Education for Primary Care Providers on Advance Care Planning

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Education for Primary Care Providers on Advance Care Planning

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Abstract

**Background:** Advance care planning (ACP) is a discussion of a patient’s end-of-life healthcare wishes. Its purpose is to indicate these wishes clearly should the patient be unable to make their decisions known to providers and family members due to a sudden health decline or medical emergency. Healthcare providers, specifically nurse practitioners, physician assistants, and physicians in the primary care setting, are well-positioned to facilitate these conversations with their older adult patients. However, research states that limited provider knowledge of and confidence in implementing ACP are significant barriers to its application in practice.

**Problem:** At a primary care clinic in Midtown Sacramento, CA, there was little emphasis on ACP in the primary care setting. Consequently, the clinic’s providers had insufficient knowledge of ACP and limited confidence in discussing EOL care plans with patients.

**Intervention:** This Doctor of Nursing Practice (DNP) project provided a 30-minute educational session for clinic providers on ACP. The presentation was conducted with PowerPoint on a live Teams video meeting. The presentation defined ACP, described its importance in primary care, discussed common barriers to its implementation, and offered the providers tools to enhance their ACP practices.

**Measures:** Using pre- and post-intervention surveys, the project explored the effects of the educational session on provider-reported knowledge of ACP, confidence in having these EOL conversations, and the likelihood of practice change around this aspect of patient care.

**Results:** Twenty-one clinic providers attended the educational presentation on ACP. The audience consisted of nurse practitioners, physician assistants, and physicians. Twelve providers participated in the pre-intervention survey and eleven participated in the post-intervention survey. Survey results indicated an increase in provider knowledge and confidence around
facilitating ACP in the primary care setting and most providers reported being likely to change their ACP practices after the educational session.

**Conclusion:** Healthcare providers require continuing education on ACP to adequately discuss EOL planning and care alternatives with patients. By obtaining more knowledge on ACP, providers can increase their confidence in integrating ACP into practice, ultimately benefitting patients’ care and quality of life.

*Keywords:* advance care planning, end of life, palliative, nurse practitioner, provider, primary care, continuing education, training, older adult, patient, toolkit
Education for Primary Care Providers on Advance Care Planning

Background

The United States Census Bureau (2020) states that, by 2034, one in five Americans will be at or beyond the age of 65. With older age comes the critical task of considering end-of-life (EOL) care wishes. In light of this upcoming age demographic shift, healthcare providers must strengthen their knowledge of EOL conversations, as such dialogue produces multiple benefits for patients and their families. This type of conversation between provider and patient is called advance care planning (ACP). ACP is a discussion of a patient’s EOL healthcare wishes. Its purpose is to indicate these wishes clearly should the patient be unable to make their decisions known to providers and family members due to a sudden health decline or medical emergency. Anyone of any age can participate in ACP. However, it is applicable, especially to older adults, and should be prioritized as the aging population expands.

ACP offers numerous benefits. ACP discussions promote patient autonomy and dignity because patients can take ownership of their healthcare decisions and specify the medical care they do or do not want. ACP benefits extend beyond the care of patients as individuals. EOL care conversations can decrease stress and anxiety for families and loved ones, given that the patient’s care wishes will have been previously established (Kendell et al., 2020).

Moreover, ACP can decrease out-of-pocket hospital costs for patients and their families by eliminating unwanted medical interventions and lengthy hospital stays. Zhu and Enguidanos (2022) explored the relationship between advance directive (AD) completion and hospital out-of-pocket costs at the EOL. An AD is legal documentation of a patient’s healthcare decisions that arise from ACP. Zhu and Enguidanos analyzed the EOL healthcare costs of patients who died between 2000 and 2014 (N = 9228). Approximately 44% of decedents had completed an AD,
and the study determined that AD completion was associated with $673.00 lower hospital out-of-pocket costs.

**Problem Description**

Despite the positive aspects of ACP, the general population’s participation in this aspect of healthcare is minimal. Only one in three American adults has completed any form of ACP (Yadav et al., 2017). However, this is not due to the population’s lack of interest. In 2018, the Institute for Healthcare Improvement conducted a national survey that reported 92% of Americans say it is important to discuss EOL care wishes, 95% of Americans state they would be willing to talk about their wishes, and 53% say they would be relieved to have this conversation (The Conversation Project, 2018). Healthcare providers can play a significant role in addressing the population’s needs and improving ACP participation. Such providers include physicians, nurse practitioners, and physician assistants in the primary care setting, as they interact with patients at various stages of life. As patients age, it becomes necessary for providers to support their older patients throughout the aging process and address patient care even into life’s end stages. Primary care providers (PCPs) are well-positioned to provide this support and can do so by facilitating ACP in practice.

Though PCPs can be crucial in patients’ EOL care discussions, providers cite several barriers to ACP application. First, PCPs report that their limited knowledge of ACP and how to facilitate such conversations deters them from being proactive in discussing EOL care with patients (Batchelor et al., 2019; Glaudemans et al., 2019; Ke et al., 2015). Similarly, PCPs admit to believing the “myth” that discussing ACP with patients may take away hope or be detrimental to the patient-provider relationship, as many people associate ACP with imminent death and dying (Glaudemans et al., 2019; Izumi, 2017). Providers add that it is unclear, at times, which
healthcare specialty should be responsible for having EOL conversations with patients (Izumi, 2017). Providers question if the task is upon the PCP, the hospitalist, palliative care, a chronic illness specialist, social work, or nursing. Finally, lack of time during appointments poses another barrier to providers incorporating thoughtful ACP discussions into patient care (Howard et al., 2018).

Setting

This DNP project occurred in a community primary care clinic in Midtown Sacramento, California. The clinic is a Federally Qualified Health Center that sees approximately 250 patients daily. Most of these patients are Medi-Cal recipients, while others have Medicare plans or are uninsured. The clinic values empowering individuals to take ownership of their health. Similarly, ACP allows patients to take ownership of their healthcare decisions by specifying the EOL medical care they do or do not want. This DNP project that promotes provider use of ACP with older adult patients aligns with the clinic’s value of patient autonomy.

Specific Aim

This project aimed to develop, implement, and evaluate an educational session for primary care providers on ACP for older adult patients. The project intended to enhance provider knowledge about ACP, increase provider confidence in assisting patients through EOL care discussions, and determine the likelihood of practice change.

Available Knowledge

PICOT Question

How will a single educational session on ACP affect provider knowledge of and confidence in facilitating ACP compared to no education, as measured immediately after the intervention with an online survey?
Search Methodology

A comprehensive search was conducted on literature regarding barriers to ACP use in the clinical setting and further education for providers on ACP to increase its implementation. The search used several databases, including CINAHL Complete, PubMed, and Scopus. Using CINAHL Complete, the keywords and Boolean operators were searched: advance care plan* OR end of life; nurse practitioner OR provider; educat* OR train*; primary care; the search yielded 181 results. The Scopus search used the terms advance care planning AND nurse practitioner AND training; 28 articles were returned. The following terms were searched when utilizing the PubMed database: advance care planning OR palliative AND nurse practitioner AND training AND primary care, with five articles returned.

Various limits were applied to narrow the search. The information included in the search was limited to articles written within the past ten years (2011-2021), information involving the adult population, research articles, peer-reviewed articles, academic journals, clinical trials, meta-analyses, practice guidelines, randomized controlled trials, and systematic reviews. Also accepted for review were international research studies, information relating to a specific type of clinical setting or diagnosis, and articles referring to providers as physicians or doctors, as opposed to strictly nurse practitioners. Studies excluded from the review contained information primarily about patient education on ACP or focused on the pediatric population. Following applying the limits and the criteria for either inclusion or exclusion, the search yielded 27 results.

After the abstracts of the 27 articles were examined, ten studies were selected for a more thorough analysis. A critical appraisal of the evidence was conducted using The Johns Hopkins Research and Non-Research Nursing Evidence-Based Practice (JHNEP) appraisal tools. The
tools helped determine the strength and quality of the evidence in the ten studies that were ultimately selected for the literature review (Dang & Dearholt, 2022) (see Appendix A).

**Integrated Review of the Literature**

Three specific themes arose during the literature review. Three studies’ findings suggested that primary care providers are well-suited to implement ACP. Several other studies’ evidence illustrated that limited provider knowledge of ACP hinders EOL conversations in practice. The remaining studies supported the idea that further education for providers on ACP could increase their knowledge and confidence in incorporating ACP into practice. The literature review indicates that provider education on ACP is necessary and can contribute to positive patient outcomes.

**ACP in the Primary Care Setting**

Three articles explored the appropriateness of ACP implementation in the primary care setting. Initial findings suggested patients value having thorough, focused EOL discussions with a familiar primary care provider or nurse in the outpatient clinic setting. For example, Kendell et al. (2020) interviewed older patients with declining physical health to determine their feelings about early ACP implementation in a Canadian primary care setting (n = 11). Patients supported the idea of initiating ACP in this setting, as it gave them time to consider plans for the remainder of their lives. Patients also wanted face-to-face outpatient provider appointments dedicated to EOL care planning.

Similarly, Miller et al. (2019) examined patient perspectives of engaging in a structured ACP conversation with general practice nurses (GPNs) in several primary care clinics in Sydney, Australia (n = 13). Researchers felt that the GPNs were uniquely positioned to implement EOL discussions given their knowledge of various disease processes, caring, compassionate natures,
and enthusiasm to participate in ACP with patients. In light of these assets, researchers focused part of the study on training the nurses to initiate structured EOL discussions in practice. After the nurse training, patients reported that the ACP conversations led by the GPNs were a positive experience, especially if there was an existing therapeutic relationship between patient and nurse.

Aoki et al. (2017) also explored primary care and ACP by conducting a cross-sectional study in 28 Japanese primary care clinics \((n = 535)\). Researchers assessed the relationship between patient experience of primary care and the occurrence of ACP conversations or official documentation. Initially, the study evaluated patient satisfaction with various aspects of their primary care clinics using a Likert-scale questionnaire called the Japanese version of the Primary Care Assessment Tool (JPCAT). Following this, Aoki et al. asked patients to report whether their provider had ever initiated an ACP conversation or documentation. Study results found that positive patient experiences of primary care were strongly associated with the occurrence of ACP conversations between patient and provider \([\text{odds ratio (OR) per 1 SD increase} = 4.33; 95\% \text{ confidence interval (CI),} 2.53–7.47]\). On the other hand, there was no significant relationship between patient experience of primary care and official ACP documentation \((\text{OR per 1 SD increase} = 1.42; 95\% \text{ CI,} 0.94–2.12)\). Overall, the study’s findings support that primary care providers can positively integrate ACP into outpatient visits.

**Facilitators of and Barriers to ACP**

Several reviewed articles sought to identify common facilitators and barriers to ACP in the clinical setting. For example, Batchelor et al. (2019) conducted a systematic review that revealed major themes that could help or hinder ACP discussions, as reported by nurses, doctors, patients, and families in Australian aged care settings. Knowledge and education, as well as skills and training, comprised two of the categories. Clinicians and patients alike reported that
the level of provider knowledge and skills around ACP could either encourage or impede EOL conversations. As a result, researchers concluded that providing further ACP education and training for providers could support the implementation of EOL discussions with older adult patients.

Glaudemans et al. (2019) uncovered similar themes when they explored how Dutch primary care professionals experienced in EOL care overcame the identified barriers associated with the ACP aspect of practice \((n = 14)\). Fourteen providers participated in the study, and all reported having experienced barriers to implementing ACP with their older patients. Researchers discovered that providers noted their limited ACP knowledge and skills as barriers to incorporating EOL discussions into practice. Participants shared that to address their knowledge gap, they pursued continuing education on ACP and even taught their peers to solidify their own knowledge and skills.

Howard et al. (2018) also explored various barriers to and enablers of ACP according to primary care healthcare providers in Canada; the study produced varied results. In this cross-sectional study, researchers invited 255 healthcare providers in the primary care setting to complete an electronic survey about perceived self-knowledge of and barriers to ACP implementation in practice. Of the 181 providers that responded, 117 were family physicians, and 64 were described as other health professionals. The latter group of providers consisted of nurses with varying levels of education, social workers, physician assistants, and psychologists.

Contrary to the findings of other studies, the survey results did not cite limited provider knowledge as a significant hindrance to ACP. Providers expressed in this study’s survey that insufficient time during scheduled appointments was the primary barrier to ACP implementation in practice. Additionally, most providers reported having an average amount of knowledge
regarding ACP. Nevertheless, in the open-ended survey questions addressing ACP enablers, providers indicated that learning ACP skills is a high priority.

**Education to Increase Provider Knowledge of ACP**

The remaining studies suggest that educating providers on ACP will help increase their knowledge and confidence in conducting EOL discussions in practice. For instance, Izumi et al. (2019) studied how an educational intervention on ACP would impact nurse's knowledge of and confidence in initiating ACP conversations in a bone marrow transplantation unit in Oregon (n = 60). This quality improvement project also assessed for any nurse practice changes over 18 months following the educational session. Pre- and post-intervention survey scores noted a significant increase in nurse knowledge and confidence regarding ACP implementation after the educational session (p < 0.001). Nurse practice changes surrounding ACP also occurred after the session. Study participants reported initiating EOL conversations more often with their patients, though this finding was not statistically significant.

Burgunder-Zdravkovski et al. (2020) also studied the effects of an educational intervention for providers. Researchers sought to improve EOL care conversations between patients and healthcare providers by providing several inpatient and home health nurses with an educational session about communication skills and techniques and practical and actionable EOL information in the form of an “ACP Toolkit” (n = 18). Using pre- and post-intervention surveys, study results showed that the educational session significantly increased the nurses’ confidence levels in initiating ACP conversations with patients and families (Z = −2.101, P = .036).

Colville et al. (2012) took a qualitative approach to determine the outcomes of an ACP study day intervention on the practices of six nurses in the community (n = 3) and hospital settings (n = 3). Post-intervention interviews with participants reflected nurses’ reports of
increased knowledge and confidence around ACP. Nurses expressed that, in particular, the communication techniques discussed in the study day positively impacted their own clinical ACP practices.

Finally, Evans et al. (2021) sought to evaluate the effectiveness of a three-year pilot project involving palliative care education for providers at four Ontario primary care clinics. Researchers described palliative care as a treatment approach to alleviate suffering and increase the quality of life for patients experiencing significant, life-limiting illnesses. ACP conversations and documentation are often an aspect of palliative care. Participating providers attended a two-day educational workshop on current best palliative care practices. Providers also completed a 20-question pre- and post-workshop questionnaire to measure their own knowledge of and confidence in delivering palliative care. Questionnaire results showed a significant increase in provider confidence in implementing palliative care, specifically initiating ACP discussions with patients (30% mean increase, \( P < .05 \)).

**Discussion**

The literature review revealed three main themes. First, Kendell et al. (2020), Miller et al. (2019), and Aoki et al. (2017) spoke to the appropriateness of ACP in the primary care setting. Kendell et al. (2020) found that patients appreciate ACP discussion in primary care because it allows time for thoughtful consideration of their life goals and EOL care wishes. The findings of Miller et al. (2019) also point to the benefits of having ACP conversations in primary care. Patients in this study reported that having EOL care discussions with primary care nurses was a favorable experience. Patients said that previously established rapport between patient and nurse enhanced the ACP experience. Lastly, Aoki et al. (2017) found a positive association
between patient satisfaction levels and the occurrence of EOL care conversations with a PCP, suggesting that patients value ACP in the primary care setting.

The literature also discussed facilitators and barriers to ACP. Batchelor et al. (2019) showed that patients and medical clinicians (e.g., nurses and doctors) support providers having strong knowledge and skills around ACP, as this competence can be an asset in EOL care conversations. Moreover, patients and clinicians hold that a provider’s limited ACP skill set could threaten EOL care discussions. Consequently, the researchers recommended continued ACP training for providers to strengthen this aspect of primary care practice. In Glaudemans et al. (2019), providers well-versed in EOL care shared how their initial lack of experience with ACP posed a barrier to such discussions in practice. Providers overcame this barrier by seeking further ACP education and instructing their peers to hone their skills.

On the other hand, Howard et al. (2018) shared differing results. The physicians who responded to this study’s survey on the facilitators and barriers to EOL discussions did not indicate limited physician knowledge as an impediment to ACP. Instead, the participating physicians reported a lack of time during patient appointments as the most significant barrier to implementing ACP. However, in the open-ended question portion of the survey, the physicians still mentioned the importance of having adequate ACP skills.

Lastly, the literature review showed the connection between ACP education for providers and its potential to increase provider knowledge and confidence in having EOL care conversations with patients. For example, Izumi et al. (2019) found a significant increase in nurse-reported knowledge and confidence around ACP in a post-intervention survey following an educational session about having EOL care discussions with patients. Researchers also noted that some nurses incorporated EOL conversations into patient care more often within the three
months following the educational intervention, though this was a small finding. This study illustrates that ACP education can expand provider knowledge and elicit practice change. Burgunder-Zdravkovski et al. (2020) uncovered similar findings when they provided home health nurses with EOL care education through a practical, actionable “ACP Toolkit.” As in Izumi et al. (2019), this study’s pre- and post-intervention questionnaires indicated a significant increase in nurse confidence levels around facilitating ACP discussions with patients. Colville et al. (2012) used qualitative research with pre- and post-intervention interviews to show how an ACP study day increased the participating nurses’ self-reported knowledge and confidence. Furthermore, the nurses shared that the study day section on communication techniques was especially helpful in enhancing EOL care conversations with their patients. Finally, Evans et al. (2021) used an educational session format for providers in primary care accompanied by pre- and post-intervention surveys to determine that PCPs felt more confident following the session in initiating ACP discussions with patients.

Rationale

Educating healthcare providers can be guided by Jack Mezirow’s transformative learning theory. Mezirow (1994) holds that an important part of adult development and education is a person’s reflection on their own experiences accompanied by the progressive expansion of their worldview. According to Mezirow (1997), a person’s associations, concepts, values, feelings, and conditioned responses unite to form mindsets or frames of reference. A person’s frame of reference is a foundation of assumptions that adds meaning to the person’s experiences. Mezirow (1994) poses that though people often resist learning anything that does not align with their personal foundations, learning can still occur by transforming frames of reference. Such transformation can occur when a person reflects on their foundation of assumptions, examining
the nature of its existence and how it came to be. Reflection is triggered when people realize that their unexplored assumptions and beliefs are useless and that other, more effective ideas exist. Mezirow (1994) refers to this moment as a “disorienting dilemma” and posits that it can be a starting point for a person to broaden their frame of reference.

As PCPs gain more knowledge of ACP, the educational experience may reveal varying views. Some providers’ views may stray from evidenced-based ACP practices for patients due to perceived barriers to care. Bringing new ideas and supporting evidence to light may produce a disorienting dilemma for some, as they realize their assumptions about EOL care planning may hinder best practices. Though providers may experience initial resistance to new information, ideally, they will transform their knowledge and beliefs about EOL care planning. They will begin to integrate this new knowledge into practice.

Methods

Context

More attention should be paid to ACP in this community primary care clinic, which needs a comprehensive policy or procedure related to ACP. Front desk staff must give every new patient, ages 18 and above, a standardized advance health care directive form. Like ACP, an AD allows patients to indicate to their family, loved ones, and healthcare providers the type of medical care they want should they become too sick to speak for themselves (The Regents of the University of California, 2016). An AD differs from ACP because it is a legal document, whereas ACP is a process and an open-ended discussion. Also, an AD allows a patient to designate a medical decision maker; the designee is a family member or loved one who can make healthcare decisions if the patient cannot voice their wishes due to a medical emergency or
decline. An AD must be signed by the patient and a witness, typically with the witness being a notary. Often, an AD is an aspect of ACP.

The clinic’s procedure is for front desk staff to give each new adult patient a blank AD at check-in for the new patient appointment. The AD accompanies several other intake forms, such as treatment consent and privacy practices. Patients are asked to sign that they have received these forms, including the AD. If a patient completes an AD, the patient must bring the paperwork to the clinic’s medical records department to be scanned into the electronic health record (EHR). However, for several reasons, the ACP process ends for many clinic patients before they even reach the exam room.

First, the blank AD should be prioritized when mixed in with the other paperwork. The front desk staff members are not trained medical professionals and only sometimes know ADs correctly. As a result, patients need to receive information about what ADs are and their importance in healthcare. Additionally, it is challenging for front desk staff to explain ADs tactfully across a protective plexiglass window. ACP can be a sensitive topic, and the front desk is an undesirable location for such conversations.

Patient perceptions of ADs pose a barrier to the ACP process as well. Often, patients misunderstand the purpose of an AD – especially younger patients. They associate this document with death and dying and feel they are not yet at a place where an AD is applicable.

Limited time during appointments is another obstacle to thoughtful ACP and education on ADs. A standard office or telehealth visit is scheduled for 20 minutes, allowing the patient and provider to discuss at least one to two topics adequately. Since patients typically schedule appointments for acute concerns, there is rarely an opportunity to address EOL care plans in the
same appointment. Ideally, providers would encourage patients to schedule a PCP appointment dedicated to ACP.

This organization must approach the identified barriers to patient participation in ACP. To do this, the organization can start by promoting education for PCPs on ACP. With more knowledge of the ACP process, its importance in primary care, and its associated barriers, PCPs can better incorporate these EOL conversations into practice. By launching the trend of prioritizing ACP with their older adult patients, the clinic’s PCPs can foster a culture where ACP is standard practice.

**Interventions**

The educational session on ACP was presented to the clinic’s PCPs on Wednesday, February 28, 2023. On the last Wednesday of each month from 1:00 p.m. to 2:00 p.m., clinic leadership offers an optional Wellness Meeting to all providers, either virtually or in person. The medical directors allowed time for the ACP presentation during this meeting and sent an email to all clinic providers one week in advance to invite them to the presentation. A Teams link was provided in the email.

The presentation was conducted on Teams, using the “share screen” feature to display a PowerPoint slide deck. The session started with objectives and a definition of ACP. From there, a Survey Monkey link was typed in the Teams “chat box”, leading to a pre-session questionnaire.

These questions gathered provider demographics: professional title (physician, physician assistant, nurse practitioner) and length of time in practice under this title (less than one year, one to five years, six to ten years, eleven to fifteen years, sixteen to twenty years, over twenty years). Following this, the survey asked providers to rate their knowledge of ACP in the primary care setting. The available answers were “not at all knowledgeable,” “slightly knowledgeable,”
moderately knowledgeable,” very knowledgeable,” and “extremely knowledgeable.” Next, the survey asked providers to rate their confidence in facilitating ACP in the primary. The available answers were “not at all confident,” slightly confident,” “somewhat confident,” “very confident,” and “extremely confident.” Also included was a question asking providers to indicate who they think should be responsible for facilitating ACP with patients. Several healthcare specialties were listed (PCP, palliative care/hospice, chronic illness specialist, social work, nursing), and providers could pick multiple answers. Following this was a question asking providers when they think it best to approach EOL care discussions with patients. Similarly, several answers were provided, and there was the option to pick more than one. Another question in the pre-intervention assessment asked providers to identify perceived barriers to their own practice of ACP. Again, a list of common barriers was provided, and more than one answer could be selected. The last two questions were Likert-style and asked providers to rate their knowledge of ACP and their confidence in facilitating ACP.

The training included an overview of ACP, its benefits, and its appropriateness in primary care. Additionally, the presentation reviewed two common ACP-related documents: AD and POLST. Immediately after the session, there was time for several questions and for providers to take a post-intervention assessment that posed all the same questions as the previous survey, but without the demographic questions. The post-intervention assessment also asked providers how likely they were to change their ACP practices following the training. The project ensured the privacy of those participating in the educational session by utilizing anonymous surveys. See Appendix I for survey questions.

Gap Analysis
Current literature states that healthcare providers need more knowledge of ACP and more confidence in facilitating EOL discussions with patients. Consequently, the evidence proposes that providing ACP education to providers can increase provider knowledge of the topic and enhance provider confidence in incorporating ACP into practice. This DNP project sought to offer such education to the PCPs of the selected clinic. See Appendix B for the Gap Analysis.

**Gantt Chart**

The Gantt chart (See Appendix C) spans the time frame of the DNP program and illustrates the project’s timeline. In August 2020, the program began, and a personal interest in ACP was explored. By the end of September 2020, a problem associated with personal interest was identified. From September to December 2020, time was spent establishing the PICOT question. September 2020 also signaled the start of the official literature review, determining project goals, and designing the DNP project. These three tasks continued until August 2023 to incorporate current literature and allow revisions to the project’s goals and design. With the development of the project’s basic blueprint came the request for the clinic’s support. In July 2022, the Chief Medical Officer approved presenting the project to the clinic’s providers. See Appendix D for the Letter of Support from the Agency.

In May 2023, the project proposal and educational PowerPoint presentation were submitted to the university’s faculty for review. After receiving faculty feedback, revisions to the project and presentation were made over the following several months. Also, during these several months, updates were provided to clinic leadership to confirm project support. At the beginning of August 2023, the prospectus submission was brought to the project’s chair and second reader for final review. September to December 2023 was spent writing the manuscript. Over the course of these three months, several manuscript drafts were developed, incorporating
advise from the committee members. In December 2023, the completed manuscript was submitted to the University of San Francisco (USF) repository.

From January to February 2024, the educational PowerPoint was finalized and presented to the clinic’s providers on February 28, 2024. Data from the pre-and post-intervention surveys was gathered and analyzed in March 2024. The last part of the DNP program involved writing the project’s final report and presenting the findings to USF faculty in May 2024.

**Work Breakdown Structure**

The work breakdown structure (WBS) (See Appendix E) divided project tasks into the following phases: initiation, planning, execution, and closeout. The initiation phase began with selecting a personal interest around which to build the DNP project, this interest being ACP. Following this came the identification of a problem associated with the interest: ACP is valuable and relevant but PCP knowledge and confidence around ACP are limited. A PICOT question was established and sought to explore the effects of an ACP educational intervention on provider knowledge and confidence regarding ACP practices. A literature review was conducted and uncovered the ideas that ACP is appropriate in primary care, providers require more ACP training, and such education can improve provider knowledge and confidence around ACP. With this information, a goal emerged to design a DNP project that would educate PCPs on ACP to increase their knowledge and confidence in implementing this aspect of care.

During the planning phase, the DNP project design became more focused. It was decided that the educational presentation would define ACP, discuss its benefits and relevance given the nation’s upcoming age demographic shift, explain its role in primary care as cited by the literature, and encourage providers to incorporate ACP into patient care. A Sacramento primary care clinic became an appealing site for project implementation when it was identified that its
providers needed ACP education. The project was discussed with the agency’s leadership, who expressed their support of an ACP presentation for clinic providers. After receipt of the agency’s letter of support, the project chair and second reader were updated on the progress made and a project proposal was submitted to the university for review. This submission proposed inviting other clinic staff members to the presentation in addition to the PCPs. Such staff members included nurses, medical assistants, front desk workers, social workers, and case managers. The intention was to improve organization-wide knowledge of ACP and confidence in speaking with patients about ACP. The committee members were informed of this revision.

Following this, a formal prospectus was developed. The prospectus required several deliverables, some of which were completed earlier in the program and built upon throughout the initiation and planning phases. The deliverables included the evidence evaluation table, gap analysis, Gantt chart, work breakdown structure, communication plan matrix, SWOT analysis, and proposed budget for the project. The prospectus was given to the project chair and second reader, both of whom gave feedback and advisements. After the prospectus submission, it was determined that the project needed simplification, so the additional staff members were omitted from the project.

The next step of the planning phase was manuscript development. The manuscript pulled aspects from the prospectus and incorporated the suggestions previously made by the USF faculty. After manuscript completion, the document was submitted to the university’s repository. Around this time, a meeting was held with clinic leadership to confirm support for the project and discuss the details of the presentation. A date for the ACP presentation was scheduled during this meeting, and clinic leadership sent out a Teams invitation to all clinic providers via their work email addresses.
The execution phase involved finalizing the presentation PowerPoint slides and Survey Monkey questionnaires two weeks before project implementation. On the scheduled date, the presentation was conducted, and surveys links were sent to providers in the Teams “chat.” The audience members were thanked for their time and participation.

During the closeout phase, survey results were gathered from the Survey Monkey website and transferred to a Microsoft Excel spreadsheet for easier visualization and access. Demographics, primary outcomes, and secondary outcomes were analyzed using the Survey Monkey website and Microsoft Excel. Project findings were compiled and included in the DNP project final report for submission to the USF repository.

**Communication Plan Matrix**

The communication plan matrix (See Appendix F) divided project participants into two categories: USF DNP faculty and clinic leadership. The DNP faculty were updated regularly on the project’s status to allow sufficient time for feedback and project revisions; this communication occurred via email, Zoom, and text. Clinic leadership required less frequent communication and were contacted via email and face-to-face interactions.

**Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis**

The SWOT analysis (See Appendix G) revealed several strengths, weaknesses, opportunities, and threats related to the project. One of the project’s strengths was that the topic is relevant to the times, given the rapidly approaching age demographic change shift favoring older adults. Additionally, there is much literature on the importance of ACP in the primary care setting, as well as on the barriers to implementing ACP in this setting. Another strength of the project was that it addressed specific gaps in healthcare: limited patient utilization of ACP despite its known benefits and patient interest and insufficient provider knowledge of ACP as a
barrier to its implementation in practice. A project weakness was limited time; the short duration of the project made it difficult to determine if the educational intervention had a significant effect on providers’ ACP implementation.

The project had many growth opportunities. First, the educational intervention took place in a primary care clinic with a workplace culture of valuing continued education and supporting colleagues. Additionally, the clinic’s Chief Medical Officer (CMO) and Medical Director supported the project and provided time and resources to ensure the project’s success. There were several potential threats to the project. For instance, the CMO and Medical Director could have rescinded support if the organization’s priorities change. Also, some providers could have resisted the educational intervention if they felt ACP and EOL conversations were inappropriate for the primary care setting.

**Proposed and Final Budgets**

The proposed budget (See Appendix H) approximated the hourly wages of the clinic providers. On average, the clinic’s NPs and PAs are compensated $77 per hour, while the MDs are compensated $125 an hour. It was predicted that a mix of twelve NPs and PAs would attend the session along with thirteen MDs. If clinic leadership had allotted one hour for the educational session, the cost would be $2,540 for the participants’ time. If leadership had allowed thirty minutes for the intervention, the cost would have decreased to $1,274.50.

The final budget was lower than the proposed budget due to actual provider attendance. Approximately fourteen NPs/PAs and seven MDs attended the thirty-minute educational session. Using the same estimated hourly wages from the proposed budget, the final cost of the intervention was approximately $976.50.

**Study of the Interventions**
The upcoming age demographic shift in the United States inspired the project, favoring people over 65. As much of the nation’s population ages, the need for EOL care discussions between patients and their providers becomes increasingly more important. However, ACP participation amongst American adults is low despite ACP’s numerous benefits. Alongside this issue is the problem of primary care providers reporting insufficient knowledge and confidence around facilitating EOL care conversations with their patients. The literature suggests that education for primary care providers on ACP can increase their knowledge and confidence in ACP practices.

It was observed that this widespread knowledge gap was evident on a smaller scale amongst providers at the clinic where the DNP project occurred. Using the literature as a guide, this project sought to determine the effects of an educational intervention on PCP knowledge of ACP, confidence in facilitating EOL conversations with patients, and the likelihood of ACP practice change after the intervention. The project’s design mirrored the quality improvement projects and research studies discussed in the literature. The presentation’s audience included primary care physicians, nurse practitioners, and physician assistants. The training included an overview of ACP, its benefits, and its appropriateness in primary care. Additionally, the presentation reviewed two common ACP-related documents: AD and POLST. The project utilized pre- and post-intervention assessments to examine any changes in PCP knowledge or confidence in assisting patients through the ACP process. The post-intervention assessment also asked providers how likely they were to change their ACP practices following the training.

**Outcome Measures**

The primary outcome measures of the project were provider knowledge of ACP and confidence in implementing it in practice. The project assessed provider knowledge and
confidence around ACP before and after the educational session using five-point Likert-style scale questionnaires. The session aimed to increase ACP knowledge and confidence, as indicated by provider self-reports in the pre- and post-intervention surveys. Unfortunately, the project did not use validated tools for the surveys, so it is possible that the questions did not determine provider knowledge accurately. Using pre- and post-intervention assessments with quiz-like questions may have been more beneficial in assessing the educational session’s contribution to provider knowledge.

The project had several secondary outcome measures. The first was determining if there were any changes after the presentation around who should be responsible for facilitating ACP with patients. Because the presentation encouraged more PCP involvement in EOL care discussions, the question examined if there was any shift favoring the PCP as the one who should be responsible for implementing ACP. Similarly, the next secondary outcome measure looked at the audience’s perspectives on the best time to have ACP conversations with patients. The educational session suggested that early EOL care planning in primary care is beneficial, so the project measured any differences in the providers’ perspectives between the pre- and post-intervention surveys. The third secondary outcome measure explored provider-reported barriers to ACP implementation in practice. The presentation content provided evidence-based information on the barriers to ACP, according to providers. The survey questions pertaining to this topic assessed if the providers’ reports aligned with the evidence from the literature. Additionally, the project analyzed if the providers’ reports changed between the two surveys. Because these three measures were presented as questions where providers could select multiple answers, it was challenging to determine if the educational session had a clinically significant impact on the providers’ perspectives.
Lastly, the project measured the potential for practice change by asking how likely providers felt they were to change their ACP practices after the presentation. However, the project’s implementation phase was short, lasting only the duration of the educational session. The project did not assess for any evidence of practice change in the weeks or months following the intervention.

**Data Collection Instruments**

The project used Survey Monkey to develop the pre- and post-intervention surveys. The surveys were disseminated by sending the Survey Monkey links in the Teams meeting’s “chat” feature. Survey Monkey’s data analysis feature compiled participants’ responses and presented the results in frequencies and percentages.

**Analysis**

The raw data from Survey Monkey was transferred to Microsoft Word and put into table format. Additionally, Microsoft Excel was used to put the data into a pie chart and bar graph formats. The pre- and post-intervention survey answers were compared to determine if any differences or shifts occurred. See Appendix J for data tables, charts, and graphs.

**Ethical Considerations**

In May 2023, the USF DNP department determined that the project met the guidelines for an evidence-based change in practice project as outlined in the DNP project checklist. It was approved as a quality improvement project. There were no identifiable issues, privacy concerns, or conflicts of interests noted for this project.

*Cura Personalis*, Latin for “Care of the Person,” is a Jesuit value that aligns with the ACP process. *Cura Personalis* is a type of care and responsibility to one’s fellow person rooted in being attentive to the individualized needs of others (Georgetown University, n.d.). This care
acknowledges each person’s circumstances, concerns, gifts, and limitations to ensure every human being thrives. Similarly, the American Nurses Association’s Code of Ethics for Nurses states in the first provision: “The nurse practices with compassion and respect for the inherent dignity, worth, and unique attributes of every person” (American Nurses Association, 2015, p. v). This DNP project focused on the importance of planning one’s EOL care wishes in advance. Patients require individualized care at all stages of life, even into death. When patients establish their EOL care wishes, healthcare providers get the opportunity to provide person-centered care, honoring the patient’s dignity and autonomy.

Results

Twenty-one clinic providers attended the educational presentation on ACP. Twelve providers participated in the pre-intervention survey (n = 12), and eleven participated in the post-intervention survey (n = 11). The survey participants consisted of six NPs (50%), four physicians (33.33%), and two PAs (16.67%). Seven of the participating providers stated they have been practicing for six to ten years (58%), while the five remaining providers reported being in practice for one to five years (41.67%). The remaining results of the intervention were categorized into one of six categories based on the survey questions. The categories included “knowledge,” “confidence,” “responsibility,” “best time,” “barriers,” and “likelihood.”

Knowledge

In the pre-intervention survey, most providers indicated that they were either slightly knowledgeable (33.33%) or very knowledgeable (33.33%) about ACP in the primary care setting. The other providers reported being either not at all knowledgeable (8.33%) and moderately knowledgeable (25%). No one reported feeling extremely knowledgeable. The post-intervention survey showed a shift toward increased knowledge of ACP in the primary care
setting, with most participants (63.64%) indicating feeling moderately knowledgeable. No one reported feeling not at all knowledgeable after the educational session. The percentage of participants who felt slightly knowledgeable decreased to 9.09%. These shifts suggest that the presentation contributed to an increase in provider knowledge of ACP in primary care. However, it was noted that the percentage of participants who reported feeling very knowledgeable decreased between the pre- and post-intervention surveys (27.27%).

Confidence

The results regarding provider confidence in facilitating ACP in the primary care setting were similar to those regarding provider knowledge. Before the intervention, most providers reported feeling slightly (33.33%) and somewhat (33.33%) confident in their ACP practice skills. Twenty-five percent of providers indicated that they feel slightly confident, while 8.33% indicated feeling not at all confident. No one reported feeling extremely confident before the educational session.

The post-intervention survey showed a shift in the direction of the providers feeling more confident in their ACP practice skills. After the presentation, the percentage of providers who reported feeling slightly confident decreased to 9.09% while over half of the providers (54.55%) said they feel somewhat confident. Additionally, the percentage of providers who reported feeling very confident increased to 36.36%. No one reported feeling extremely confident. The results suggest that the intervention had a positive impact on provider confidence in implementing ACP in practice.

Responsibility

The pre- and post-intervention surveys asked the participating providers who they think should be responsible for facilitating ACP with patients. Providers had the opportunity to select
more than one answer and provide additional answers under the option labeled “other.” Before the intervention, 100% of providers reported that the PCP is responsible for facilitating EOL care conversations with patients. Additional answers were palliative care/hospice (83.33%), chronic illness specialist (66.67%), social work (91.67%), and nursing (58.33%). No one added additional answers to this question.

The post-intervention survey showed again that 100% of the providers feel that the PCP is responsible for ACP discussions. The remaining post-intervention answers revealed several changes. The percentage of providers who stated that palliative care/hospice, chronic illness specialists, and social workers held the ACP responsibility decreased to 63.64%. Similarly, slightly fewer providers (54.55%) reported nursing as the responsible party. No one added additional answers under “other.”

**Best Time**

Both surveys asked providers when they think is the best time for ACP implementation with patients. This question allowed for multiple selections and provided an option for “other” where participants could type additional answers. The pre-intervention survey showed that 66.67% of providers feel ACP is best implemented at a new patient or transfer-of-care appointment. Additionally, most of the providers indicated that ACP should happen at the time of a new diagnosis of a chronic illness (58.33%), at the time of a new diagnosis of a terminal illness (58.33%), and after multiple emergency room visits or hospitalizations for a chronic or terminal illness (58.33%). Two people typed additional answers and said ACP is best addressed “at any appointment with a provider that knows the patient well” and “at a regular appointment dedicated to ACP.”
The post-intervention survey saw increases in each answer choice. Almost all providers (90.91%) indicated that ACP is most appropriate for a new patient or transfer-of-care appointment. Similarly, the percentage of providers who selected that ACP should occur at the time of a new chronic illness diagnosis increased to 81.82%. The second survey also showed that more providers reported that ACP is best conducted at the time of a new diagnosis of a terminal illness (63.64% and after multiple emergency room visits or hospitalizations for a chronic or terminal illness (72.73%). Two people answered that the best time for ACP is “at any visit and situation” and a “designated appointment.”

**Barriers**

The pre- and post-intervention surveys asked providers to indicate barriers to implementing ACP in practice. Again, this question allowed participants to select more than one answer with an option for “other” where participants could type additional answers. The pre-intervention survey showed that 100% of the providers cited insufficient time during appointments as a barrier to ACP discussions with patients. Many providers reported limited provider knowledge (75%) and limited provider confidence in facilitating ACP (66.67%) were barriers. Less than half of the providers (41.67%) said that a barrier to EOL discussions is the idea that initiating ACP could be detrimental to the patient-provider relationship. Lastly, 8.33% of providers reported a barrier being the idea that ACP is not appropriate for the primary care setting. One provider added an answer under the “other” option: "Fears that patient may misinterpret my intentions or that patients are not ready/willing to have this conversation."

In the post-intervention survey, 100% of providers said insufficient time during appointments is a barrier to ACP implementation. Provider selection of limited provider knowledge on the topic as a barrier decreased to 63.64%. However, more providers indicated
limited provider confidence in facilitating ACP as a barrier (81.82%). Fewer providers selected the barrier that initiating ACP could be detrimental to the patient-provider relationship (18.18%). Finally, the barrier regarding the idea that ACP is inappropriate for the primary care setting increased to 18.18%. One provider stated under the “other” option that “cultural barriers” could hinder ACP implementation.

**Likelihood**

The final result provided information regarding the likelihood of provider practice change after the education session. In the post-intervention survey, most providers indicated that they are likely to change their practices around implementing ACP with their older adult patients (63.64%), and 27.7% stated that they are very likely. One provider felt neutral (9.09%).

**Discussion**

**Summary and Interpretation**

This quality improvement project sought to increase PCP knowledge and confidence around implementing ACP with patients through an educational session on ACP. Additionally, the projected gathered provider opinions around who holds the ACP responsibility, what is the best time to implement ACP, and what are barriers to facilitating ACP in practice. Lastly, the project assessed the likelihood of provider ACP practice change.

The pre-intervention survey showed that the participating providers already had baseline knowledge and confidence around ACP in the primary care setting. Two factors were identified that could have contributed to this. Most of the participating providers reported being in practice for six to ten years, compared to the remaining providers who reported practicing for one to five years. It is possible that many of the providers felt knowledgeable and confident about ACP before the session due to their years of clinical experience. Also, the providers who participated
may have had a pre-existing interest in the topic, either personal or professional. It is possible that this interest stemmed from previous ACP exposure, which may have increased some providers’ baseline ACP knowledge and confidence. Nevertheless, the post-intervention survey results demonstrated an overall shift toward increased provider knowledge and confidence in implementing ACP in primary care.

The pre- and post-intervention surveys included questions about ACP responsibility, the best time to implement ACP, and barriers to facilitating ACP in practice. The literature review uncovered these as common topics in research studies and other quality improvement projects. The first reason for including the topics in the surveys was to explore if the participating providers’ opinions aligned with those cited in the literature, specifically regarding barriers to ACP. The project results determined that the local clinic providers reported the same barriers to ACP that are discussed in the literature, with the top three being insufficient time during appointments, limited provider knowledge on the topic, and limited provider confidence in facilitating ACP.

The second reason for including these topics was to examine any change in providers’ opinions after the session. In the pre-intervention survey question about who is responsible for facilitating ACP with patients, all providers reported that the PCP is responsible. The next most selected answer was social work, followed by palliative care/hospice, chronic illness specialist, then nursing. The pre-intervention survey saw no change in the percentage of providers who selected PCP. However, fewer providers selected the remaining options, suggesting that providers’ opinions may have shifted after the educational session to the idea that the ACP responsibility primarily lies with the PCP. Still, both surveys showed that most providers
selected all answer options, possibly indicating that providers feel ACP requires interdisciplinary teamwork.

Regarding providers’ thoughts about the best time to implement ACP with patients, most providers in the pre-intervention survey reported that a new patient or transfer-of-care appointment would be the most appropriate time. Over half of the providers also felt it was appropriate to implement ACP at the time of a new diagnosis of a chronic illness, at the time of a new diagnosis of a terminal illness, and after multiple emergency room visits or hospitalizations for a chronic or terminal illness. The post-intervention survey showed similar results; however, more providers selected each answer choice after the educational session. This may indicate that the providers’ opinions shifted toward ACP implementation being appropriate at any time.

The pre- and post-intervention surveys asked providers to identify perceived barriers to ACP. Before the educational session, all providers indicated that inadequate time during patient appointments hinders ACP practices. This result did not change in the post-intervention survey, suggesting that time constraints may be a system issue. Consistent with evidence from the literature, most providers reported in the first survey that there was insufficient knowledge and confidence around ACP as barriers to its implementation with patients. Similar results were seen in the second survey, with a slight decrease in providers indicating a knowledge gap. However, it was noted that more providers selected limited ACP confidence as a perceived barrier. It is possible that after the educational session, providers felt more knowledgeable about ACP but felt they needed more experience with facilitating EOL care discussions to improve their confidence. Less than half of the providers in the pre-intervention survey reported that a barrier to ACP is that these discussions could harm the patient-provider relationship. The presentation on ACP addressed this barrier specifically, citing the evidence that states EOL care conversations can
strengthen the relationship between patient and provider. This information may have positively impacted the providers, as the post-intervention survey showed that fewer providers selected this option as a barrier to ACP.

Lastly, the post-intervention survey asked providers to report the likelihood of their own practice changes around ACP. Nearly all providers said they are likely to change their practices around implementing ACP. Only one provider reported feeling neutral about changing their practices. The neutrality may have stemmed from this provider's already strong ACP practice and feeling that a practice change was unnecessary.

The providers expressed appreciation and positive feedback in the Teams “chat” after the educational session. Several providers asked where the POLSTs are located in the clinic and requested that they be more visible and accessible across departments. Face-to-face interactions with providers days after the presentation also were positive and supportive.

**Implications for Practice**

Education for providers on ACP in primary care can increase provider knowledge and confidence around having EOL care discussions with patients and inspire practice change. However, more work could be done to ensure ACP implementation in practice. The clinic and others like it may benefit from standardized policies and procedures related to ACP. This could look like developing best practice advisory notifications in the organization’s electronic medical record system. The notifications would alert providers to incomplete ACP documentation and prompt further action. Additionally, it would be beneficial to involve other clinic staff members in the clinic’s ACP process. Front desk staff, medical assistants, and nurses all can play important roles in improving ACP implementation and completion among patients.

**Limitations**
The project had several limitations. First, the project’s pre- and post-intervention surveys were designed for providers to self-report their ACP knowledge and confidence and the likelihood of practice changes. Self-reported data can be biased or inaccurate and can skew project findings. Furthermore, though twenty-one providers attended the session, only twelve completed the pre-intervention survey and eleven completed the post-intervention survey. The small sample size decreases the generalizability of the findings. Lastly, due to the project’s short duration, it was unable to capture if the educational intervention had an effect on providers’ ACP implementation with the passage of time.

**Conclusions**

ACP discussions and documentation are known to preserve patient dignity, foster autonomy, and help prevent undesired medical treatments at the EOL. As the age demographic of the American population shifts, it becomes crucial that healthcare providers, such as those in the primary care setting, acknowledge the role they can play in supporting their patients during the aging process. Providers can effectively facilitate EOL care conversations with their older adult patients with the correct knowledge and skills. By initiating such discussions in practice, providers allow patients to clearly establish their EOL healthcare wishes, thus promoting patient dignity and autonomy. Further education can address the existing knowledge gap providers have around ACP, which can result in positive patient outcomes at any stage of a patient’s life.
References


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https://missionandministry.georgetown.edu/mission/spirit-of-georgetown/


The Regents of the University of California. (2016). *California advance health care directive.*


https://doi.org/10.1002/jhm.12839
## Appendix A: Evaluation Table

<table>
<thead>
<tr>
<th>Purpose of Article or Review</th>
<th>Design / Method / Conceptual Framework</th>
<th>Sample / Setting</th>
<th>Major Variables Studied (and their Definitions)</th>
<th>Measurement of Major Variables</th>
<th>Data Analysis</th>
<th>Study Findings</th>
<th>Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s)</th>
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<tbody>
<tr>
<td>Purpose: to identify facilitators and barriers to the implementation of ACP in aged care settings</td>
<td><strong>Design:</strong> systematic review and thematic analysis</td>
<td><strong>Sample/setting:</strong> older adults/resident's, family members, nurses, doctors at various Australian community or residential aged facilities</td>
<td><strong>Independent variable</strong> for the 2 interventional studies: ACP practices in the facilities <strong>Dependent/outcome variable</strong> for the 2 interventional studies: ACP compliance practices in facilities AFTER training intervention</td>
<td>It was noted that the included studies did not have clear outcome measurements to determine the implementation of ACP in the aged care settings</td>
<td>Deductive thematic analysis to gather major themes related to ACP facilitators and barriers. Each article read by two authors who determined themes and verified themes with a third author</td>
<td>Six themes were identified regarding facilitators and barriers to ACP in aged care settings: Knowledge and education; skills and training; procedures and resources; perception and</td>
<td>Level of evidence: III C</td>
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<tr>
<td><strong>Worth to practice:</strong> the study’s background notes low uptake of ACP in Australia despite the multiple benefits of ACP; literature review documents several identified facilitators and barriers to ACP; these must be explored in order to provide patients and families with the most beneficial, patient-centered care. <strong>Strengths:</strong> one of the few studies to investigate this topic in Australia <strong>Weaknesses:</strong> search limited to Australia may decreased generalizability; searching for articles within past 10 years</td>
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<tr>
<td>strategies utilized on electronic databases Data extracted and common themes summarized</td>
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<td></td>
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<td>culture; legislation; systems</td>
<td>may have limited the returned information; included studies were generally of low quality <strong>Feasibility:</strong> not noted <strong>Conclusions:</strong> multi-disciplinary, person-centered approach is needed to increase implementation of ACP, taking into account varying legislation across Australia <strong>Recommendations:</strong> more research is needed to determine if interventions for increasing ACP are effective; more research is needed especially on needs of minority groups that are culturally and linguistically different; more research needed in community aged care settings</td>
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Definition of abbreviations: ACP – advance care planning
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</table>
| **Purpose**: to assess the impact of a PC educational session and mentored conversations on the confidence levels of nurses in starting PC conversations with patients | **Design**: quasi-experimental  **Method**: Part 1- interactive educational session on communication skills/techniques & ACP Toolkit Part 2 – real-time mentored conversations by certified ACP nurse facilitators  **Sample**: 18 Nurses (6 acute care and 12 home care)  **Setting**: large Midwestern academic hospital’s med-surg and pulmonary units and home health agency  **Independent**: 18 Nurses (6 acute care and 12 home care)  **Dependent**: pre-/post-intervention survey scores | **Independent variable**: Nurse demographics (length of time as a nurse, highest education, presence of hospice experience)  **Outcome variable** measured by pre-/post-intervention survey scores using a 4-item survey with answer options “strongly agree,” “agree,” “neither agree or disagree,” “disagree,” | Wilcoxon matched pairs signed rank test & Cramér’s V  | Statistically significant in improvement in pre-/post-intervention survey scores, suggesting an increase in nurse comfort levels when having PC discussion with patients and families | **Level of Evidence**: II B  **Worth to Practice**: Educating providers on PC can increase patient awareness of and access to PC services. PC services can improve patient quality of life and reduce costs for the patient by eliminating any unwanted aggressive treatment interventions.  **Strengths**: results indicate that focused education on PC can improve nurse practice attitudes and behaviors on the topic  **Weaknesses**: small sample size and highly motivated participants decreased generalizability; unable to have mentored conversations with all home health nurses due to various logistics and issues | APA Reference: Burgunder-Zdravkovski, L., Guzman, Y., Creech, C., Price, D., & Filter, M. (2020). Improving palliative care conversations through targeted education and mentorship. *Journal of Hospice & Palliative Nursing*, 22(4), 319–326.  https://doi.org/10.1097/NJH.0000000000000663
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| framework: Pamela Reed's Theory of Self-transcendence | | | “strongly disagree” relating to nurse comfort levels with discussing ACP and code status; importance of multidisciplinary collaboration; initiation of ACP conversations; use of ACP to develop patient goals of care | | | unforeseen care circumstances; participant misunderstanding of mentored conversation intervention | Feasibility: not mentioned  
Conclusions: educating providers on PC can increase provider confidence in implementing PC conversations with patients  
Recommendations: not mentioned |

Definition of abbreviations: PC - Palliative care; ACP - Advance care planning; Med-surg - medical-surgical
Purpose: explore the effect of ACP education on nurse confidence in and knowledge of ACP implementation and any changes in practice; to identify barriers to ACP implementation on the unit

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<td>Article &amp; Review</td>
<td>Framework</td>
<td>BMTU</td>
<td>ACP barriers</td>
<td>Changes in knowledge</td>
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### Purpose

### Design/Method
- Quality improvement project to increase ACP conversations led by nurses; sing-group pre-/post-test design relating to 30-minute educational session on ACP; group interviews done to discuss barriers to ACP
- Pre-test before educational session

### Sample
- 60 nurses on a bone marrow transplantation unit (BMTU) in Oregon Health and Science University, an academic medical center.

### Setting
- Educational intervention conducted in one out of the three educational days that occur in the week.

### Independent
- 60 nurses on the BMTU attending the education day where the ACP educational session was held

### Dependent
- Pre-/post-test scores and identified barriers

### Independent Variables:
- (nurse demographics): gender, race, employment type, presence of own advance directive

### Outcome Variables:
- pre-/post-test scores with a Likert scale test asking about nurse confidence in knowledge about ACP and its implementation; also asking about current personal nursing practices around ACP implementation –

### IBM SPSS Statistics, version 24 used
- Descriptive statistics to summarize survey results and perceived barriers to ACP
- Wilcoxon signed rank test to compare levels of confidence and ACP practices during the time of the project

### Findings
- Interventions increased nurse confidence in and knowledge of ACP.
- Nurses noted to have discussed ACP with more patients, though not in a statistically significant manner; Barriers

### Level: V B

**Worth to practice:**
- Healthcare providers aim to give patients care that is in alignment with their values, goals, and preferences; in order to reach this goal, providers must be knowledgeable on how to have conversations with patients about their care preferences, even at the end of life

**Strengths:**
- Educational sessions found to be helpful in addressing barriers, nurse knowledge, and nurse confidence levels as they relate to ACP
- The study’s practical and actionable ACP Toolkit was found to play a positive role in ACP practice changes by
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| session, 1<sup>st</sup> post-test directly after session, 2<sup>nd</sup> post-test three months after session | year | later measured by an 18-month patient chart review identifying presence of ADs (ADs served an indicator of nurse practice change); Barriers to ACP identified in group discussion during educational intervention | Group interviews were recorded and later listened to; common themes were extracted | include lack of time, inefficient workflow, concerns about questioning providers’ understand ing of patient preference s | nurses. **Weaknesses:** the QI approach in a single unit limits generalizability; the sample size was small and there was neither a control group nor randomization; results may have been skewed by the fact that the unit’s nurse manager participated in the project – some staff may have not participated due to discomfort around voicing opinions about ACP with management present. **Feasibility:** not mentioned **Conclusion:** practical and actionable education is needed to address the barriers, knowledge gap, and limited confidence nurses have regarding ACP **Recommendation:** It would be beneficial to look at how EHR systems can support nurses in documenting their
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<td>ACP practice as a way of promoting practice change</td>
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Definition of abbreviations: ACP – advance care planning; BMTU – bone marrow transplantation unit; AD – advance directives; EHR – electronic health record
### Purpose:
Explore patient perspectives of engaging in an ACP intervention in a general practice setting after the GPNs had received training on initiating and leading the intervention in practice.

### Design:
Qualitative Method: GPNs were trained on initiating and leading an ACP intervention with patients; semi-structured interviews were conducted with patients after ACP intervention; 6 major themes were identified from.

### Setting:
Four general practice clinics in eastern Sydney, Australia, from which 5 GPNs voluntarily took the ACP intervention training. Sample: 20 patients received the ACP intervention; 13 patients participated in the interview after the ACP Intervention on which GPNs were trained: 3-page referral document with patient.

### General practice clinics:
In eastern Sydney, computerized, 3-8 clinic providers, serves high number of older adults, GPN present willing to lead ACP, no previous history of having used a systematic approach to ACP.

### Patients:
Age, gender, primary language spoken, relationship status, common principal diagnosis length of time as patient of GP, frequency of visitation to GP in 12-month span.

### ACP Intervention on which GPNs were trained:
6 major themes emerged: working through ideas, therapeutically, relationships with nurses, significance of making wishes known, protecting family from burden, autonomy in.

### Patient demographic:
Patient demographic stated in initial GP referral analyzed with descriptive statistics.

### Interviews:
Interviews were recorded and transcribed. Transcripts imported into NVivo (QSR International, Version 10).

### Inductive thematic analysis:
6 major themes:

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### APA Reference:
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<th>Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s)</th>
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</table>
| interview transcripts       | intervention                           | background information from GP to GPN who then initiated ACP conversation with patients (and any present family/substitute decision makers/caregivers) using ACP workbook and ACD template to guide discussion; GPNs referred patients back to GP for any review or signing of ACD forms | imported into data analysis software to extract 6 common themes | done by coders to extract common themes and concepts until thematic saturation occurred | decision-making, and challenges of family communication. Overall, patients felt the ACP discussion with GPNs were helpful | not all patients who received intervention participated in interview | Feasibility: not mentioned
Conclusions: GPNs can initiate structured ACP conversations with proper training; this can greatly benefit patient care.
Recommendations: More research on a larger scale is recommended
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<td>experiences with ACP, perspectives on intervention and on GPNs performance, thoughts on how the intervention impacted their families in any way</td>
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Definition of abbreviations: GPN – general practice nurse; ACP – advance care planning; GP – general practitioner; ACD – advance care directive
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<td><strong>Measurement of Major Variables</strong></td>
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<td><strong>Study Findings</strong></td>
<td><strong>Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s)</strong></td>
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</table>

To explore how Dutch primary care professionals experienced in ACP with older patients overcome the identified barriers associated with the ACP aspect of practice

<p>| Participant demographics: profession, age, sex, patient population characteristics as estimated by respondents. | Voiced recorder was used to record interviews, which were then later transcribed verbatim. | MAXQDA software used to thematically analyze the transcripts. Open coding and inductive analysis used to determine various ACP approaches, the barriers, and how to overcome the barriers. | The study identified several barriers to healthcare providers discussing advance care planning (ACP) with their older patients, one being the providers’ lack of adequate knowledge on the level of evidence: Level III, B Good quality | <strong>Worth to practice:</strong> few older adults benefit from ACP due to provider barriers to implementing ACP in practice; it is important to address and overcome these barriers to offer the best ACP care to patients <strong>Strengths:</strong> first study to give an overview of how various healthcare professionals experience and overcome barriers to implementing ACP; respondents had much experience with the matter <strong>Weaknesses:</strong> small sample size; experienced providers may not share same identified barriers to ACP as less... |</p>
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<th>Major Variables Studied (and their Definitions)</th>
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<th>Study Findings</th>
<th>Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s)</th>
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<tr>
<td>who were known to regularly practice ACP with older adults. Other participants were eliminated due to lack of response/interest in the project or if researchers did not feel that were experienced enough.</td>
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<td>experienced providers; possible risk of preconceptions and bias since interviewers were also providers. Feasibility: nothing explicitly noted Conclusions: ACP should be promoted in a safe way; care providers should gain ACP knowledge and skills and improve beliefs and attitudes around ACP; a more efficient way to deliver ACP should be developed. Recommendations: future research on patient/family views on overcome barriers to ACP; development and testing of interventions that support patients/families in ACP.</td>
</tr>
</tbody>
</table>

Definition of abbreviations: ACP – advance care planning
### Purpose of Article or Review | Design / Method / Conceptual Framework | Sample / Setting | Major Variables Studied (and their Definitions) | Measurement of Major Variables | Data Analysis | Study Findings | Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s)  
---|---|---|---|---|---|---|---
To identify barriers to NPs implementation of ACP and define the role of NPs in the ACP process through the development of Nurse Practitioner Advance Care Planning Competencies | Modified Delphi approach – several (3) rounds of anonymous participant feedback to reach an expert consensus on what should be NP competencies re: ACP; participation guided by questionnaires | Purposive sample of 29 NPs across Ontario; taken from an original sample of 102 NPs across Ontario that had responded to a survey from another study; 15 NPs participated in the final round of the Delphi approach | Round 1: 4 competencies identified from a survey from a previous study Round 2: 29 NPs rated relevance of these competencies to NP practice Round 3: 15 NPs edited and finalized the list of 4 competencies | In round 2, 29 NPs rated relevance of each component of the 4 previously identified competencies on a scale of 1-7. 1 = low, 7 = high | Researchers gave each component a total score based on how each of the NPs score the components. Lowest possible score was 29 if every nurse rated the competency a “1” (1 x 29) and highest score possible was if every nurse rated the | Final draft of competencies: possessing knowledge of the logistics of ACP, including how and when to implement it with patients, having ability to consult and collaborate with the patient and other | Level of evidence: Level V expert opinion  
**Worth to practice:** NPs are well-positioned to implement ACP with patients given their advanced education, authority, and advocacy for patients; still, NP involvement in ACP is limited  
**Strengths:** none explicitly noted  
**Weaknesses:** loss of 51.7% of respondents between rounds 2 and 3 may limit generalizability of the recommendations to other NPs  
**Feasibility:** nothing explicitly noted  
**Conclusions:** the competencies can be used by NPs as a clear guide to identify their role in ACP

**APA Reference:**
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<th>Purpose of Article or Review</th>
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<tbody>
<tr>
<td>competency a “7” (7 x 29) Score, 5,6,7 = high relevance 4 or less = low to intermediate relevance; Actual scores ranged from 108-132 which translated to percentages of 53% - 65%</td>
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<td>implementation with patients; make ACP a more widespread practice across various healthcare settings <strong>Recommendations:</strong> to look at the extent to which these competencies are discussed in NP school and if competencies should shift based on clinical setting; also look at overlap between NP roles and roles of other disciplines to encourage a multidisciplinary approach to ACP care</td>
</tr>
</tbody>
</table>

**Definition of abbreviations:** NP – nurse practitioner
<table>
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<tr>
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<th>Design / Method / Conceptual Framework</th>
<th>Sample / Setting</th>
<th>Major Variables Studied (and their Definitions)</th>
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<tbody>
<tr>
<td>To improve the capacity for ACP in primary healthcare settings</td>
<td>Development of a computerized algorithm to help PCPs identify patients with declining health or at risk for death; Qualitative interviews with stakeholders (patients and families) re: views of this development and challenges/preferences around ACP</td>
<td>14 Patients of PCPs in Nova Scotia and Ontario 65+ years of age with declining health and the 11 self-identified caregivers of these types of patients Participants recruited from clinics, senior housing complexes, senior living centers, and the community</td>
<td>Participant interviews</td>
<td>Audio recorded interviews that were later transcribed verbatim</td>
<td>Coding of transcripts and identification of themes Identified specific quotes that illustrated key concepts and ideas</td>
<td>Participant s liked the identification of a declining health condition as an indication for a need for ACP. Felt it provided an opportunity to make independent health decisions related to future care. They liked early</td>
<td></td>
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APA Reference: 

**Level of evidence:** Level III of B Good quality  
**Worth to practice:** The care patients receive at EOL do not always align with their actual wishes and ACP can ensure that EOL care and wishes are aligned; limited use of ACP by patients due to providers being unable to identify need for ACP and patients’ hesitation to initiate ACP convos with providers  
**Strengths:** no strengths explicitly noted in study  
**Weaknesses:** Small sample size limits generalizability; not all participants were familiar with ACP so researchers’ definition of ACP could have influenced findings  
**Feasibility:** nothing explicitly
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<td>ACP in the primary care setting so they could consider plans for the remainder of their lives.</td>
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<td>Varying participant preference around ACP with most saying they would prefer face-to-face convos with</td>
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<td>noted Conclusions: patients and families value a personalized, patient-centered approach to ACP and feel providers should have adequate time for these convos. Recommendations: providers should be allowed and compensated for longer appointments for ACP convos with patients; referrals to relevant community resources as part of the ACP process are important.</td>
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<td>PCPs; Participants noted perceived barrier of clinicians lacking sufficient time for these convos</td>
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Definition of abbreviations: ACP – advance care planning PCP – primary care physicians EOL – end of life
|----------------------------|--------------------------------------|----------------|------------------------------------------------|-------------------------------|---------------|---------------|-------------------------------------------------------------|
| To explore participants’ experiences of implementing ACP discussions in practice after an ACP study day. | Qualitative, semi-structured individual interviews with participants | 16 nurses of various types and from various workplaces (generalist/specialists; hospitals/community) who had attended an ACP study day | Participant interviews | Interviews that lasted 20-60 minutes; recorded digitally; interviewers kept a diary for reflections on the interview process → this information was transcribed verbatim. | Interviews analyzed themes. Interviewers also described, explained, and transformed the data to form new ideas around ACP | 3 major ideas/themes emerged. First, “Bringing it all together” – ACP study day increased nurse confidence around ACP and increased nurse awareness/validated knowledge around ACP, especially around | **Level of Evidence:** Level III of B Good quality  
**Worth to practice:**  
**Strengths:** nothing explicitly noted  
**Weaknesses:** small sample size; also, participants volunteered and may have had previous exposure to ACP information aside from study day that could influence interviews.  
**Feasibility:** nothing explicitly noted  
**Conclusions:** education on ACP validated and expanded participants’ clinical practices  
**Recommendations:** acute care nurses and other team members need to communicate to ensure that patient care wishes are known; providers must acknowledge that ACP can be |
<table>
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<td>communication techniques ➔ positive impact on clinical practice emotional ➔ EOL discussions must be well-timed and appropriately communicated</td>
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<tr>
<td>To investigate the relationship between patient experience of primary care and ACP</td>
<td>Cross-sectional; Assessed experience of primary care with JPCAT and its relation to ACP discussion and AD</td>
<td>Japan October 2015 to February 2016; 28 primary care clinics in Japan; 535 primary care patients who visited one of the clinics within a week of survey administration; 20+ years of age; regularly attended the clinic for usual care (USC)</td>
<td>Patient experience of primary care – JPCAT ACP – “process of discussion with health care providers on future health care, particularly in the event that the patient is unable to make his or her own decisions” AD – states treatment decisions should patient be unable to express them</td>
<td>Descriptive statistics: participant characteristics &amp; patient experience of primary care – JPCAT (self-administered Likert scale questionnaire) ACP measured on a binary, ‘yes’ or ‘no’ scale of have you had ACP conversations with your provider AD measured by written documents and on</td>
<td>“Generalized linear mixed model (GLMM) with a logit link function that includes a random effect for clinic and individual covariates as fixed effects” to assess relationship between JPCAT and ACP/AD.</td>
<td>Better patient experience in primary care was associated with ACP discussion but not significantly associated with completion of AD</td>
<td>Level of Evidence: IIIB Worth to practice: ACP has positive impact on EOL care fo patients Strengths: first study to connect patient experience of primary care and ACP Weaknesses: low response rate; unable to determine depth of ACP conversations between patient and provider; cross-sectional nature of study so relationship between ACP and patient experience cannot be definitely determined; did not adjust for clustering within physicians; these primary clinics had interest in research and education so this may have limited generalizability. Feasibility: not specifically mentioned</td>
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<td>a binary, ‘yes’ or ‘no’ scale of have you written AD</td>
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<td>Conclusions: positive patient experiences in primary care can play a role in quality end of life care. Recommendations: primary care providers need to support their patients in ACP documentation.</td>
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Definition of abbreviations: ACP – advance care planning, JPCAT – Japanese version of Primary Care Assessment Tool; AD – advance directives; USC – usual source of care; EOL – end of life
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<tr>
<td>What are barriers and enablers of ACP according to providers in primary care</td>
<td>Cross-sectional study with self-administered survey received via email Survey based on another larger study researchers were doing on ACP; providers asked to rate importance of 31 barriers to conducting ACP with general population of patients 50+ years of age</td>
<td>Health care professionals in primary care in Canada November 2014 to June 2015 Physicians and other health care professionals (RN, NP, RPN, SW, other such as PA or psychologist)</td>
<td>Descriptive statistics of participant demographics and practice characteristics Respondent ratings of 31 barriers addressed on survey Qualitative responses of enablers of ACP</td>
<td>Survey done on a 0-6 Likert scale regarding importance of 31 barriers to ACP Qualitative responses of enablers of ACP via open-ended survey question</td>
<td>Survey: Categorical variables described as counts. Percentages and continuous variables described as means and standard deviations Qualitative responses: thematic analysis</td>
<td>Survey results shared top 3 barriers to ACP as indicated by physicians and other health care professionals. Lack of knowledge was not in top three and most participant rated their ACP skills as average. However, most</td>
<td>Level of Evidence: IIIA Worth to Practice: ACP produces positive patient outcomes and primary care providers might be well-positioned to integrate ACP into practice Strengths: variety of family practice primary care provider types included from 3 provinces and were team-based and non-team-based; survey instrument used from previous study proved to have validity and sensibility Weaknesses: participants volunteered and may have different views that those who did not elect to participate Feasibility: not specifically noted Conclusion: need to develop strategies at multiple levels to integrate ACP into practice to...</td>
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<td>in past 9 months.</td>
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<td>participant\ns felt learning ACP skills was a high priority and in the thematic analysis of qualitative responses, the importance of training and education emerged as themes per the participants achieve best patient outcomes. <strong>Recommendation:</strong> not specifically noted</td>
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Definition of abbreviations: ACP – advance care plan(ning)
<table>
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<tr>
<td>To look at the effectiveness of an intervention made to prepare providers for palliative care delivery</td>
<td>INTEGRATE project – provider education about palliative care and care model to promote early identification of palliative care needs</td>
<td>4 primary care clinics in Ontario with every provider being invited to participate in project</td>
<td>Intervention - INTEGRATE project of palliative care education (2-day LEAP course) and then a program to facilitate early identification of patients with palliative care needs and linkages to services</td>
<td>LEAP course – course about current practices of caring for patients with life-limiting illnesses</td>
<td>Chi squared test for comparing pre and post intervention surveys</td>
<td>Increased provider confidence in delivering palliative care, increase in self-provided use of palliative care tools and services</td>
<td>Level of Evidence: IIA Worth to Practice: Many Canadians only receive palliative care in the last month of life and providing this care in primary care can let patients experience its benefits. But PCPs need more education on palliative care and associated services/resources Strengths: not specifically noted Weaknesses: inclusion of self-reported data; unable to create matched-pairs for pre and post intervention survey responses for each individual; focus was only on provider outcomes and not on patient quality of life or health outcomes Feasibility: not specifically</td>
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| Purpose of Article or Review | Design / Method / Conceptual Framework | Sample / Setting | Major Variables Studied (and their Definitions) | Measurement of Major Variables | Data Analysis | Study Findings | Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) |

semi-structured interviews | | | | | | | noted

**Conclusion:** a standardized program for early identification of patients who need palliative care support is feasible in primary care settings if training and education is provided

**Recommendation:** more research is needed around practice factors that affect palliative care interventions; also explore patient outcomes
Appendix B: Gap Analysis

<table>
<thead>
<tr>
<th>Area Under Consideration</th>
<th>Investigating the effects of an educational intervention on:</th>
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<tbody>
<tr>
<td></td>
<td>1. PCP knowledge of ACP</td>
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<td>2. PCP confidence in facilitating ACP with older adult patients</td>
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<tr>
<td></td>
<td>3. Likelihood of practice change</td>
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<thead>
<tr>
<th>Desired State</th>
<th>Current State</th>
<th>Action Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Increased PCP knowledge of ACP</td>
<td>1. Limited PCP knowledge of ACP</td>
<td>1. Develop and lead the educational intervention</td>
</tr>
<tr>
<td>2. Increased PCP confidence in facilitating ACP with older adult patients</td>
<td>2. Insufficient PCP confidence in facilitating the process of ACP with older adult patients</td>
<td>2. Administer pre- and post-assessments on staff ACP knowledge and confidence and likelihood of practice change</td>
</tr>
</tbody>
</table>
Appendix C: Gantt Chart

1 Education for Primary Care Providers on Advance Care Planning

2020 2021 2022 2023 2024

1.1 Initiation
1.1.1 Personal interest
1.1.2 Problem
1.1.3 PICOT
1.1.4 Literature review
1.1.5 Project goals
1.1.6 Basic project design

1.2 Planning
1.2.1 Improved design
1.2.2 Agency's support
1.2.3 Project proposal
1.2.4 Project revisions
1.2.5 Prospectus
1.2.6 Project revisions
1.2.7 Manuscript
1.2.8 Repository submission
1.2.9 Agency meeting

1.3 Execution
1.3.1 PowerPoint
1.3.2 Surveys
1.3.3 Presentation
1.3.4 Thank yous

1.4 Closeout
1.4.1 Gather results
1.4.2 Transfer to Excel
1.4.3 Analyze results
1.4.4 DNP project report
1.4.5 Repository submission
Appendix D: Agency Letter of Support

July 14, 2022

To Whom It May Concern:

This is a letter of support for Lindsey Ward to implement her DNP Comprehensive Project, “Educating Providers on Initiating Advance Care Planning with Older Adult Patients in the Primary Care Setting,” at One Community Health.

Sincerely,

Antonio Ballestat, MD
Chief Medical Officer
## Appendix E: Work Breakdown Structure

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
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</thead>
</table>
| Education for Primary Care Providers on Advance Care Planning | 1.1 Initiation | 1.1.1 Identify a personal interest  
1.1.2 Determine an associated problem  
1.1.3 Establish PICOT question  
1.1.4 Conduct literature review  
1.1.5 Determine project goals  
1.1.6 Develop project design |
| | 1.2 Planning | 1.2.1 Design DNP project  
1.2.2 Gather agency’s support  
1.2.3 Submit project proposal to USF  
1.2.4 Revise project  
1.2.5 Submit prospectus with deliverables  
  - Evidence evaluation table  
  - Gap analysis  
  - Gantt chart  
  - Work breakdown structure  
  - Communication plan matrix  
  - SWOT analysis  
  - Proposed Budget  
1.2.6 Revise project  
1.2.7 Write manuscript  
1.2.8 Submit manuscript to USF repository  
1.2.9 Meet with agency leadership |
| | 1.3 Execution | 1.3.1 Make PowerPoint presentation  
1.3.2 Make Survey Monkey questionnaires  
1.3.3 Present educational session  
1.3.4 Thank participants |
| | 1.4 Closeout | 1.4.1 Gather survey results from Survey Monkey  
1.4.2 Transfer results to Microsoft Excel  
1.4.3 Analyze results: demographics, primary outcomes, and secondary outcomes  
1.4.4 Write DNP project report  
1.4.5 Submit report to USF repository |
### Appendix F: Communication Plan Matrix

<table>
<thead>
<tr>
<th>Communication Recipient</th>
<th>From whom</th>
<th>Frequency</th>
<th>Goal</th>
<th>Route</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USF DNP Faculty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. Ricky Norwood</td>
<td>Project lead</td>
<td>Quarterly</td>
<td>Discuss project plan, gather feedback, share updates</td>
<td>Email, Zoom, Texts</td>
</tr>
<tr>
<td>(Project Chair)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. Juli Maxworthy</td>
<td>Project lead</td>
<td>Quarterly</td>
<td>Discuss project plan, gather feedback, share updates</td>
<td>Email, Zoom</td>
</tr>
<tr>
<td>(2nd reader)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Clinic Leadership</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. Brown (CMO)</td>
<td>Project lead</td>
<td>Once then as needed</td>
<td>Propose project plan and gather organization’s support</td>
<td>Email</td>
</tr>
<tr>
<td>Dr. White and NP Matter (Medical Director)</td>
<td>Project lead</td>
<td>Once then as needed</td>
<td>Propose project plan and confirm organization’s support; request audience</td>
<td>Email, face-to-face</td>
</tr>
</tbody>
</table>
## Appendix G: SWOT Analysis

<table>
<thead>
<tr>
<th>Internal</th>
<th>Favorable/Helpful</th>
<th>Unfavorable/Harmful</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>• Relevant to the times</td>
<td>• Difficult to determine how the project will affect ACP implementation at the clinic in the long-run</td>
</tr>
<tr>
<td></td>
<td>• Much literature on the topic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Known benefits of ACP and patient interest, but limited patient utilization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Literature supports education for providers on ACP</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>External</th>
<th>Favorable/Helpful</th>
<th>Unfavorable/Harmful</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opportunities</strong></td>
<td>• Workplace culture of valuing continued education</td>
<td>• Potential differing opinions from providers</td>
</tr>
<tr>
<td></td>
<td>• Workplace culture of supporting colleagues</td>
<td>• CMO and Medical Director potentially could rescind support if due to competing priorities</td>
</tr>
<tr>
<td></td>
<td>• Support from CMO and Medical Director</td>
<td></td>
</tr>
</tbody>
</table>
**Appendix H: Proposed and Final Budgets**

<table>
<thead>
<tr>
<th>Estimated Hourly Wage</th>
<th>Projected Number of Staff Members Present</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse Practitioner/Physician Assistant $77/hr</td>
<td>12 NPs/PAs</td>
<td>$924</td>
</tr>
<tr>
<td>Physician $125/hr</td>
<td>13 MDs</td>
<td>$1,625</td>
</tr>
<tr>
<td><strong>Total -or- Total</strong></td>
<td><strong>1-Hour Session -or- 30-MinuteSession</strong></td>
<td><strong>$2,540 -or- $1,274.50</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated Hourly Wage</th>
<th>Actual Number of Staff Members Present</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse Practitioner/Physician Assistant $77/hr</td>
<td>14 NPs/PAs</td>
<td>$1,078</td>
</tr>
<tr>
<td>Physician $125/hr</td>
<td>7 MDs</td>
<td>$875</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30-Minute Session</strong></td>
<td><strong>$976.50</strong></td>
</tr>
</tbody>
</table>
Appendix I: Survey Questions

Pre-intervention survey

Advance care planning defined: a conversation that identifies a person’s end-of-life care desires should the person be unable to relay this information given a sudden medical decline or emergency.

1. What is your professional title?
   - Physician
   - Nurse Practitioner
   - Physician Assistant

2. How long have you been practicing under this professional title?
   - Less than 1 year
   - 1-5 years
   - 6-10 years
   - 11-15 years
   - 16-20 years
   - Over 20 years

3. Rate your knowledge of advance care planning in the primary care setting.
   - Not at all knowledgeable
   - Slightly knowledgeable
   - Moderately knowledgeable
   - Very knowledgeable
   - Extremely knowledgeable

4. Rate your confidence in facilitating advance care planning in the primary care setting.
   - Not at all confident
   - Slightly confident
   - Moderately confident
   - Very confident
   - Extremely confident

5. Who do you think should be responsible for facilitating advance care planning with patients? (May select more than one)
   - Primary care provider (physician, nurse practitioner, physician assistant)
   - Palliative care/hospice
   - Chronic illness specialist
   - Social work
6. When do you think is the best time to implement advance care planning with patients? (May select more than one)
   - At a new patient appointment or transfer of care appointment
   - At the time of a new diagnosis of a chronic illness (e.g., COPD, DM, CKD, CHF)
   - At the time of a new diagnosis of a terminal illness (e.g., aggressive cancer)
   - After multiple emergency room visits or hospitalizations for a chronic or terminal illness
   - Other
     - Please explain

7. What do you think are barriers to implementing advance care planning in practice? (May select more than one)
   - Limited provider knowledge on the topic
   - Limited provider confidence in facilitating advance care planning
   - Idea that initiating advance care planning could be detrimental to the patient-provider relationship
   - Insufficient time during appointments
   - Idea that advance care planning is not appropriate for the primary care setting
     - Please explain

**Post-intervention survey**

1. Rate your knowledge of advance care planning in the primary care setting.
   - Not at all knowledgeable
   - Slightly knowledgeable
   - Moderately knowledgeable
   - Very knowledgeable
   - Extremely knowledgeable

2. Rate your confidence in facilitating advance care planning in the primary care setting.
   - Not at all confident
   - Slightly confident
   - Moderately confident
   - Very confident
   - Extremely confident

8. Who do you think should be responsible for facilitating advance care planning with patients? (May select more than one)
9. When do you think is the best time to implement advance care planning with patients? (May select more than one)

- At a new patient appointment or transfer of care appointment
- At the time of a new diagnosis of a chronic illness (e.g., COPD, DM, CKD, CHF)
- At the time of a new diagnosis of a terminal illness (e.g., aggressive cancer)
- After multiple emergency room visits or hospitalizations for a chronic or terminal illness
- Other
  - Please explain

10. What do you think are barriers to implementing advance care planning in practice? (May select more than one)

- Limited provider knowledge on the topic
- Limited provider confidence in facilitating advance care planning
- Idea that initiating advance care planning could be detrimental to the patient-provider relationship
- Insufficient time during appointments
- Idea that advance care planning is not appropriate for the primary care setting
  - Please explain

3. How likely are you to change your practices around implementing advance care planning with your older adult patients?

- Very likely
- Likely
- Neutral
- Unlikely
- Very unlikely
Appendix J: Survey Results

Demographics: Professional Title

Q1. What is your professional title?

<table>
<thead>
<tr>
<th>Title</th>
<th># of participants</th>
<th>% of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>4</td>
<td>33.3%</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>2</td>
<td>16.67%</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>6</td>
<td>50.00%</td>
</tr>
</tbody>
</table>
Q2. How many years have you been practicing under this title?

<table>
<thead>
<tr>
<th>Length of time</th>
<th># of participants</th>
<th>% of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>1-5 years</td>
<td>5</td>
<td>41.67%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>7</td>
<td>58.33%</td>
</tr>
<tr>
<td>11-15 years</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>16-20 years</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Over 20 years</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Q3. Rate your knowledge of advance care planning in the primary care setting.

<table>
<thead>
<tr>
<th>Knowledge Level</th>
<th># of participants</th>
<th>% of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all knowledgeable</td>
<td>1</td>
<td>8.33%</td>
</tr>
<tr>
<td>Slightly knowledgeable</td>
<td>4</td>
<td>33.33%</td>
</tr>
<tr>
<td>Moderately knowledgeable</td>
<td>3</td>
<td>25.00%</td>
</tr>
<tr>
<td>Very knowledgeable</td>
<td>4</td>
<td>33.33%</td>
</tr>
<tr>
<td>Extremely knowledgeable</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Post Knowledge

Q3. Rate your knowledge of advance care planning in the primary care setting.

<table>
<thead>
<tr>
<th>Knowledge Level</th>
<th># of Participants</th>
<th>% of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all knowledgeable</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Slightly knowledgeable</td>
<td>1</td>
<td>9.09%</td>
</tr>
<tr>
<td>Moderately knowledgeable</td>
<td>7</td>
<td>63.64%</td>
</tr>
<tr>
<td>Very knowledgeable</td>
<td>3</td>
<td>27.27%</td>
</tr>
<tr>
<td>Extremely knowledgeable</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Q4. Rate your confidence in facilitating advance care planning in the primary care setting.

<table>
<thead>
<tr>
<th>Confidence Level</th>
<th># of participants</th>
<th>% of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all confident</td>
<td>1</td>
<td>8.33%</td>
</tr>
<tr>
<td>Slightly confident</td>
<td>4</td>
<td>33.33%</td>
</tr>
<tr>
<td>Somewhat confident</td>
<td>4</td>
<td>33.33%</td>
</tr>
<tr>
<td>Very confident</td>
<td>3</td>
<td>25.00%</td>
</tr>
<tr>
<td>Extremely confident</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Q2. Rate your confidence in facilitating advance care planning in the primary care setting.

<table>
<thead>
<tr>
<th></th>
<th># of participants</th>
<th>% of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all confident</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Slightly confident</td>
<td>1</td>
<td>9.09%</td>
</tr>
<tr>
<td>Somewhat confident</td>
<td>6</td>
<td>54.55%</td>
</tr>
<tr>
<td>Very confident</td>
<td>4</td>
<td>36.36%</td>
</tr>
<tr>
<td>Extremely confident</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
Responsibility

Pre Responsibility

Post Responsibility
Best Time

Pre Best Time

Post Best Time
Barriers

Pre Barriers

Post Barriers

LIMITED PROVIDER KNOWLEDGE
LIMITED PROVIDER CONFIDENCE
DETMENTAL TO RELATIONSHIP
INSUFFICIENT TIME
NOT APPROPRIATE IN PRIMARY CARE

75.00%
66.67%
41.67%
100.00%
8.33%

63.64%
81.82%
18.18%
100.00%
18.18%
Likelihood of Practice Change

Q6. How likely are you to change your practices around implementing advance care planning with your older adult patients?

<table>
<thead>
<tr>
<th></th>
<th># of participants</th>
<th>% of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very likely</td>
<td>3</td>
<td>27.7%</td>
</tr>
<tr>
<td>Likely</td>
<td>7</td>
<td>63.64%</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
<td>9.09%</td>
</tr>
<tr>
<td>Unlikely</td>
<td>0</td>
<td>0.00%</td>
</tr>
<tr>
<td>Very unlikely</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>