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Overview and Experiences of a Nursing e-Mentorship Program

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Abstract

Little is known regarding the feasibility and efficacy of an online continuing education program for oncology nurses. The Multiple Myeloma Mentorship Program, a quality improvement project for the Institute for Medical Education and Research, was designed to meet the educational needs of oncology nurses caring for patients with multiple myeloma. Twenty-five expert nurses with expertise in multiple myeloma from 23 cancer centers in the United States partnered with 50 oncology nurses in an electronic format from July 2009 to January 2010. The purpose of the program was to educate oncology nurses about the latest treatments and strategies for optimal side-effect management for patients with multiple myeloma. Nurse mentees selected their preferred form of learning—webcast, in-person speaker, or monograph. Two live webcasts allowed for didactic discussion between mentors and mentees. During and after the program, mentors conducted informal, unscripted interviews with nurse participants to determine preferred learning format, challenges, and implications for practice. Twelve nurses preferred Web-based learning to in-person presentations, citing flexibility and convenience as reasons for that choice. Time constraints with Web-based and in-person learning were a barrier to nurse mentees completing assigned modules. Several nurses implemented practice changes as a result of the program. Nurses who participated in the mentorship program were satisfied with the content. Learning styles and format should be considered in future mentorship programs.

Introduction

The field of cancer nursing is evolving continually. New therapeutic agents have been developed since 2000, which provide additional treatment opportunities for patients. Integral to the success of patients and their tolerance to therapy is the support of nurses. These individuals are in the unique position to educate patients about anticipated side effects and intervene when appropriate. For nurses, the first step in managing side effects is an understanding of the disease process and medications that are given to treat the illness.

Nurse educators are employed at many hospitals and in community settings to furnish programs that provide continuing nursing education (CNE), which is an important component of maintaining certification in the field of oncology nursing. Prior research has shown that mentoring programs can successfully bridge novice or junior members of a profession with experienced or established members (Miller, Devaney, Kelly, & Kuehn, 2008). Because of time and geographic constraints, an e-mentoring (i.e., online mentoring)

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DISCLOSURE OF CONFLICTS OF INTEREST

This program was sponsored by the Institute for Medical Education & Research (IMER). IMER requires instructors, planners, managers, and other individuals who are in a position to control the content of this activity to disclose any real or apparent conflict of interest they may have as related to the content of this activity. All identified conflicts of interest are thoroughly vetted by IMER for fair balance, scientific objectivity of studies mentioned in the materials or used as the basis for content, and appropriateness of patient care recommendations.

program in a previous oncology nursing study was found to be effective (Miller et al., 2008). Nurses who attended oncology education programs sponsored by the Institute for Medical Education and Research (IMER) were asked what topics they would like to learn more about. Respondents stated they wanted more CNE that focused on the care of patients with multiple myeloma (MM). The current study's author developed an e-mentorship program to address that established need for CNE, focusing on the side effects and management of patients with MM.

Most nurses care for patients with a variety of diagnoses. The Multiple Myeloma Mentorship Program was created to address the needs of nurses who may care for a variety of patient types and desire to learn more about MM. The program linked nurses and nurse educators with a MM nursing expert who acted as a mentor to help the institution to (a) identify unmet educational needs in MM, and (b) design a curriculum to satisfy their needs. The programs were accredited through IMER, an approved provider of CNE. Nurses learned of the program through mailings sent by IMER and through IMER's Web site, and the program was made available to any institution that requested it. Each mentor was assigned to as many as five mentees across the United States. The program was sponsored through an unrestricted educational grant from Millenium: The Takeda Oncology Company, but funded through IMER. Mentors were paid honoraria for their time.

Based on discussions with the mentee, the nurse mentor designed a curriculum with on-site or online accredited activities. The topics included an MM overview with treatment options, venous thromboembolism, peripheral neuropathy, oral therapy adherence, and MM clinical monitoring and interpretation. Mentees were not required to complete every module but were encouraged to select four modules in their preferred format (e.g., Web-based, in-person, e-monograph). Each mentee then served as a mentor and facilitator to nurses at their institution.

During the mentorship period, each mentor conducted two CNE-accredited live webcasts with their mentees. The purpose of this was multifactorial: to review highlights from the curriculum presented, answer any outstanding questions, discuss successes and challenges in each mentee's practice related to the management of patients with MM, identify any ongoing educational needs of the institution, and provide resources to keep each mentee up-to-date on MM research. The discussions also were designed to allow for peer-to-peer interaction with nurses from similar practice settings. Each program awarded free CNE hours to nurses and mentees. The mentorship period took place from July 2009 to January 2010.

Background and Significance

When developing the program format, feedback from nurses participating in CNE activities online and via live programs was collected. Many requested a mix of Web-based and live instructional formats. A comprehensive review of the literature was performed to determine the effectiveness of that approach. Studies from 1995–2009 were reviewed using the following key words in CINAHL®, MEDLINE®, and PubMed: *nursing, mentorship, cancer, Internet, continuing education, and educator*.

Many studies and anecdotes from a variety of disciplines were found, but few addressed the unique needs of cancer nurses. Despite small studies, results generally showed that e-mentoring can overcome geographic and time constraints while using electronic communication to provide learning opportunities to wider and more diverse groups of people (Single & Single, 2005). Surprisingly, few studies have been performed with a focus on a Web-based mentorship program for CNE (Masny, Ropka, Peterson, Fetzer, & Daly, 2008; Miller et al., 2008; Nalle, Wyatt, & Myers, 2010) and, specifically, oncology CNE

(Hoon, Newbury, Chapman, & Price, 2009; Johnson & Gravelle, 2002; Pasacrete, Kenefick, & McCorkle, 2008). Thus, a pilot program was developed to educate nurses on the unique side effects of patients with MM.

MM was chosen because of the many treatment developments in the past decade, including better medications and improved supportive care. A cancer of the bone marrow plasma cells, MM affects about 20,000 individuals in the United States annually (Jemal et al., 2009). Hallmarks of MM include back pain, anemia, renal insufficiency, and neurologic complications (Faiman, 2007). Although incurable for most patients, survival has increased, in part, because of the advent of newer classes of drugs, such as oral immunomodulatory agents (e.g., thalidomide, lenalidomide) (Celgene Corporation, 2009) and proteasome inhibitors (e.g., bortezomib) (Millennium Pharmaceuticals, 2009). Each of these drugs differs from traditional chemotherapy by its mechanisms of action, and each has improved survival rates in patients with MM. Patients with MM need education regarding the disease and treatment-related side effects and prompt intervention for their management. Common side effects of MM and its treatment include peripheral neuropathy symptoms, which are characterized by numbness, muscle cramping, and pain and ultimately can lead to decreased functioning and quality of life. The risk of venous thromboembolic events is elevated in many patients with cancer but can be as high as 75-fold in patients with MM receiving newer therapies. Gastrointestinal side effects, steroid-related side effects, and adherence issues with oral therapies (Faiman, Bilotti, Mangan, & Rogers, 2008; Rome, Doss, Miller, & Westphal, 2008; Smith, Bertolotti, Curran, & Jenkins, 2008; Tariman, Love, Mc-Cullagh, & Sandifer, 2008) can cause deleterious effects and significant morbidity, and can limit a patient's ability to receive the appropriate doses of anticancer medication required for disease control. If improperly treated, side effects may lead to decreased cancer treatment compliance (Bertolotti et al., 2008).

Program Content

Five individual curriculum topics that had relevance in caring for patients with MM were offered to each mentee: (a) overview of MM with treatment options, (b) optimizing management of oncologic emergencies: a module-based workshop for oncology nurses, (c) overview of cancer treatment-induced peripheral neuropathy, (d) improving adherence to oral chemotherapy, and (e) nursing management of patients with MM: anticipate, monitor, diagnose, and respond.

At the initial telephone meeting between mentors and mentees, mentees were encouraged to discuss their individual strengths, weaknesses, interests, and gaps in knowledge for these topics. Mentees were then asked to select their preferred form of learning (e.g., webcast, live speaker, e-monograph). No standard curriculum was used throughout the institutions. Mentees were not required to complete each module but selected those that they felt met the needs of the institution. Each mentee was paired with a mentor who served as a coordinator of the nurse education program at their institution.

Mentees ranged from novice nurses with less than one year of oncology experience to seasoned nurse educators with experience in a variety of practice settings. Mentees cited a number of reasons for joining the program, including a desire to learn more about the care of patients with MM and the chance to obtain free CNE.

Methods

Data Analysis

To evaluate the successes and challenges of the program, mentors were asked to compile feedback from each midyear (October 2009) and end-of-program (January 2010) webcast in an unscripted and informal survey format. These allowed interaction among participants and were the main vehicles for data collection. Telephone conference calls provided mentors the opportunity to gather rich information and insight regarding the program. Mentors asked open-ended questions of the mentees during each of the webcasts, and a transcript from each webcast was compiled.

All identifying data were removed from the spreadsheets and a meticulous review and analysis of the mentor's comments were performed. Phrases were highlighted, circled, and/or underscored if they referred to the mentor's or mentees' impressions of the program. A second read-through of the transcript focused on identifying emergent themes and assigning codes to the themes and descriptors. The highlighted, circled, and underlined segments were paraphrased in the margin next to the corresponding segment. Abridged phrases were placed in the margins throughout the transcript, and then statements were clustered and titles were given to each cluster. Categories were grouped as subthemes.

After the author read the transcript at least three times, Microsoft Word® was used to edit, re-edit, and place the data in a tabular format to reflect theme code, participant response, and sequence. The transcripts were read several more times. The most common recurring themes were identified. A list of abridged responses can be found in Figure 1. A matrix was constructed that demonstrated dimensions of the themes and relationships among themes. Details of main themes were described under headings. Salient quotations from the group participants were identified and used to reinforce themes. Rigor was established by using a systematic approach to the result analysis.

Results

The pilot program was a quality improvement initiative sponsored by IMER. Nurses provided verbal consent to participate in the program and opted in by requesting to participate, so the program did not require institutional review board approval. In the program, 25 expert nurses from 23 cancer centers in the United States partnered with 50 nurses and nurse educators from 49 different institutions. Forty-nine mentees completed at least one module. Unfortunately, measurable outcomes were not established at the outset of the program, which limits the findings. However, gaps in the literature of quality improvement programs were found, as little research has been done regarding aspects of e-mentorship programs using a large group of nurses with a variety of learning methods, as was the case in the current mentorship program. After survey data analysis, several themes emerged, including (a) preference of learning format, (b) technologic challenges with accessing Web-based programs, (c) time challenges to complete Web-based or live programs, (d) implementation of practices, (e) content delivered, (f) communication between mentors and mentees, and (g) cost effectiveness of the Web-based learning format.

Preference of Learning Format: Web-Based Versus In-Person Meeting

Most states require CNE for nurses to maintain licensure. Previous research has shown that nurses and other groups refer to the Internet for CNE and that no difference in knowledge development exists between in-person and Web-based education (Khatony, Nayery, Ahmadi, Haghani, & Vehvilainen-Julkunen, 2009). In-person programs offer the opportunity to answer questions in an interactive format. Barriers to participating in Web-

based, in-person, or e-monograph CNE may include program costs, travel, and time away from work (Nalle et al., 2010).

Congruent with previous research, many participants in the MM mentorship program enjoyed the convenience and flexibility the webcasts allowed. The mentee at one institution particularly enjoyed the live webcast format. She provided food for the nurses and held group webcasts before or after clinic hours to avoid interruptions. She felt doing so supported the learning process and allowed the nurses to discuss the information presented.

Other individuals who participated in the in-person program felt that listening to a speaker was more effective than reading an article, and they appreciated being able to ask questions of a live speaker. One participant commented that although the timing of archived webcasts was flexible, they seemed a bit informal, and she missed the personalization other formats provided.

At the beginning of the mentorship program, one nurse stated she believed the webcast format would be easier. However, because of time constraints, many nurses were not able to complete the webcasts in the time allotted. As compared to scheduled in-person presentations, the webcasts often were placed on the backburner if other responsibilities were deemed more important by the nurse. Therefore, the nurse suggested that an in-person program with a nurse educator would be better in the future to ensure completion of the program modules.

One mentor mentioned that much discussion occurred in her webcast over which learning format would be best for each group of nurses. She commented that some nurses wanted information provided in monograph form. They felt that their practices did not have enough computer access or skills to use the Web format. They also mentioned that they would like to have journal clubs and work through the material at their own pace. "...it seems that some nurses would like their information provided in monograph form. They feel that their practices don't have enough computer access or skills to utilize the Web format. They would like to be able to have 'journal clubs' and work through the material at their own pace."

Technologic Difficulties

For those who chose Web-based modules, a few technical difficulties were noted. First, several nurses had trouble accessing the Web site and using the appropriate link to the webcast. One nurse commented that she had to create a log-in, and by the time she worked out the problem, she had run out of personal time to view the module. Another nurse said she had a hard time getting started because of difficulty getting information and dates for accessing modules, but that eventually was resolved. Others did not check e-mails frequently and did not receive the links in a timely manner. Most nurses responded that once the technical difficulties were resolved, the webcasts were easy to access (Insert Figure 1 here).

Time Challenges

One of the most common issues and biggest challenges of the program was engaging nurses in their practice setting to attend in-person meetings or participate in webcasts. For nurses assigned to webcasts, completing the curriculum during a specified time period was difficult for many because of scheduling, staffing issues, personal time constraints, and major winter holidays. That was relatively unanticipated, as the author hypothesized free CNE would motivate nurses to complete the modules in a timely manner. The author noted during the program that nurses in all settings were challenged with work and personal time commitments. One nurse commented that the strength of in-person programs was better engagement of staff and a better venue to learn; however, she found it was challenging to get

nurses to attend. Programs were promoted through e-mail, having food provided, and emphasizing that free CNE was available. Webcasts, on the other hand, were very easy for nurses to access but were less engaging.

A recurring theme and reason for nurses who were slow to complete the modules was timing. Nurses were asked to complete webcasts independently during December and January, and several nurses commented that major holidays, staffing issues, and other concerns led nurses to make completing the modules a low priority. Others agreed that a supposed lack of interest among the nurses at one institution was related to the bad timing of the program, as it coincided with major holidays. One participant felt nurses may have been too busy to complete the requirements.

A nurse at a community hospital felt her colleagues did not want to complete the modules on their personal time off and wanted to complete them on work time. With low staffing, that was not possible, as was the case for many nurses in the mentorship program. Another nurse commented that she worked in a hospital with budget constraints, so nurses were not able to get paid for completing the work on their own time, and they did not have time at work to complete the modules. In contrast, one mentee said she had excellent administrative buy-in for education, as all nurses were scheduled for an hour away from the bedside every two weeks to allow for education; however, that was not the norm.

Implementation

As a result of the mentorship initiative, several nurses have implemented practice changes. One institution began using the peripheral neuropathy assessment tool with its patients, based on recommendations from the peripheral neuropathy module and fall webcast. Another nurse instituted practices, such as color-coded calendars for her patients with drug schedules, doses, and blood draw appointments, that helped her patients remember to take medications as scheduled and adhere to the oral regimens.

Another nurse educator implemented a “passport program” that was mandatory for all nurses to complete. When nurses completed modules, they received a “stamp of approval” for each, which showed that they had completed education that allowed them to care for patients with MM more effectively.

Content

All feedback regarding content was positive for in-person and Web-based programs. A few nurses commented that information for future programs may be better if delivered sequentially and tailored to the new nurse or advanced nurse. Most thought the content of all modules was very good and applicable to their daily practice. One nurse stated that MM was not a common cancer seen in her clinics and a significant gap in knowledge existed of the disease, treatment options, and symptom management, all of which were filled by the mentorship program.

Communication

The mentorship program was designed to have a mentor in one geographic location linked with an institution that was, in many instances, in a different area. Electronic communication via e-mail, telephone, or Web conferencing connected mentors with mentees. Mentors never physically met their mentees, except in one institution. One nurse commented that she expected more interaction between the mentor and the nurses enrolled in the program.

Others felt the connection with the mentor was reasonable and did not mind communicating via telephone or webcast. Most nurses commented that the midyear and year-end webcasts

allowed them to share information with others and connect with mentors, and they found the experience very helpful. One participant suggested a monthly e-mail to remind participants of programs and deadlines as a positive way to improve communication.

Cost Effectiveness

One of the key benefits of the program was its cost effectiveness. The program was sponsored by IMER, so no cost was associated with participation for the mentees. Nurse educators at each institution encouraged their staff to participate in the free CNE program. One nurse educator said she liked the program because budget cuts within her institution had limited conference attendance for CNE. Nurses were not required to travel for the program, which also contributed to overall cost savings for the institution. Not all institutions were able to provide “protected” time for nurses in which each was scheduled away from patient care to attend, but nurses had the opportunity to view Web-based or in-person modules during lunch time or after hours, leading to scheduling flexibility and contributing to cost savings.

Discussion

Implications for Practice

Continuing education for nurses is critical to the advancement of the profession. Furthermore, the paradigm of cancer care is evolving continually and oncology nurses need to remain abreast of emerging treatments and supportive therapies to provide the best care for patients. The MM mentorship program is an innovative approach to specialized CNE. After conducting the pilot program, time evidently is a major barrier for nurses to completing learning modules, but Web-based programs and e-monographs still are preferred by some independent learners. Many nurses and mentors felt the link between each format was reasonable, but they wanted more personalization, as the mentor was not the individual delivering the CNE activity but acted as a liaison to enhance comprehension of the modules delivered. Moving forward, nurses involved in CNE programs of this nature as mentors should strive to personalize the relationship and could be responsible for delivering the education. In addition, better evaluation of quality, satisfaction, and learning style should be performed to improve research and understanding. (Insert Figure 2 here).

Conclusion

The purpose of the pilot program was to educate nurses regarding diagnosis and management of patients with MM using an e-mentorship program. To accomplish that goal, nurses and nurse educators from across the United States were paired with expert MM nurses to guide each mentee through the learning process in a variety of formats while avoiding time constraints associated with travel.

Although limited by lack of prospective design, the findings of the pilot program provided insight into the learning needs of nurses in various institutions and can be generalized, given the diversity of participants. The author learned important concepts to springboard future programs and ways to improve the current program. Better prospective evaluations and standardized data collection techniques are warranted, which will lead to valid conclusions.

References

- Bertolotti P, Bilotti E, Colson K, Curran K, Doss D, Faiman B, Westphal J. Management of side effects of novel therapies for multiple myeloma: Consensus statements developed by the International Myeloma Foundation's Nurse Leadership Board. *Clinical Journal of Oncology Nursing*. 2008; 12(3 Suppl):9–12. [PubMed: 18490252]

- Celgene Corporation. Lenalidomide (Revlimid®) [package insert]. Summit, NJ: Author; 2009.
- Faiman B. Clinical updates and nursing considerations for patients with multiple myeloma. *Clinical Journal of Oncology Nursing*. 2007; 11:831–840.10.1188/07.CJON.831–840 [PubMed: 18063542]
- Faiman B, Bilotti E, Mangan PA, Rogers K. Steroid-associated side effects in patients with multiple myeloma: Consensus statement of the IMF Nurse Leadership Board. *Clinical Journal of Oncology Nursing*. 2008; 12(3 Suppl):53–63. [PubMed: 18490257]
- Hoon EA, Newbury JW, Chapman P, Price J. Education to improve cancer care in rural South Australia. *Rural and Remote Health*. 2009; 9:1147. [PubMed: 19382827]
- Jemal A, Siegel R, Ward E, Hao Y, Xu J, Thun MJ. Cancer statistics, 2009. *CA: A Cancer Journal for Clinicians*. 2009; 59:225–249.10.3322/caac.20006 [PubMed: 19474385]
- Johnson L, Gravelle D. Mentorship: Can it help nursing provide improved cancer care closer to home? *Canadian Oncology Nursing Journal*. 2002; 12:229–230. [PubMed: 12518474]
- Khatony A, Nayery ND, Ahmadi F, Haghani H, Vehvilainen-Julkunen K. The effectiveness of web-based and face-to-face continuing education methods on nurses' knowledge about AIDS: A comparative study. *BMC Medical Education*. 2009; 9(1):41. [PubMed: 19591678]
- Masny A, Ropka ME, Peterson C, Fetzer D, Daly MB. Mentoring nurses in familial cancer risk assessment and counseling: Lessons learned from a formative evaluation. *Journal of Genetic Counseling*. 2008; 17:196–207. [PubMed: 18224431]
- Millennium Pharmaceuticals. Bortezomib (Velcade®) [package insert]. Cambridge, MA: Author; 2009.
- Miller LC, Devaney SW, Kelly GL, Kuehn AF. E-mentoring in public health nursing practice. *Journal of Continuing Education in Nursing*. 2008; 39:394–399. [PubMed: 18792604]
- Nalle MA, Wyatt TH, Myers CR. Continuing education needs of nurses in a voluntary continuing nursing education state. *Journal of Continuing Education in Nursing*. 2010; 41:107–115. [PubMed: 20229960]
- Pasacrete JV, Kenefick AL, McCorkle R. Managing distress in oncology patients: Description of an innovative online educational program for nurses. *Cancer Nursing*. 2008; 31:485–490. [PubMed: 18987517]
- Rome S, Doss D, Miller K, Westphal J. Thromboembolic events associated with novel therapies in patients with multiple myeloma: Consensus statement of the IMF Nurse Leadership Board. *Clinical Journal of Oncology Nursing*. 2008; 12(3 Suppl):21–28.10.1188/08.CJON.S1.21–27 [PubMed: 18490254]
- Single, P.; Single, R. Kochan, FK.; Pascarelli, JT., editors. How face-to-face mentoring sets the stage for e-mentoring; Mentoring and the technology revolution. 2005. p. 301320Retrieved from <http://www.uvm.edu/~pbsingle/pdf/2005Single2.pdf>
- Smith LC, Bertolotti P, Curran K, Jenkins B. Gastrointestinal side effects associated with novel therapies in patients with multiple myeloma: Consensus statement of the IMF Nurse Leadership Board. *Clinical Journal of Oncology Nursing*. 2008; 12(3 Suppl):37–52.10.1188/08.CJON.S1.37–51 [PubMed: 18490256]
- Tariman JD, Love G, McCullagh E, Sandifer S. Peripheral neuropathy associated with novel therapies in patients with multiple myeloma: Consensus statement of the IMF Nurse Leadership Board. *Clinical Journal of Oncology Nursing*. 2008; 12(3 Suppl):29–35.10.1188/08.CJON.S1.29–35 [PubMed: 18490255]

At a Glance

- Learning about the diagnosis and management of specific cancers can be challenging for nurses.
- Time to complete learning modules independently may be limited by personal and work responsibilities.
- Various learning styles and levels of education need to be considered when creating future mentorship programs.

Feedback Regarding Webcast

- Participants liked having live webcasts. Mentee provided food for the nurses and did the webcasts before or after clinic hours to prevent interruptions. Mentee thought it was a nice way to help all the nurses discuss the information presented and support the learning process.
- Mentee had trouble finding enough "down time" outside of work to complete tasks outside the setting of a structured lecture.
- Webcast format was a little impersonal, but the nurses in attendance asked relevant questions.
- The availability of the material online was a great way for participants to have ready, flexible access for all of the information. The online programs were very well done and easy to access.
- The archived programs allowed people to do it when they had time available—very flexible and convenient. Staff members were so busy and so tired that mentors must use creative ways to keep them involved.

Feedback Regarding Live Program

- Felt hearing a speaker was more effective than reading an article. Nice to be able to ask questions of a live speaker.
- Originally believed that the webcast format would be easier, but thought that in the future a live program with a nurse educator would be better.
- Everyone loved the live programs, and they felt that the practicum of the peripheral neuropathy was most helpful and unique presentation.
- Mentee would have liked more availability of live programs/webcasts, as she felt that the interaction piece of learning was very important.
- Although they enjoyed the live programs, they felt that the information was too specific and would have liked for it to be more general.

Time Challenges to Completion of Program

- Would recommend doing prep work in the fall and completing modules in the late winter/spring time (January–March) when not so busy.
- Felt that the staff did not do the modules as anticipated because of poor timing—major holidays, staffing issues, and other concerns that led to the nurses making it a low priority at this time.
- Worried that some were too long and would be hard for a staff nurse to complete over a lunch hour. For example, the oral adherence module was almost 90 minutes as it included a variety of oral agents. Perhaps a more myeloma-targeted module would be helpful.
- Lack of time for RNs to leave their work and attend was another huge issue. One mentee said she had excellent administrative buy-in for education and RNs were scheduled for an hour away from the bedside every two weeks. All other mentees thought this was a wonderful commitment and wished they had the same in their own setting.

Technologic Difficulties

- Difficulty accessing the modules online
- Technical problems early on in the program, but resolved these with the assistance of IMER staff
- One of the mentees had to create a log in, had difficulty, and by the time she worked out the problem, she had run out of (personal) time to view the module.
- Rocky getting started because of difficulty getting information and dates for accessing modules, but felt it has been worked out.

Cost Effective

- A good way to get continuing education units for staff during time of budget constraints and no allowance for travel to conferences
- Main challenge was working in a hospital with budget constraints. Employees were not able to get paid for completing the work on their own time and did not have time at work to complete the modules.

Communication Between Mentor and Mentee

- Frustrating trying to contact mentees
- Felt the connection with the mentor was reasonable
- Expected more interaction between the mentor and the nurses.
- Thought that the mentor would be more involved with educating the nurses but enjoyed the webcasts because they were opportunities to share information with others.
- Suggested a monthly "blast" e-mail to remind participants of programs/ deadlines, etc., so all remember to keep up with requirements.
- Not sure what she and her mentor were supposed to be doing.
- Mentees wished there had been more specific contact from their mentors, but understood the challenges with people's schedules. They appreciated the mentors' input and thought it helped them overall.
- In general, the mentees were a bit hesitant to comment about the mentor/mentee relationship. No one was negative, but they were somewhat unsure about how the mentors could have helped them more.

Implementation or Practice Changes as a Result of Program

- Institution has implemented peripheral neuropathy assessment tool with its patients based on recommendations from peripheral neuropathy module and fall webcast.
- Mentee instituted practices that help patients remember and adhere to the oral regimens by providing them with color-coded calendars with drug schedule and doses as well as blood draw appointments.
- Mentee developed what she called a passport program that was mandatory for all nurses to complete (eventually completing all four modules) and getting a "stamp of approval" when completed, and would recognize that this nurse had completed education that allowed her to more effectively care for patients with myeloma.

Content That Was Liked and Disliked

- Liked the comprehensive oral chemotherapy module. Liked that it covered all oral chemotherapies (not just myeloma agents)—many agents covered that mentee's institution has never seen used in practice.
- Liked peripheral neuropathy program. Mentee has not seen regular use of tool in her institution's practice but hopes to.
- Tons of information in oral chemotherapy module. Really liked it.
- Clinical monitoring was very in-depth. Learned new information even as a very experienced nurse. Wondered if less-experienced nurses were overwhelmed. The case studies at the end were very helpful for pulling the information together. Mentee considered doing multiple myeloma chart reviews to further her nurses' reviews of clinical monitoring.
- Oral adherence was very helpful as more oral treatments are being used. Need for education, follow-up, and resources.
- A couple of RNs participated in the program, but they presented the information to the group following webcasts; liked Web and monograph.
- Thought it would be helpful to restructure the modules chronologically—Multiple Myeloma 101, clinical monitoring and laboratory interpretation, then look at side effects and management, followed by medication adherence
- Information from mid- and end-year review can be translated into a nursing teaching tool/poster as reminder regarding peripheral neuropathy assessment and oral adherence assessment.
- Oral adherence information can be generalized to all oral treatments, not just multiple myeloma.
- Felt the program probably would have benefited from live presentations because the unit was new.
- Some thought the content of all modules was very good and applicable to daily practice. They all stated that multiple myeloma was not a common cancer seen in their clinics and there was a significant gap in knowledge of disease, treatment options, and symptom management.

Figure 1.
Abridged Participant Responses by Theme

Figure 2.
Key Features of a Nurse Mentorship Program