



Caring for Family Caregivers: A Pilot Test of an Online COMFORT™ SM Communication Training Module for Undergraduate Nursing Students

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Abstract

Family caregivers who provide care and support to cancer patients experience distress, burden, and decreased quality of life as a result of caregiving. Caregivers often turn to nurses for support, however there is little training available for nurses on how to care for the family caregiver. Undergraduate nursing students have a high need to learn about engaging caregivers in care, but little content is presented to fulfill that need. Derived from the COMFORT™ SM communication curriculum, we developed a one-hour online educational module specifically addressing communication with family caregivers of cancer patients. Undergraduate nursing students (n=128) from two accredited nursing programs completed a survey at the beginning and end of the module, in addition to answering unfolding response opportunities within the module. There was a significant increase in communication knowledge, attitude, behaviors ($p < .000$) in post-test responses for students across all years of study. Knowledge based on responses to case study scenarios were more than 75% correct. Student open-ended responses to case-based scenarios featured in the module revealed student mastery and ability to apply module content (range, 40% - 56% across four scenarios). This online COMFORT™ SM communication training module is an innovative online cancer education tool for teaching about communication with family caregivers.

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Compliance with Ethical Standards: The authors disclose no conflicts of interest. Research involving human participants was approved by the University. Informed consent was obtained from all individual participants included in the study. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

This study finds the module effective for teaching undergraduate nursing students about communication with family, and shows promise in interprofessional curricula as well.

Keywords

cancer; communication; online nursing education; family caregivers

Introduction

Nurse communication skills are essential in the oncology setting where most patients and families face information overload and a steep learning curve about the disease and cancer treatment options. While communication is recognized as an essential skill in nursing, the quality of communication in nursing practice remains an ongoing concern for nurse education. Nursing students report that communication with cancer patients can be difficult and cause emotional stress [1]. Communication skills training programs have shown to improve nurse knowledge and skills with cancer patients [2]. Standardized patients have been used with undergraduate baccalaureate nursing students to teach nurse communication skills, showing improvements in confidence, communication skills, and clinical judgment [3].

One of the goals of a baccalaureate program is to prepare nurses to deliver care that respects and aligns with patient and family preferences [4]. Although general communication skills are taught in nursing school, with a focus on therapeutic interaction, these skills do not include instruction about how to communicate with caregivers. Nurse communication training is still relatively new and few training programs provide robust, evidence-based skill training. Existing programs have focused on discussions about fertility [5], self-efficacy in responding empathically [6], and discussing death, dying, and end-of-life goals of care [7], and have not yet included content to address caregiver support and information needs, to initiate conversations, or to determine what information and resources are most appropriate for certain caregivers. Communication barriers result in compromised psychosocial care for the patient and family as nurses lack experience with screening tools and do not know how to approach sensitive topics [8].

As the role of family caregivers continues to be a vital component of quality cancer care, there is a need for nurses to learn how to productively engage caregivers as nurses are often a pivotal source of support and information that family members look to [9]. To address this need, we developed an online educational module for undergraduate nursing students that outlines four family caregiver communication types in cancer care and includes communication strategies to aid in identifying and adjusting communication to each type in order to provide optimal care to the cancer caregiver.

Previously, this research team developed communication training for oncology nurses for face-to-face instruction [10]. Throughout these course offerings, we learned that 1) it is difficult for nurses to travel for continuing education; 2) employers are not always able to pay for this training; and 3) nurses that did attend a training wished they had learned the information much earlier in their career. As a result, we developed an online education

module to support face-to-face communication skills curricula in undergraduate nursing education. The purpose of this pilot study was to assess the impact of an online communication training module on nursing students' attitudes, knowledge, and behaviors regarding communication with cancer caregivers.

Materials and Methods

Module Development

The COMFORT^{TM SM} Communication Course for Oncology Nurses training program is a National Cancer Institute (NCI) supported project (R25CA174627) that educates oncology nurses about palliative care communication to improve patient-centered communication and cancer care. COMFORT^{TM SM} is an acronym, which stands for the seven basic principles of palliative care communication. The COMFORT^{TM SM} Communication Curriculum teaches oncology nurses how to deliver life-altering news, assess patient/family health literacy needs, practice mindful communication, acknowledge family caregivers, and address patient/family goals of care. Each module of the curriculum is grounded in communication theory and includes evidence-based communication skills. The curriculum is designed to give nurses the necessary tools to increase their own communication skills, teach communication skills to colleagues, and implement new processes for patient-centered care at their own institutions.

The train-the-trainer program has been taught to 355 oncology nurses nationwide, who have returned to their home institution and trained an additional 8,500 healthcare professionals across the United States. COMFORT has shown to improve oncology nurses' attitudes, comfort levels, and perceived self-efficacy regarding palliative care conversations [11] and improve nurse perceived confidence initiating difficult communication topics with family caregivers [12].

For this project, we modified Module F of the COMFORT^{TM SM} Communication Curriculum and developed an online module for undergraduate nursing students. Incorporating recent family caregiving literature, Module F is based on the Family Caregiver Communication Typology (FCCT) [13]. Grounded in a decade of research in palliative oncology, the FCCT framework identifies four caregiver communication types: Manager, Carrier, Partner, Lone. Each caregiver type differs in their communication competence with healthcare providers and their ability to obtain and receive services. Research shows that caregiver types influence the depth of caregiving burden [14], that caregivers exhibit specific communication behaviors with healthcare providers [15], that patient and family corroborate caregiver type [16], and that variance in caregiver outcomes confirms the typology [17]. Module F describes the communication features of each caregiver type, identifies the communication needs of each type, and offers specific communication strategies and skills for the nurse to employ with each type. Feedback received from national audiences of oncology nurses attending the two-day COMFORT^{TM SM} Communication training course have given further face validity to the typology. Finally, the module was reviewed by five nurse educators, working across of range of institutions, in its early drafting stage before module development, and after module completion. Open feedback was collected from these educators in written form addressing content, design, and sequence of materials.

Module Description

An instructional education designer proficient in online learning platforms and educational theory was contracted to design the online format of the educational material. Table 1 provides a summary of the topics covered in the online module. Three student learning objectives of the online module include knowing the four different caregiver communication types, describing the family communication patterns for each caregiver type, and responding to each given scenario in a manner responsive to different caregiver types. This module includes all of the American Association of College of Nurses curriculum guidelines required for baccalaureate nurses including practice-based learning and improvement, evidence-based practice, interprofessional and interpersonal communication skills, professionalism, and system-based practice [4].

Recruitment of Nursing Students

Nursing faculty at two accredited nursing programs (Los Angeles, California and Memphis, Tennessee) were sent an email describing the study, its purpose, and procedures. Faculty posted the announcement in the learning management system for their course. The announcement was directed to students and included a link to the online module. In some instances, nursing faculty offered extra credit for completion of the online module.

Compliance with Ethical Standards

The Institutional Review Board at California State University Los Angeles approved this study with a waiver of informed consent.

Evaluation of the Module

This pilot test of the online family communication module involved a pre-post test design. Students completed a 10-item survey prior to and immediately after completing the module. Survey items measured attitude (2 items), knowledge (5 items), and behavior (3 items), and were developed by the research team based on prior communication research. The online module also included a demographic survey.

Sections 5 – 8 of the module included three open-ended questions to qualitatively capture knowledge and behavior. Students were asked to describe family patterns illustrated in a video or case study and to identify the caregiver's communication characteristics, and responses were coded together as correct or incorrect knowledge of material. Finally, students were asked to explain what he/she would say or do for the caregiver portrayed in the video or case study. Training evaluation classifications described by Kraiger et. al [18] were used to code open-ended responses by assessing the student's ability to specifically orient to a caregiver type in crafting a description of their responsive behavior (i.e., the action to be taken).

Results

A total of 128 undergraduate nursing students (76 students from University of Memphis and 52 students from California State University, Los Angeles) completed the online module. Participants were primarily Caucasian (31.5%) and multi-racial (13.4%), followed by

African-American (12.6%). The mean age of students was 24.51 years. The majority of the participants were female (75.6%), English-speaking (82.7%), had taken an online course before (78.7%), and had no prior patient care experience (53.5%). Third year students were largely represented (40.9%), followed by second year students (22%), fourth year (18.1%), and first year (7.1%).

A paired samples t-test was conducted to assess pre and post online module attitude, knowledge, and behavior for communicating with caregivers. There was significant statistical difference in the scores for pre-test ($M=6.26$, $SD=1.88$) and post-test ($M=6.85$, $SD=1.70$); $t(126)=-3.713$, $p<.001$. Results suggest that the online module had an effect on nursing student attitude, knowledge, and behavior for communicating with caregivers. Findings demonstrate that mean scores on the post-test reflected higher change post-module completion as shown in Table 2. First and fourth year nursing students experienced the biggest change effect across student attitude, knowledge, and behavior.

Overall, 80% of nursing students responded to the three open-ended questions within the module. Students responded to case study scenarios by stating the caregiver communication pattern and identifying communication characteristics of each caregiver type. The majority of student responses correctly described the family communication pattern presented in the case study: Manager Caregiver (77.3%), Carrier Caregiver (76.6%), Partner Caregiver (81.3%), and Lone Caregiver (82%). Student descriptions of their behavior with each caregiver type in response to a case study scenario revealed that student mastery of content (level 2 or higher) ranged from 40% –56% across caregiver types. Mastery of content was highest for the Carrier caregiver type (56.5% of responses were at level 2 or higher) and Manager caregiver type (50% of responses were at level 2 or higher). Responses classified at levels 2–4 demonstrate fluidity of knowledge skills in addition to goal complexity and mastery. See Table 3 for frequencies and exemplars of leveled responses.

Discussion

The availability of an online course in communication is attractive to nurses whose goal is to deliver compassionate care. Curriculum in most nursing programs includes a communication skills lab as well as online and face-to-face instruction. One of the core essential components of curriculum for the baccalaureate nursing curriculum is to prepare nurses for practice with patients and families [4], however nursing programs lack curricular content that addresses family caregiver needs [19]. This pilot study, in which we examined the effectiveness of a one-hour online course, illustrates that nursing students did experience significant improvement in regards to their knowledge, attitude, and behavior on the topic of family caregiver communication.

Results present strong evidence that the dual-site student population significantly increased their knowledge, attitude, and behavior concerning specific family caregiver differences and needs. Findings from this pilot indicate that first and fourth year nursing students demonstrated the greatest responsive gain from the module content, suggesting that these time points in training may be the most salient for family communication content exposure.

The analysis of open-ended responses illustrates that module content did produce substantive rates of mastery in communication action and engagement, with highest rates of mastery linked to the Carrier caregiver, and lowest mastery rates reflected in response to the Lone caregiver. In consonance with these results, the Carrier is most receptive to support needs, while the Lone caregiver is resistant, suggesting that further development in module content can support the skills required to navigate care for the Lone caregiver [17]. In summary, nursing students demonstrated strong and complex facility in using tailored communication strategies with cancer caregiver types.

Online courses can be an innovative platform for delivering cancer education beneficial to the educational institution (cost-effective, flexible, interprofessional) and the student (engaging, interactive, self-paced) [20]. Given that there is no evidence privileging the quality of face-to-face over online education in nursing school [20], this model of a hybrid support module for in-class communication skills work is promising and successful. Our findings support the need to integrate this and similar modules into nursing programs, as well as other medical and healthcare professional schools. Cost savings, time flexibility, and content utility are benefits of this module in the delivery of communication instruction that is rigorous and evidence based. A recent review of undergraduate nursing programs concluded that continuing education models provide greater engagement and enhanced learning [21]. Although clinical communication skills are preferably and systematically taught by the clinical preceptor model, research has shown that this teaching strategy is limited by busy clinicians who often struggle to meet patient caseloads while also serving as preceptors to nursing students, sidelining content about family and patient communication [21].

Limitations

This pilot study is limited by an absence of formal course evaluation typical for student assessment of online learning. Moreover, implementation of course marketing through nursing faculty at two different nursing programs makes comparisons difficult and impacts reliability of findings. Generalizability is also limited as content on nurse communication and cancer care are likely to vary among undergraduate nursing programs. Future work is needed to develop skill content for caregiver types that are higher in burden, as well as to shape module course objectives that are specific, measurable, and aligned with the parent course under which the module is incorporated. Future study is needed to see the impact and force of this resource over time and in conjunction with other learning, and particularly with caregivers themselves.

Conclusion

Quality cancer care requires attention to the role of the caregiver, with nurses often on the front lines for providing information and support aimed at reducing the stress and burden of caregiving. This new learning module is an attractive concept for fostering care for the caregiver by integrating content into communication skill building for nurses, especially as they learn clinical skills and may not have time for additional instruction. This online resource offers a cost-effective way of delivering communication skills content and contributing to clinical training that prepares nursing students for the field. As online

educational platforms are more common in undergraduate education, the improved learning outcomes produced by our online module suggest that this is a good educational method and shows promise for interprofessional education.

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Table 1.

Topics covered in the online module

Learning Outcome	Section	Topic	Learning Activity
	1- Welcome Screen Pre-test	Start Button	
	2- Introduction and Learning Outcomes	<ul style="list-style-type: none"> A closer look at the challenges faced by family caregivers A closer look at communication challenges you may face with patient/family Overview of module 	<ul style="list-style-type: none"> Video - Voices of Family Caregivers regarding their experiences Case Study - Sharing life-limiting news with family members
Describe family communication patterns for caregivers	3- Family Communication Patterns	<ul style="list-style-type: none"> Adopting your communication approach to caregivers' unique family communication pattern <ul style="list-style-type: none"> Family Talk Family Obligation 	<ul style="list-style-type: none"> Video - How family communication patterns form Reflection and Assessment - Consider your family's communication pattern
Identify and define each caregiver type (Manager, Carrier, Partner, Lone)	4- Preview of the Four Family Caregiver Types	<ul style="list-style-type: none"> Introduction of the four types "How to spot" each type Strategies for communicating effectively with each type 	<ul style="list-style-type: none"> Video -Depiction of each caregiver type in family or medical context
Respond appropriately when communicating with caregivers and their families	5 - The Manager Caregiver	<ul style="list-style-type: none"> Characteristics of the type Best practices for communicate effectively for each type 	<ul style="list-style-type: none"> Reflection and Assessment - Consider the characteristics of the caregiver in the video and how to respond <ul style="list-style-type: none"> Instructor response after student submits reflection
	6 - The Carrier Caregiver		
	7 - The Partner Caregiver		
	8 - The Lone Caregiver		
	9 - Conclusion Post-test		

Table 2.

Pre-Post Mean Scores By Year of Nursing School

Year in Nursing School	Pre-test Mean (SD)	Post-test Mean (SD)	Difference in Mean	Significance Level
First (<i>n</i> =9)	5.44 (1.66)	7.11 (1.53)	+1.67	.051
Second (<i>n</i> =28)	6.57 (1.83)	7.03 (1.52)	+.46	.177
Third (<i>n</i> =52)	6.23 (2.14)	6.57 (1.85)	+.34	.170
Fourth (<i>n</i> =23)	6.52 (1.27)	7.17 (1.69)	+.65	.061

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Table 3.

Exemplars of Knowledge Level Responses and Frequencies by Caregiver Type

Level of Response	Scenario By Caregiver Type	% of responses	Example from student responses
<u>Level 1, Generic</u> Non-specific response to caregiver type	Manager	43%	<i>Make sure everyone is on the same page</i>
	Carrier	31%	<i>Seek support</i>
	Partner	51%	<i>Suggest additional help</i>
	Lone	47%	<i>Provide support</i>
<u>Level 2, Mastery</u> Responsive to caregiver type with clear inclusion of one caregiver- specific action, indicating mastery	Manager	44%	<i>Speak to all family</i>
	Carrier	43%	<i>I will encourage her to use the support of her family</i>
	Partner	42%	<i>Ask what the caregiver needs from the healthcare team</i>
	Lone	25%	<i>One-on-one conversation</i>
<u>Level 3, High Mastery</u> Responsive to caregiver type with clear inclusion of two caregiver- specific actions, indicating high mastery	Manager	6%	<i>Discuss a process; Give options; Discuss consequences of quick decisions</i>
	Carrier	12%	<i>Take some time out of the day just for you; talk to your parents and talk to the family to try and let them help you</i>
	Partner	1.5%	<i>Facilitate family meetings to discuss caregiving and support. Ask "what do you need from the team?" " and "How are you holding up?"</i>
	Lone	10%	<i>Use simple and clear language; one to one conversation</i>
<u>Level 4, Highest Mastery</u> Responsive to caregiver type with clear inclusion of three caregiver specifications, indicating highest mastery	Manager	0%	
	Carrier	1.5%	<i>It is important to tell the caregiver she is doing an excellent job as a caregiver; provide emotional support and encouragement for the work he is doing and stress the importance of self-care. Encourage him to share his feelings about caregiving and how it has impacted life. Remind caregiver to do something for himself everyday. Even if it is just 15 minutes</i>
	Partner	1%	<i>Encourage the caregiver to continue what they are doing and thank them for their work. Provide as much information as possible so they can delegate. Ask how we can make their experience as smooth as possible and what they need</i>
	Lone	5.5%	<i>One on one support, use simple terms, provide resources for support and respite care</i>

* Responses at level 2 and higher demonstrate fluidity of knowledge skills in addition to goal complexity and mastery.