to understand the plan of care as explained by nurses.<sup>9</sup> High psychological and emotional demand of many families caused concerns for many nurses in meeting expectations of families.<sup>16</sup>

Patients with preexisting health concerns lack motivation was recognized in 2/74 (2.70%) of barriers. When families were re-notified of patient conditions, it affected family functioning and created barriers to care.<sup>17</sup> Patients with existing health concerns lack motivation to follow treatment plans set forth in many cases, as well as they have a denial of care and assistance attitude.<sup>23</sup> Lack of administrative support was recognized in 2/74 (2.70%) of barriers. Nurses noted a lack of recognition and support for family nursing in healthcare by administration.<sup>34</sup> Certain programs became fragmented by the institution and the understanding of the programs became uncertain.<sup>37</sup> Self-assessment of nursing skills can be inadequately reported was recognized in 1/74 (1.35%) of barriers. Nurses who self-assessed their skills and competency using CFIM tools were noted to potentially have inaccurate self-reporting.<sup>26</sup>

## Further Considerations

The use of CFIM and nursing led educational interventions with the family can provide for excellent benefits to both the patient and the family. There were specific benefits regarding outcomes for the patient and family that might not have been realized without the use of these methods. This was particularly important during critical phases of the patients'



hospitalization. Overall, benefits were seen at end of life, during emotional times for patient or family, and during psychiatric interventions. Noted in the research was the benefits that the nurses interventions had in the ability for decision-making for the patient and in the overall patient experience. Families were often found to be empowered further and a part of the care team when nurses provided these interventions during a hospital stay. In fact, clearly the use of CFIM enables not only a more positive stay for the patient but also a more positive experience for the family, despite the status of the patient at discharge. These methods were able to bring together the patient, the family, and the nursing staff to allow for a much more beneficial experience for all involved.

The use of CFIM and nursing led educational interventions does not come without its fair share of concerns. Nursing staff can feel overburdened by the use of these methods and this can be perceived as additional work for them. Thus, this intervention could lead to increased workplace stress. Certain things which nurses cannot plan for or control cause issues continually, such as problems with family dynamics, family sharing, and family involvement and commitment (or lack thereof). Unrealistic family expectations are always a concern and were still a concern in many cases, even with these improved methodologies to assist the patient and family. Some nurses also still felt unequipped to use these methods, even after significant education was provided to them. Lastly, the perception of a lack of administrative support is concerning.

## Limitations

Limitations to this manuscript stem from the small number of studies upon which to base conclusions. The CFIM and how it relates to patient and family compliance is not a well-studied area in the literature. The quality and strength of the articles may have had some implications in the quality of the findings of this article.

## Conclusion

From an overarching perspective, it seems that the use of CFIM and nursing led educational interventions is beneficial for the nurses involved and it provides for a much better ability to achieve a healthy work environment.

## Abbreviation

CFIM, Calgary Family Intervention Model.

## Ethics Disclosure

This work was exempted from normal IRB processes, as it is a systematic review. The research was conducted in accordance with the Declaration of Helsinki.

## Disclosure

The authors report no conflicts of interest in this work.

## References

1. Leahey M, Wright LM. Application of the Calgary family assessment and intervention models: reflections on the reciprocity between the personal and the professional. *J Fam Nurs*. 2016;22(4):450–459. doi:10.1177/1074840716667972
2. McClay R. Implementation of the family HELP protocol: a feasibility project for a West Texas ICU. *Health Care*. 2021;9(2):146. doi:10.3390/healthcare9020146
3. Wright LM, Leahey M. Calgary family intervention model: one way to think about change. *J Marital Fam Ther*. 1994;20(4):381–395. doi:10.1111/j.1752-0606.1994.tb00128.x
4. Lee HW, Park Y, Jang EJ, Lee YJ. Intensive care unit length of stay is reduced by protocolized family support intervention: a systematic review and meta-analysis. *Intensive Care Med*. 2019;45(8):1072–1081. doi:10.1007/s00134-019-05681-3
5. Hsieh TT, Yang T, Gartaganis SL, Yue J, Inouye SK. Hospital elder life program: systematic review and meta-analysis of effectiveness. *Am J Geriatric Psychiatry*. 2018;26(10):1015–1033. doi:10.1016/j.jagp.2018.06.007
6. Rosenbloom-Brunton DA, Henneman EA, Inouye SK. Feasibility of family participation in a delirium prevention program for hospitalized older adults. *J Gerontol Nurs*. 2010;36(9):22–33. doi:10.3928/00989134-20100330-02
7. Setliff EL, Schulman A. Innovative strategies for family engagement. *Crit Connect*. 2021;20(4):32–33.
8. Heim N, van Stel HF, Ettema RG, Schurmans M, van der Mast RC, Inouye SK. HELP! Problems in executing a pragmatic, randomized, stepped wedge trial on the hospital elder life program to prevent delirium in older patients. *Trials*. 2017;18(1):1–12. doi:10.1186/s13063-017-1933-4



9. Misto K. Family perceptions of family nursing in a magnet institution during acute hospitalizations of older adult patients. *Clin Nurs Res*. 2019;28(5):548–566. doi:10.1177/1054773817748400
10. Kruse CS. Writing a systematic review for publication in a health-related degree program. *JMIR Res Protoc*. 2019;8:e15490. doi:10.2196/15490
11. Newhouse R, Dearholt S, Poe S, Pugh L, White K. *The Johns Hopkins Nursing Evidence-Based Practice Rating Scale*. Baltimore, MD: The Johns Hopkins Hospital; 2005.
12. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3:77–101. doi:10.1191/1478088706qp063oa
13. Light RJ. Measures of response agreement for qualitative data: some generalizations and alternatives. *Psychol Bull*. 1971;76:365. doi:10.1037/h0031643
14. McHugh ML. Interrater reliability: the kappa statistic. *Biochemia Medica*. 2012;22:276–282. doi:10.11613/BM.2012.031
15. Eggenberger SK, Sanders M. A family nursing educational intervention supports nurses and families in an adult intensive care unit. *Australian Crit Care*. 2016;29(4):217–223. doi:10.1016/j.aucc.2016.09.002
16. Sveinbjarnardóttir EK, Svavarsdóttir EK, Wright LM. What are the benefits of a short therapeutic conversation intervention with acute psychiatric patients and their families? A controlled before and after study. *Int J Nurs Stud*. 2013;50(5):593–602. doi:10.1016/j.ijnurstu.2012.10.009
17. Misto K. Nurse perceptions of family nursing during acute hospitalizations of older adult patients. *Appl Nurs Res*. 2018;41:80–85. doi:10.1016/j.apnr.2018.04.009
18. Gísladóttir M, Svavarsdóttir EK. Educational and support intervention to help families assist in the recovery of relatives with eating disorders. *J Psychiatr Ment Health Nurs*. 2010;se18(2):122–130. doi:10.1111/j.1365-2850.2010.01637.x
19. Ménard D, Saucier A. John's story: an application of the Calgary family intervention model. *Can Oncol Nurs J*. 2000;10(2):64–68. doi:10.5737/1181912x1026468
20. Arief YS, Rachmawati PD. Parent empowerment program in caring for children with leukemia. *Enferm Clin*. 2019;29(Supplement 2):897–899. doi:10.1016/j.enfcli.2019.04.136
21. Rempel GR. Technological advances in pediatrics: challenges for parents and nurses. *J Pediatr Nurs*. 2004;19(1):13–24. doi:10.1016/j.pedn.2003.09.003
22. Clausson E, Berg A. Family intervention sessions: one useful way to improve schoolchildren's mental health. *J Fam Nurs*. 2008;14(3):289–313. doi:10.1177/1074840708322758
23. Brumfield R. A family systems approach to case management in a rural community setting. *Home Care Provid*. 1997;2(4):180–183. doi:10.1016/S1084-628X(97)90068-X
24. Holtslander L, Solar J, Smith NR. The 15-minute family interview as a learning strategy for senior undergraduate nursing students. *J Fam Nurs*. 2013;19(2):230–248. doi:10.1177/1074840712472554
25. Sigurdardóttir AO, Svavarsdóttir EK, Rayens MK, Adkins S. Therapeutic conversations intervention in pediatrics: are they of benefit for families of children with asthma? *Nurs Clin North Am*. 2013;48(2):287–304. doi:10.1016/j.cnur.2013.01.007
26. Broekema S, Luttik MLA, Steggerda GE, Paans W, Roodbol PF. Measuring change in nurses' perceptions about family nursing competency following a 6-day educational intervention. *J Fam Nurs*. 2018;24(4):508–537. doi:10.1177/1074840718812145
27. Martinez A-M, D'Artois D, Rennick JE. Does the 15-minute (or less) family interview influence family nursing practice? *J Fam Nurs*. 2007;13(2):157–178. doi:10.1177/1074840707300750
28. Simpson P, Yeung K, Yat K, Wah WK. Family systems nursing: a guide to mental health care in Hong Kong. *J Fam Nurs*. 2006;12(3):276–291. doi:10.1177/1074840706291436
29. John WS, Flowers K. Working with families: from theory to clinical nursing practice. *Collegian*. 2009;16(3):131–138. doi:10.1016/j.colegn.2009.04.001
30. Choi H, Van Riper M. mHealth family adaptation intervention for families of young children with down syndrome: a feasibility study. *J Pediatr Nurs*. 2020;50:e69–e76. doi:10.1016/j.pedn.2019.03.010
31. Dorell Å, Sundin K. Becoming visible - experiences from families participating in family health conversations at residential homes for older people. *Geriatric Nurs*. 2016;37(4):260–265. doi:10.1016/j.gerinurse.2016.02.015
32. Rosenbloom DA, Fick DM. Nurse/family caregiver intervention for delirium increases delirium knowledge and improves attitudes toward partnership. *Geriatric Nurs*. 2014;35(3):175–181. doi:10.1016/j.gerinurse.2013.12.004
33. Binding LL, Moreck AC, Moules NJ. Learning to see the other: a vehicle of reflection. *Nurse Educ Today*. 2010;30(6):591–594. doi:10.1016/j.nedt.2009.12.014
34. Lee ACK, Leung SSK, Mak YW. The application of family-nursing assessment skills: from classroom to hospital ward among final-year nursing undergraduates in Hong Kong. *Nurse Educ Today*. 2012;32(1):78–84. doi:10.1016/j.nedt.2011.01.013
35. Sveinbjarnardóttir EK, Svavarsdóttir EK, Hrafnkelsson B. Psychometric development of the Iceland-Family Perceived Support Questionnaire (ICE-FPSQ). *J Fam Nurs*. 2012;18(3):328–352. doi:10.1177/1074840712449203
36. Silva M, Moules N, Silva L, Bousso R. The 15-minute family interview: a family health strategy tool. *Revista da Escola de Enfermagem da USP*. 2013;47(3):634–639. doi:10.1590/S0080-623420130000300016
37. de Jesus Silva Figueiredo MH, da Silva Martins MMFP. From practice contexts towards the (co)construction of family nursing care models. *Revista da Escola de Enfermagem*. 2009;43(3):612–618. doi:10.1590/S0080-62342009000300017