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

Michael Mileski①, Rebecca McClay②, Katharine Heinemann①, Gevin Dray①

①School of Health Administration, Texas State University, San Marcos, TX, USA; ②School 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.1 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.1 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.2,3

Choosing to accept an intervention allows the family to implement the change in their behavioral domain in a way that fits
with the positive aspects of their family function. Thus, educating the bedside nurse through a family focus reinforces the centrality of family and promotes change in family functioning through the affective domain.

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. 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. CFIM has been used in previous implementation studies with a good effect on maintaining family roles and connections central to interventions. 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.

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). 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

### 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). Data from Wright et al.
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, 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. 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). 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). 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).
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.
| No. | Authors                        | Participants                                                                 | Intervention                                      | Results (Compared to Control Group)                                      | Medical Outcomes Reported | Study Design                                      |
|-----|-------------------------------|------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------|----------------------------|---------------------------------------------------|
| 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                    |
| 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  | Holtslander et al             | Undergraduate nursing students                                                | 15-minute family interview                        | No control group for comparison                                       | None reported              | Non-experimental                                 |

(Continued)
| 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)
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. 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 2 (Continued)

| No. | Authors | Participants | Intervention | Results (Compared to Control Group) | Medical Outcomes Reported | Study Design |
|-----|---------|--------------|--------------|-------------------------------------|---------------------------|--------------|
| 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 | Non-experimental, qualitative, interviews, non-experimental |

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

| Strength of Evidence | Frequency | Quality of Evidence | Frequency |
|----------------------|-----------|---------------------|-----------|
| I                    | 0         | A                   | 0         |
| II                   | 5         | B                   | 21        |
| III                  | 18        | C                   | 3         |
| IV                   | 0         | A                   |           |
| V                    | 1         | 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.
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)
| 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 clinician’s 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 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)
| 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 |
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  | Holtslander 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)
| 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                             |
|-----|---------|------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------|
| 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 actually 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                          |
|-----|------------------|-------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------|---------------------------------|
| 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 |
|-----|---------|--------------|--------|----------|--------|
| 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 |
|-----|---------|--------------|--------|----------|--------|
| 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 | | |
### 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 |
concerns, and psychiatric concerns of the patient.\textsuperscript{16,18,19} 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.\textsuperscript{15,20,21} Nursing interventions were found to be empowering to families to provide care for the patient.\textsuperscript{20,21} 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.\textsuperscript{17,22} Improved outcomes were seen in patients who normally underutilize healthcare resources.\textsuperscript{23} 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.\textsuperscript{20} With the increased knowledge regarding patient conditions came an increased ability of both family and patient to better manage symptoms.\textsuperscript{20} When families had conversations with nursing staff, this resulted in an increased capacity for healing of the patient and of family concerns.\textsuperscript{24,25} Families were able to find relief and were enabled to have positive affective, behavioral, and cognitive changes as a result of nursing interventions.\textsuperscript{22}

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.\textsuperscript{9,15,26–28} 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.\textsuperscript{17,26} 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.\textsuperscript{29} 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.\textsuperscript{29} 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.\textsuperscript{28} Education caused improvements to be seen in job satisfaction and improved morale of nurses.\textsuperscript{28} Increase autonomy was also exhibited with more education for nurses in controlling their work assignments.\textsuperscript{23}

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.\textsuperscript{29–31} Increased knowledge of disease process for
nurses helped to improve attitudes of collaboration with families and provided improved perspective of the patient/family situation.\textsuperscript{21,29,32} Stronger nurse–family relationships afforded better coordination of care plans and increased understanding of the patient.\textsuperscript{9,33} Education led to furthered viewpoint of nurses regarding the family as a unit of care.\textsuperscript{29} 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.\textsuperscript{9} 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.\textsuperscript{9} 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.\textsuperscript{52} 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.\textsuperscript{28} Nurses who explored beliefs and family strengths had better overall patient outcomes.\textsuperscript{28}

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.\textsuperscript{26,29,34} Increased levels of education adds important practical knowledge to the understanding of nursing roles and boundaries.\textsuperscript{26,29} Education leads to increased nursing confidence and competence in assessment skills and increased understanding of family needs and priorities.\textsuperscript{24,27} Increased education can lead to increased understanding of nurses regarding family illness experiences.\textsuperscript{15} When simultaneously educating nurses and families on patient condition and prevention of symptoms, an increased partnership can be built to provide the patient care.\textsuperscript{32} Education to nurses surrounding bedside manner allowed for an increase in family trust of the care being provided.\textsuperscript{24} Education overall led nurses to feel more comfortable in taking leadership positions to help promulgate information to other nurses on how to improve care.\textsuperscript{29}

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.\textsuperscript{16,21,25,30} Supportive conversations created opportunities for families to recognize their own strengths, needs, and experiences.\textsuperscript{25,30,35} Therapeutic conversations were quite effective in allowing nurses to help families in validating their own emotions and concerns regarding the patient and their condition.\textsuperscript{21,24} The use of writing communications allowing patients to journal their experiences allowed for increased understanding of conditions and compliance with care.\textsuperscript{18} Appropriate conversations between nurses and families allowed for greater compliance with treatment plans and greater compliance overall with “non-compliant” patients.\textsuperscript{23} Quality family communications were important factors in ongoing family mental health.\textsuperscript{22}

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.\textsuperscript{16,21,31,32,35} Clearer nursing communications led to easier understanding by patient and family regarding interventions being performed.\textsuperscript{18,19} Nursing interventions are shown to further provide family and patient with emotional support and engagement.\textsuperscript{21,31} Frequent interaction and reciprocity were noted in nurse/family relationships. This had positive connotations for nurses in perceptions towards families.\textsuperscript{9} Nurses are enabled to promote family/patient relationships by assisting family to get to know patients and conditions better.\textsuperscript{9} Patients expressed positive perceptions of nurses after more appropriate interactions were experienced between them.\textsuperscript{23}

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.\textsuperscript{17,22,24} 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.\textsuperscript{24,26,33} The use of specific tools such as genograms and ecomaps can assist nurses with interactions around patient care.\textsuperscript{24,26} Measurement tools can provide insights to family perceptions surrounding nursing interactions to include cognitive and emotional functions.\textsuperscript{16} 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.\textsuperscript{26,36,37} Increased education and training increased positive perceptions of support by nurses from administration and
Better understanding of why to use tools allowed for discovery by nurses to the beneficial nature of their usage. 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. Education led to increased support from families and can lead to treatment changes.

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. Resources such as websites provide to families allowed for more positive interactions and increased understanding of nursing interventions. Providing positive commendation to families allowed for positive emotions in nurses, which allowed for more rewarding experiences for nurses. 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. Circular questioning as a tool allowed for increased family understanding of beliefs, relationships, and interventions.

### 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. 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. 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. Organizational barriers exist such as increased pressure on nursing staff to perform, as well as budgetary constraints. Nursing views the model to be troubling and intrusive to family members. 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.

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. 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. Family members often were biased against nurses until they perceived sufficient levels of care coming from the individual nursing staff. 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, 22, 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.\textsuperscript{18,32} Certain groups exhibited diminished functioning within their family units, which created significant issues with the nurse–family relationship.\textsuperscript{9,27} Families often exhibited passive natures towards care or nurses, which created issues with the provision of care.\textsuperscript{9} Financial disparities of families often led to issues surrounding the provision of care.\textsuperscript{23} 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.\textsuperscript{31} 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.\textsuperscript{26,33,34,36,37} Nurses also report a lack of confidence in communications, skills, knowledge, or attitudes in their interactions with families.\textsuperscript{15,34,37} Many nurses reported not being confident in how to involve families in care planning or chosen interventions for care provision.\textsuperscript{22,28} 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.\textsuperscript{27,37} Nurses report that they do not understand how to cope with family suffering or other concerns.\textsuperscript{24} 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.\textsuperscript{24,25,30} A perceived lack of collaboration and failure to share information caused issues between the nurse and family members.\textsuperscript{21} Differing beliefs between family members caused difficulty in application of CFIM interventions.\textsuperscript{27} Family members were often reluctant to disclose problems regarding the patient or themselves.\textsuperscript{28} 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.\textsuperscript{26,29,33,36} The culture of the organization became disempowering towards attitudes and beliefs requiring time to resolve.\textsuperscript{21} Nurses have personal perceptions to overcome over time due to their own family experiences or unwillingness to confront their own family concerns.\textsuperscript{34} Lack of nursing or family commitment was recognized in 4/74 (5.41\%) of barriers. Family felt not included as partners in patient care.\textsuperscript{16,24} Family also became frustrated with the perceived lack of communication about patient condition and treatment plans.\textsuperscript{24} Families were often unable to commit to daily visits to patient causing a lack of family participation with the CFIM.\textsuperscript{32} Communications concerns were recognized in 4/74 (5.41\%) of barriers. Nurses were noted not to be communicating tools effectively to patients and families.\textsuperscript{17} Families became overwhelmed at the amount of information they had to learn and comprehend.\textsuperscript{21} Nurses became afraid of negative responses from family or making the patient angry.\textsuperscript{28} Nurses expressed doubts regarding the effectiveness and utility of family intervention tool.\textsuperscript{37} 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.\textsuperscript{15} 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.\textsuperscript{9} High psychological and emotional demand of many families caused concerns for many nurses in meeting expectations of families.\textsuperscript{16} 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.\textsuperscript{17} 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.\textsuperscript{23} 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.\textsuperscript{34} Certain programs became fragmented by the institution and the understanding of the programs became uncertain.\textsuperscript{37} 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.\textsuperscript{26}

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. Hshieh TT, Yang T, Cartaginis 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-Bruntont 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 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:10.1191/147808706qp063oa
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. Eggengerber 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. Sveinbjarnardottir EK, Svavarsdottir 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. J Nurs Stud. 2013;50(5):593–602. doi:10.1016/j.jnurstud.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. Family Care. 2012;29(4):217–223. doi:10.1016/j.auc.2016.09.002
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.pedin.2003.09.003
22. Clausen S, 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. Sigurardottir AO, Sveinbjarnardottir 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.pedin.2019.03.010
31. Dorell A, 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, Morck 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. Sveinbjarnardottir EK, Sveinbjarnardottir 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, Bouso 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/S0080-62342013000300016
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

Journal of Multidisciplinary Healthcare

Publish your work in this journal

The Journal of Multidisciplinary Healthcare is an international, peer-reviewed open-access journal that aims to represent and publish research in healthcare areas delivered by practitioners of different disciplines. This includes studies and reviews conducted by multidisciplinary teams as well as research which evaluates the results or conduct of such teams or healthcare processes in general. The journal covers a very wide range of areas and welcomes submissions from practitioners at all levels, from all over the world. The manuscript management system is completely online and includes a very quick and fair peer-review system. Visit http://www.dovepress.com/testimonials.php to read real quotes from published authors.

Submit your manuscript here: https://www.dovepress.com/journal-of-inflammation-research-journal

Journal of Multidisciplinary Healthcare 2022:15