

The Effect of a Palliative Care Consultation during the Admission Process in a Skilled Nursing Facility

Jennifer S Zelen*

DNP, RNC, CHPN, USA

*Corresponding Author: Jennifer S Zelen, DNP, RNC, CHPN, USA.

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Abstract

A palliative care (PC) consultation in a skilled nursing facility's (SNF) admission procedure confers multiple benefits, including clarification of patients' care preferences. However, many SNFs do not offer PC consultations, and rates of advance directive (AD) and power of attorney (POA) completion are low. In a quality improvement intervention to increase AD-POA completion rates, SNF patients were offered, upon admission, a PC consultation and an opportunity to complete ADs-POAs. AD-POA completion rates during the 12-week intervention period were compared with completion rates during a 12-week period absent PC consultation. Lewin's change theory was used to develop policy-practice guidelines. During intervention, AD-POA completion rates (100%) substantially exceeded the target, 60% (control, 0%). By intervention end, all intervention participants' ($n = 57$) medical records contained ADs-POAs; by control period end, only 49% of control participants' ($n = 61$) medical records contained ADs-POAs. Project outcomes supported the premise of the PICOT question, "In patients admitted to a SNF during a 12-week period, how will a PC consultation affect the AD-POA completion rate (i.e., how will the intervention group's rate compare with the rate seen in standard practice)?" Following these outcomes, the SNF's policy now mandates that all incoming patients be offered a PC consultation. The intervention's outcome suggests that including, during patient admission, a PC consultation and opportunity to complete documents can improve AD-POA completion rates and is likely to generate for a SNF and its patients the benefits that these documents can confer.

Keywords: Advance directives; Skilled nursing facility; Palliative care

The Effect of a Palliative Care Consultation During the Admission Process in a Skilled Nursing Facility Recognition of the power of palliative care (PC) has raised awareness and prompted further study of the broad scope of support that PC offers patients and family members throughout the continuum of care. For the staff of skilled nursing facilities (SNF), a central concern is that the individualized PC that staff members provide to patients should be congruent with the patients' wishes and expectations regarding the patients' care and quality of life (Ng et al., 2015). The ability of SNF clinicians and other staff members to provide care that is congruent with a patient's wishes is predicated on the staff's knowing those wishes and more fundamentally, on patients' becoming informed about, contemplating, and recording in writing their desires regarding their care in the present and in the future (Ng, Cheong, Govinda, Teo, & Leong, 2015). Accordingly, patients' advance directive (AD) and power of attorney (POA) documents the formal statements that patients compose for the purpose of instructing staff about the patient's future care of great importance for the patients, their families, and their providers. However, despite the obvious importance of an AD for an older adult SNF patient, a surprisingly large percentage of these patients—53% on average—are admitted to a SNF without having prepared an AD (Tomkins-Greener et al., 2009). Given this deficit in AD preparation, incumbent upon SNFs and their staffs is the responsibility to provide PC education that facilitates patients' completion of their personal ADs (Ersek & Carpenter, 2013). Accordingly, the focus of the QI project described in this paper was to compare patients' AD-medical POA completion rates with two versions of the SNF admissions procedure: the usual admission procedure—in which patients are typically not offered a PC consultation—and a modified admission procedure, in which patients

were consistently offered a PC consultation. The PICOT question addressed in this project was,

“In patients admitted to a SNF during a 12-week period, how will the inclusion of a PC consultation affect the rate of advance care completion (i.e., how will the intervention group’s rate compare with the rate seen in standard practice)?”

Background and Significance

ADs

ADs are legal written instructions that specify a patient’s preferences for medical care in the event that a patient becomes unable to make decisions for her- or himself. ADs inform choices for physicians and other caregivers in the event that the patient becomes seriously injured, terminally ill, or comatose, or enters latter stages of dementia or end of life (Mayo Clinic Staff, 2018). ADs are clearly important for patients, family members, and caregivers. The act of a patient’s creating an AD promotes open communication between the patient, the patient’s family members, and all of the physicians whom the patient and the patient’s family members may encounter.

Medical POAs

A medical POA is a document that confers to one or more individuals the authority to make medical decisions for a patient when the patient is either not competent or physically unable to direct their own care (Mayo Clinic Staff, 2018). An individual with medical POA is the person whom the patient designates to advocate for the patient in ensuring the care providers’ adherence to the instructions, preferences, and wishes that the patient has articulated in an AD. PC conversations open the door of communication between patients and their designated person with medical POA about a wide range of health concerns including concerns that in many cases are highly sensitive. An individual with medical POA is important in that, ordinarily, she or he has had direct conversations with the patient regarding future medical interventions. The person with medical POA makes medical decisions on the basis of the patient’s expressed wishes and are prepared to advocate that care providers adhere to those wishes.

People should review their AD and POA periodically to determine whether these documents currently reflect their wishes. People should also review their documents if they have a new diagnosis or a change in health status. In addition, people should ascertain whether their elected representative with medical POA is prepared and competent to act in the patient’s stead.

Data on AD-POA completion

The evidence concerning AD-POA completion in the United States, although inconsistent, is nevertheless troubling. A systematic review of 150 studies ($N = 795,909$ adults) found that only 36.7% of the studies’ participants had completed an AD. (In the studies, which were published 2011–2016, 81% of the participants were 65 years of age or older, and 63% resided in a nursing home; Yadav, Gabler, & Cooney, 2017).

Impact of palliative interventions

The World Health Organization describes *palliative care* as “the active, total care of patients whose disease did not respond to curative treatment” (World Health Organization, 1990, p. 11). PC is a comprehensive service that addresses physical symptom management, provides patient disease education, and promotes the alignment of a patient’s care with the patient’s care preferences as the patient continues to receive routine medical care. Palliative interventions have been found to benefit patients who require such care, their family members, and the health care institutions and physicians who care for these patients.

Impact of PC on patients

A substantial body of evidence indicates that palliative interventions improve the management of patients’ symptoms (Pivodic et al., 2013). In addition, research has found that PC—specifically, patient and family education provided as a component of PC enhances

patients' knowledge of the patients' state of health (Hall, Kolliakou, Petkova, Froggatt, & Higginson, 2011). Patient PC education empowers patients by enabling them to become better informed about and often less fearful of issues regarding their health and medical interventions. During PC education, patients can discuss sensitive issues and complete the legal documents that are necessary to ensure adherence to their wishes. Ideally, the family is involved in the patient's care and is also aware of the patient's wishes. In addition, if the patient is suffering from a physical symptom, these symptoms are also addressed; this discussion of symptom management typically leads to improvement of the patient's daily quality of life.

Impact of PC on health care institutions, physicians and insurance companies

PC beneficially affects health care institutions in several ways—for example, by decreasing the rates of hospital readmissions, emergency room visits, and unplanned doctor visits, as well as by decreasing patients' average length of stay (Smith, 2013). Palliative interventions also have a major financial impact on insurance companies. One quarter of a Medicare-insured patient's Medicare dollars are spent in the last 6 months of the patient's life (Hebert, Moore, & Rooney, 2011). Coincidentally, Medicare guidelines states that eligibility for hospice services also reflect an expected a life expectancy of approximately 6 month's survival time for the patient (Mitchell et al., 2010). The relationship between these guidelines and the effectiveness of PC in reducing insurance expenditures is evident in terms of substantial potential cost savings.

Barriers to Patient–Clinician Discussion of PC and to AD–POA Completion

At the SNF where the QI project was conducted and at SNFs nationwide, several factors act as barriers that inhibit or prevent the occurrence of PC conversations and patients' completion of ADs and POAs prior to admission or on admission to the SNF (ABC, MD, Medical Director, personal communication, September 16, 2016; see also Glick, Mackay, Balasingam, Dolan, & Casper-Isaac; 1998). These barriers may be related to patients, physicians, or the SNF's staff. A consideration of these barriers further substantiates the rationale for implementing an intervention that facilitates patients' completion of AD–medical POA forms.

Patients' barriers to completion of AD–POA forms

Thorough discussion of patients' barriers to the completion of AD–POA documents is not within the scope of this paper. However, a 1998 review of 15 studies conducted by Glick et al. (1998) reported three leading barriers: “lack of education or knowledge regarding advance directives,” “difficulties with paperwork completion,” and “discordance between patient, family members or proxy, and provider” (para. 1). A subsequent study by West and Hollis (2012) reported additional AD completion barriers related to proxy decision making, inadequate education regarding AD conversations and documentation, and denial and fear. In addition, a study by Schickedanz et al. (2009) has reported that patients' low health literacy can also be a barrier to their completion of AD documentation.

Barriers for physicians, nurses, and other staff members

Time constraints were the primary barrier to the physicians having PC conversations with their patients. Most of the physicians who saw patients at the SNF had substantial private practice responsibilities and/or were responsible for several hundred patients within the single SNF (ABC, MD, SNF medical director, personal communication, September 20, 2016). In informal conversations with the project leader, the SNF's nurses and other staff members stated that they felt that they did not have the authority and knowledge to talk about these issues with the patient. These staff members viewed PC patient education as the responsibility of the physician (ABC, MD, SNF Medical Director, personal communication, September 20, 2016).

Project Description

Historically, in rural Pennsylvania, PC has not been offered in an organized manner; elsewhere in the state and nationwide, urban areas have provided this service only in recent years. Furthermore, although patient–clinician discussions of PC commonly occur elsewhere in hospitals, PC discussions are often not offered in a SNF (Ersek & Carpenter, 2013). Typically, most SNFs engage their residents

in PC discussions only after the residents have had multiple readmissions to the hospital (Perry, Land, & Seymour, 2014). For many of the patients' families, this lack PC discussion has often caused fear, discomfort, and mistrust (Hebert, Moore, & Rooney, 2011).

SNF admission practice at the QI project site

At the SNF where the quality improvement project was conducted, the prior (i.e., pre-project) admission procedure had included no discussion of PC nor were patients offered PC consultative support that might have been provided at any point after admission. If a patient or a patient's family member specifically asked for PC consultative support, a SNF member would first obtain from the patient's doctor an order that would permit the patient to have a PC consultation. Other than SNF patients who themselves requested PC counseling or whose family member requested PC counseling on behalf of the patient, the only SNF patients who were provided PC counseling were those who had been specifically referred to PC by an outside agency. As a result of the lack of discussion of PC counseling in or after patients' admission to the SNF, during the quality improvement project's 12-week control group period, none of the control group (CG) patients had received any form of PC counseling. Furthermore, the admission procedure provided no opportunity for the patient to establish a medical POA to ensure that the patient's health care goals and preferences would be honored should the patient lose the capacity to communicate with the medical staff.

Admission procedure's PC question

The admission procedure's only PC-related content entailed asking the admitted patient a single question, typically phrased as follows:

Ms. (or Mr.) ___, if a staff member finds you without a pulse or not breathing, do you want to be resuscitated? That is, do you want to be given CPR—a procedure that might get your heart and your breathing started again—or do you want to be allowed to have a natural death?

Notably, this single PC-related exchange between the patient and the admissions nurse or social worker did not address the patient's underlying disease processes, the natural progression of the disease processes, the future decisions the patient or family would be asked to make, or the implications of treatment options to the patient's day-to-day quality of life. Moreover, prior to admission to the SNF, most patients and their family members themselves had personally engaged in relatively little consideration of the care that the patients might want should they ever require long-term care. Thus, for example, on being admitted to the SNF, most patients and their families did not know that the patients would not be required to begin medical treatments that did not make sense to them or were viewed as painful or futile. Saliiently for the present QI project, as mentioned earlier, the rate of AD and/or medical POA form completion by patients admitted to the SNF was only 15%—substantially lower than the national average (ABC, MD, SNF Medical Director, personal communication, September 20, 2016). Not surprisingly, the resulting deficit of PC information and preparedness among patients, their families, and the SNF's clinicians typically resulted in health care decisions' being made absent of adequate knowledge—and often in conditions of crisis (Bausewein, 2015).

In light of the ramifications of the absence of PC discussion for SNF patients, rectification of this deficit in the SNF's admission procedure was clearly warranted. If information concerning PC (and, when appropriate, palliation itself) were offered prior to discharge if and when patients were readmitted, many of the patients' issues could be resolved or mitigated, and their overall quality of life would improve (ABC, MD, SNF Medical Director, personal communication, September 16, 2016). Patients and families have reported feeling better prepared emotionally for changes in their health following a discussion about PC options (Cavieri, 2010). Furthermore, prior to patients' acute care admission to the hospital, patients and families in the hospital often voice a desire for PC (Pillimer, Chen, Riffin, Prigerson, & Reid, 2015).

Needs Analysis

Recognition of need

The need for the intervention implemented in the QI project was not identified through a formal needs analysis. Rather, the SNF's leaders—the SNF's administrator, director of nursing, admissions nurse, and social worker—learned of the admissions practice deficit in a meeting with an expert PC nurse (who subsequently became the project's leader). Specifically, the SNF's historical practice had been to admit patients without providing them with support to complete ADs and POAs and without providing PC (unless a patient had explicitly been recommended PC by patients' referring provider). During the meeting of the SNF's leaders and the PC nurse, the nurse explained the potential consequences of the practice deficit and the need for intervention, and she proposed the QI project. As discussed later in this paper, on hearing the PC nurse's presentation, the SNF's leaders immediately approved the project and its intervention.

Stakeholders' concerns

Multiple stakeholders had needs and concerns that stemmed from or were related to the SNF's admission practice deficiencies in not providing incoming patients with PC education and in not proactively supporting incoming patients' completion of AD-POA documents. These stakeholders included affected patients and their family members, the SNF's leaders, and the SNF's staff, and the patients' physicians. Again, although prior to the QI project these concerns had not been explicitly identified in a formal needs analysis, the SNF's patients, nurses, physicians, and other staff members had, in informal conversations, expressed various concerns regarding patients' AD and preferences for care.

Patients' concerns

Upon admission, patients typically self-reported that they had only a vague understanding of their disease process and that they did not know what to expect in the future as their disease progressed. They also stated that they did not know how their health, ability to perform routine activities of daily living, and quality of life would be affected as their disease(s) progressed (ABC, MD, SNF medical director, personal communication, September 20, 2016). In addition—and crucially—patients had little foreknowledge of the kinds of medical care decisions they would likely be asked in the context of this disease progression.

Family members and surrogates' concerns

Among families with loved ones who had dementia, family members did not understand the progressive nature of this neurological disease and that it was more than forgetfulness. They also had no knowledge of the decisions that they would eventually be asked to make for example, regarding hospitalizations for possible systemic infections and placement of a feeding tube. Most important, family members or the designated individual who had medical POA typically did not understand that a patient's representative must agree to uphold any decisions or make advance care decisions if the patient is unable to do so (e.g., dementia, stroke). As a result of their lack of knowledge, family members and surrogates often voiced dissatisfaction and dismay with being asked to make decisions for which they felt unprepared.

SNF leaders' concerns

Before the implementation of the QI project, the SNF's leaders had realized that the extent lack of recorded patient advance care preference information was a cause for concern, but they did not know how to rectify the deficiency. The leaders understood that the lack of direction regarding current and future medical care might result in the application of medical interventions that the patient might not want or know was a possibility. Typically, patients who lacked an AD also lacked a designated medical power of attorney. For such patients, in an emergency, a person would not have been designated to give direction regarding care.

SNF staff concerns

Prior to the QI project, staff members sometimes voiced concerns regarding deficiencies in various patients' admissions processes. For example, the SNF's admissions nurse or a social worker might point out that information regarding a patient's resuscitation preference or code status was missing. Staff members who provided hands-on care realized that this lack of recorded information was problematic, but prior to the initiation of the intervention, they simply viewed the lack of information as an incidental, un-rectifiable consequence of accepted standard admissions practice.

Nurses' specific concerns

As noted above, prior to the QI project's inception, the SNF's nurses had not been trained in PC as is the case with nurses at most SNFs nationwide. Similar to SNF nurses at other SNFs (Bausewein, 2015), some of the SNF nurses at the project site had disclosed that they felt uncomfortable in initiating end-of-life (EOL) discussions. Also, nurses voiced frustration that patients' families did not understand what to expect regarding their loved one's disease progression; moreover, as mentioned, the nurses felt that they (the nurses) lacked the authority to discuss this progression.

Project Structure

The QI project had 8 components: (a) a needs assessment, (b) a review of relevant literature, (c) a presentation to SNF leaders, (d) final project design, (e) introductory presentations to SNF staff, (f) recruitment of sample participants (i.e., patients), (g) implementation of the multimodal intervention referred to as the "PC consultation," and (h) data analysis. The intervention, discussed more fully in this paper's "Description of the Intervention" section, had two components: an initial "PC encounter," (consisting of a "comprehensive conversation" an opportunity for patients to complete AD-medical POA forms) and additional PC counseling meetings (if and as needed).

Studies related to the addition of PC to the management of routine medical care have been replicated in a variety of practice settings and have reported similar results. However, few studies have examined the use of PC consultations prior to the patient's experiencing issues related to disease progression. Also, although researchers such as Meier (2011), Smith (2013), and Beider (2015), and have contributed substantially to clinicians' understanding of PC's utility in augmenting symptom management, most studies of PC have not explored the psychological, emotional, or spiritual support that palliation clearly offers. Ford (2016) discussed symptom management regarding anxiety and noted that a holistic approach enhanced patient comfort. In addition, the evidence regarding the support that palliation provides to patients' family members and the effects of PC in empowering patients and family members in medical decision-making suggests that further research is warranted.

In the literature reviewed, the overwhelming consensus was that more research on the application of PC into the nursing home setting is needed. In specific diagnoses (cancer, CHF, COPD, and dementia) PC has been reported to improve the patient's stated quality of life; PC has also been reported to increase longevity (Pillimer et al., 2015). Few studies have been conducted on populations with unrelated diagnoses because cohorts of people of similar ages who live in a nursing home typically do not have the same medical issues. Although research has shown overall improved patient outcomes with the implementation of a PC service, this effect of PC consultation on AD and POA completion has not been demonstrated, because of the lack of availability of the service in this particular area.

Context

In designing and executing the QI project, multiple influencing contextual factors were considered. Leading factors include factors related to the local environments physical and sociocultural composition. The local environment in which the QI project was conducted comprises the external environment and the internal environment of the facility in which the project was implemented. The project was conducted in a SNF that is located in an urban area in rural Pennsylvania. The population is predominantly White and of middle age; the median income is below the national average. The region's cost of living reflects the population's income status, and as a result,

the area in which the SNF is located is considered more affordable than are other urban areas, and is relatively stable. The majority of inhabitants were born there. However, for the younger adult population, industrial stagnation and lack of new business development have been detrimental to the availability of employment opportunity and economic stability. The main complaint voiced by older residents is that “there isn’t anything to keep young people here.” In addition, the younger adult population has also suffered from a recent trend in increased opioid use for recreational purposes.

Organizational structure, dynamics, and culture

The SNF’s structure, dynamics, and culture have been shaped by (a) available resources and the practical requirements of providing care to the facility’s patient population, (b) the approaches that the SNF’s leaders and staff have taken to fulfill those needs, and (c) the collective skill sets, work ethic, and attitudes that leaders and staff have applied in the provision of care. Specifically, the SNF’s daily census averages about 130 patients. One factor in the fluctuation of the patient census is that the SNF also offers short-term rehabilitation for people who intend to return home after discharge. The facility itself is a single building with eight wings; each wing cares for up to 20 patients.

Stakeholders

Stakeholders in the outcome of the QI project included:

- **Patients**—The patients were stakeholders in the QI project because, through the intervention, their physical symptom management could potentially improve. Also, they would learn about their health issues, including comorbidities, and how their health issues interrelated. In the project’s intervention, patients would learn about their laboratory test values, testing results, and how these values and results reflect in their physical assessment and physical abilities. In addition, patients would receive emotional, psychological, and spiritual support related to changes in the patients’ health status. As a result, they would be empowered to elect or reject proposed medical interventions that were aligned with their personal views regarding quality of life.
- **Patients’ family members**—Patients’ family members were stakeholders in the QI project because the intervention would present opportunities for the families to communicate with their loved one about future medical treatments. Given that in many instances the family must make medical decisions on behalf of the patient, they now had a clear idea how aggressive to be with medical care. They also received emotional psychological, and spiritual support as they, in turn, supported their loved one.
- **The local community**—Members of the community as a whole were stakeholders in the QI project because they could learn about the value and support that PC offers—and potentially someday use and benefit from those PC services.
- **SNF leaders**—The SNF’s leaders were stakeholders in the QI project because they were committed to continuously improving the level of evidence-based support that the SNF is able to provide. Also, the SNF leaders were interested in the project’s potential financial implications. Furthermore, they were interested in the opportunity to advertise this added support (i.e., PC support) to the community and to those who are interested in moving into the SNF.

The Intervention

The Sample Patient population

Patients are admitted to the SNF based on their need for short-term rehabilitation or long-term care and housing. Although every patient’s set of diagnoses and disease processes is in some way unique, diagnoses of dementia, COPD, CHF, renal insufficiency, cancer, and general debility are common.

Sample formation

Subsample formation for the QI project’s groups used two different procedures. The intervention group was formed via personal recruitment of new patients as they were admitted to the SNF. The control group—or more accurately, the control group’s data—were compiled from prior patients’ medical records.

The intervention group

The intervention group was recruited from eligible patients who were admitted to the SNF during the project's 12-week intervention period, February 25, 2018 to May 19, 2018. Eligibility for inclusion in the intervention group had a single criterion: willingness to participate in the PC encounter intervention; correspondingly, exclusion had one criterion: being unwilling to participate in the intervention. To recruit patients for participation in the intervention, during the initial admissions process, SNF admissions staff members offered 60 patients an opportunity to participate in individual PC consultations. The patients had the option to participate in the PC consultation or to decline to participate. A total of 57 patients accepted the offer of a PC consultation and were thereupon enrolled in the intervention group. All 57 of these patients subsequently participated in an individualized PC consultation.

Patients who declined the offer to participate in a PC consultation

Of the 60 patients, three declined the PC consultation and were excluded from study participation. These three patients also did not disclose whether they had previously completed an AD document.

The control group

As stated, the control group's data were compiled from the medical records of patients at the SNF. These data were compiled during a 12-week timeframe (December 3, 2017 to February 24, 2018) prior to the initiation of the intervention. The control group data included information concerning patients' gender, age, comorbidities, family support, spiritual beliefs, and whether the patients' records contained AD and medical POA documents.

Participant demographics

The demographics of the intervention group ($n = 57$) and the control group participants' ($n = 61$) demographics were similar (see Appendix B). For the purpose of subsequent data analysis, participants were grouped by age: younger than 60 years (0), 61–70 years (6), 71–80 years (15), 81–90 years (27), and 91 years or older (12). Both groups comprised high school graduates, trade school graduates, and patients who had attended college for some period of time. Over half of the men were veterans.

Participant health status

In addition to the intervention group's and control group's similarity in subsample size and demographics, the two groups' health status and disease states were also similar—and typical of patient populations at SNFs throughout the region. Patients are admitted to SNFs based on their need for short-term rehabilitation or long-term care and housing. As with SNF patients in general, the participants in the QI project had relatively high rates of dementia, chronic obstructive pulmonary disease (COPD), CHF, renal insufficiency, cancer, and general debility. However, individual patients had a unique set of diagnoses and disease processes. Some SNF patients had congenital or chromosomal problems that precluded them living independently. Given the diversity of the patients' health status and conditions, the patients' care needs were also diverse ranging from short-term rehabilitation to long-term care and housing.

SNF placement- and health-status

Of the 57 intervention group patients, 32 were in long-term placement, and 25 were in short-term placement. Three of the long-term patients were admitted for hospice care. All the intervention group patients were still accepting aggressive treatments and were not considered to be at the EOL. The most common diagnoses for intervention group patients who were admitted with existing documents were dementia and COPD. The majority of intervention group patients who went on to complete an AD had diagnoses of CHF and Parkinson's disease. The three patients who refused the intervention had diagnoses of COPD and dementia.

Of the 61 control group patients, 30 were in long-term placement. Twenty-five patients were admitted for short-term placement, and six were admitted for hospice care.

Participant advance care documentation status

For intervention group participants and, earlier, control group participants, the individual admissions process was determined by (a) whether a patient was in the control group or intervention group, (b) whether a patient presented a previously completed AD document, and (c) during the intervention period, whether the patient accepted the invitation to participate in a PC consultation.

Intervention group

On admission, 17 of the intervention group's patients presented a previously completed AD document. In this individual admissions process with an admissions staff member, each of these 17 patients then reviewed her or his AD for accuracy and, when necessary, revised the existing document. On reviewing their ADs, 10 of the 17 patients rescinded their prior full code stipulation and instead stipulated "do not resuscitate." The other seven patients, who had previously stipulated DNR, did not rescind their DNR instructions. Of the remaining 40 patients who had not completed an AD prior to SFN admission, all completed their first AD ($p = .95$).

Patients who declined the intervention

Prior to being invited to participate in the PC consultation intervention, the three patients who declined the invitation were asked the single standard PC-related question asked of all of the project's participants (intervention group and control group) regarding preference for CPR or natural death.

Control group

In obtaining control group patient data, if the hospital had a patient's AD document on file, the document was reviewed to ensure that it was up to date and that it represented the instructions and preferences of the patient and family members. Of the 61 control group patients, 30 had AD-POA documents ($p = .49$); all of these patients had completed their ADs prior to admission to the SNF. Among these patients, the lengths time between completing ADs-POAs and admission to the SNF ranged between 5 and 20 (or more) years. The majority of control group patients who had an AD had diagnoses of cancer and cardiac diseases. The majority of patients who did not have an AD had diagnoses of COPD and dementia. The mean age of patients with an AD was 84 years (range: 70–98 years).
Description of the Intervention.

Overview: The PC consultation intervention

As stated, a PC consultation (i.e., the intervention) consisted of an initial "PC encounter" and optional additional PC consultative meetings. The PC encounter consisted of a comprehensive conversation and completion of AD and POA documents. In the admissions procedure that occurred during the intervention phase of the QI project, prospective participants—all of the 60 patients admitted to the SNF during the project's 12-week timeframe—were individually invited to participate in a personal PC encounter with a PC nurse.

The admission process prior to invitation to a PC encounter

In the admission process prior to the statement of the invitation, the admission nurse obtained from the patient the patient's financial information and medical history. Also, the nurse requested and obtained the patient's signed consent forms, inventoried the patient's clothing and belongings, gave the patient an orientation to the facility and to the patient's room, reviewed the patient's medication with the patient, and administered a TB screening for the patient. In addition, during admission, all patients—including both the intervention group patients and the three patients who declined to participate in a PC encounter—were asked whether they preferred to be given CPR or to be allowed to have a natural death. Once all the preliminary admissions actions had been completed, the admissions nurse or social worker offered the patient an opportunity to participate in a PC encounter.

(Note: During or shortly after admission, if patients required short-term rehabilitation and then were to be discharged to home, a social worker would anticipate and attend to patients' needs. Such needs could include needs for physical therapy, health aides, family

support, medical equipment, and determination of the safety of the patient's home.)

Extending the invitation to participate in a PC encounter

Intervention group patients were asked either by the admissions nurse or by a social worker if a PC encounter could be part of the patients' admission process. Through use of a script, this invitation was stated the same way for all 60 patients who were invited to participate in the PC encounter:

"There is a service that we are offering. A nurse who discusses planning for future health care can speak with you, talk about your health problems, and complete an advanced directive if you don't have one, or review it if you do."

The invitation was presented as a normal part of the admission process. Patients were not aware that PC encounters were not previously offered in the SNF's standard admission procedure. If a patient accepted the invitation, the admissions nurse or social worker would tell the patient that she (the staff member) would contact the PC nurse and that the PC nurse would arrange to talk with the patient at a time that would be convenient for the patient. Next, the admissions nurse would inform the PC nurse that a recently admitted patient wanted to talk with her (the PC nurse). The PC nurse would initiate follow-up contact with the patient within 1 day.

The PC encounter

Objectives of the PC encounter

As planned counseling sessions, PC encounters had four objectives. First, as described earlier, the PC encounter provided an explanation of health issues and of predicted intervention choices. Second, the PC encounter provided an opportunity for a PC member to assist the patient with the completion of an AD and a medical POA document. Third, PC encounters provided an opportunity for patients' family members to participate in the admission process. Fourth, and more generally, the encounters facilitated ongoing open communication between the patient, the patient's family members, and the SNF staff as a whole.

Participants in the PC encounter

Each PC encounter was attended by an individual patient, by one or more of the patient's family members and/or by a designated surrogate, by the PC representative, and by any additional SNF staff if warranted. Any of the patient's family members who wished to attend could attend if the patient or the patient's surrogate agreed to having the family member participate. Typically, family members' attendance was motivated by their interest in gaining insight into and knowledge about the patient's palliative care. The PC Team comprised the PC nurse, the social worker, and a chaplain from Pastoral Care. Given that the PC encounter's focus was the patient's life decisions, the patient was understood to be the PC encounter's central participant. The PC nurse moderated the discussion, offered symptom management explanations, and provided disease-oriented education. For patients requiring short-term rehabilitation, the social worker coordinated outpatient follow-up actions. Following a patient's PC encounter, the admissions nurse communicated any medical decisions to the staff who would care for the patient. For many patients, family members, and surrogates, the comprehensive PC conversation served as their first opportunity to engage in an open discussion about health matters that were often highly sensitive. Often these health matters were very serious.

Delivery and content of the comprehensive PC conversation. The comprehensive PC conversations ranged in length from 30 minutes to 2 hours—depending on individual patients' PC education needs, interests, and willingness and/or ability to sustain the conversation.

Topics were tailored to be relevant to both the patient and the actual participant(s) in the conversation (i.e., patient, family member, surrogate, or a combination of any of these three possible participants). Specific factors in this tailoring included the individual patient's health status, knowledge ability about the patient's personal health conditions, general level of health literacy, general understanding of curative care and palliative care related to their health conditions and status, cognitive ability to comprehend informa-

tion, attentional capacity, emotional status vis-à-vis the patient's health status and related issues, perceived comfort with discussing sensitive issues, hearing ability, and any relevant spiritual or other beliefs that the participants might state during the conversations. This tailoring was particularly complex when multiple individuals—patient, family member(s), and/or surrogate—participated in a PC conversation.

Opportunity to review or complete AD-POA documents

At the end of the comprehensive conversation, the PC nurse determined whether the patient had already completed AD documents (i.e., an AD and a POA). If the patient had previously completed these documents, the documents were reviewed to determine whether they still accurately represented the patient's current instructions, preferences, and wishes. If the documents did not represent the patient's current instructions, preferences, and wishes, a new AD was completed. If the patient did not have completed AD and medical POA documents, the patient was offered an opportunity to complete one or both documents.

Measures

Measures for Data Analysis

The measure chosen for this intervention was the difference between the rate of completion of ADs by participants in a PC consultation intervention (i.e., patients or their surrogates) versus the rate of completion ADs by patients or surrogates who did not participate in the intervention.

Data Collection Timeframe

For both the intervention group and the control group, data collection entailed compilation of participant data during the groups' separate 12-week timeframes (i.e., the control group's data were data that had been recorded during the 12-week period immediately preceding the intervention group's data collection period). These identical timeframes were sufficient to enable enrollment of adequate and similar numbers of participants for both groups. The timeframes were also sufficient for enabling enrollment of patients who, collectively, had multiple diseases and whose diseases were in multiple disease states. The resulting diversity of represented disease states prevented the limitation of the project's findings to particular disease states of a limited number of diseases (e.g., to dementia, CHF, or COPD).

Evaluation Criteria

Compliance measurement

All the intervention group and control group participants' AD and POA forms (if available) were examined to determine whether they were "complete." A form was deemed "complete" if (a) any part of the form had been completed (even if other parts of the form had not been completed), (b) the participant had signed the document, and (c) the participant's completion (in part or as a whole) had been legally witnessed, as verified by a witness's signature.

Verification that Planned Change Occurred

The project leader, the SNF social worker, and the SNF admissions nurse examined all data from the intervention group and control group. These PC team members first assessed the data's accuracy and determined the data's quantitative significance. The team members then compared and documented the AD completion rates of the intervention group and the comparison group.

Analysis

Type of Data

The type of data compiled in this study were experimental, quantitative, and dichotomous nominal—that is, data from a group that was exposed to an intervention were compared with data from a group that was not exposed to the intervention (Institute for Work

and Health, 2016; Kaur et al., 2018). The intervention group and control group data were examined with regard to age groups. Also, for both patients who had completed an AD and those who had not completed an AD, the prevalences of their various medical diagnoses were noted.

Statistical Test

Logistic regression, which is categorical in nature, was applied in the review of the data (Sperandei, 2014). Because the project had one nominal variable, the completion rate of ADs based on the addition of a PC conversation provided a predictive analysis of future document completion. As previously mentioned, for the control group participants (who did not participate in the PC conversation), the AD-POA completion rate was 49%; for the intervention group participants, who participated in the PC conversation, the AD-POA completion rate was 100%.

Quantitative Methods

Quantitative methods were used to determine the effectiveness of the PC consultation intervention as indicated by patients' rates of completion of AD and medical POA forms. Descriptive and inferential statistics measured the effect of the project's intervention, the effect on outcomes, and the interpretation of the data.

The outcomes of the intervention measured by comparing the document completion rate of patients who participated in the intervention with that of patients who had not participated in the intervention. Whether the patient, family member(s), and/or surrogate availed themselves of the initial PC encounter offered during the patient's admission process was also noted and recorded. After Week 12 of the intervention period, data regarding patients' AD-POA completion (or non-completion) were examined and compared with the prior AD-medical POA completion rates during the control period.

In the project's planning stage (prior to intervention implementation), the intervention's outcome target was that at least 60% of patients would complete their AD and medical POA forms. An improved completion rate would suggest that participants recognized the value and importance of completing these legal documents and acted upon this recognition. Given that, during the control period, patients were not provided with PC education, and that patients' historical AD-medical POA completion rate was relatively low (e.g., 49% for the pre-intervention control group), the intervention group's achievement of a targeted 60% completion rate (or higher) would indicate that the PC consultation intervention was efficacious in improving patients' AD-POA completion rate.

Because the QI project's study periods—the control period and the intervention period—were equal in length (i.e., 12 week), and because historically the rate of SNF admissions had been relatively consistent throughout each year, the subsample size of the intervention group was expected to be comparable with that of the control group. The SNF's leaders had estimated that a 12-week timeframe would yield 75–100 patients—the typical range of the number of new patients admitted to the SNF in a 12-week period. The SNF's leaders anticipated that during the winter months the monthly admission rate would be higher than the rate during the rest of the year (because of admissions of patients needing rehabilitation from falls and surgeries and patients who would opt to stay at a SNF during the winter months).

In this SNF prior to the intervention, fewer than 50% of the patients had completed a declared AD or medical POA. On admission, patients were asked whether they wanted to be given full resuscitation or allowed to have a natural death. Sixty percent of the patients instructed staff to maintain a full code status (ABC, MD, SNF Medical Director, personal communication, September 20, 2016).

Results

The QI project's primary aim was to determine whether a PC conversation would increase patients' rate of completion of AD-medical POA forms. This aim was achieved. By the end of the 12-week control period, control group patients' rate of AD-medical POA completion was 49%. In contrast, by the end of the 12-week intervention period, intervention group patients' rate of AD-medical

POA completion was 100%. Even more striking was the between-group difference in document completion rate for control group and intervention group patients who began their SNF admission process with no ADs or medical POAs. Among control group patients who lacked ADs or POAs upon admission, the rate of AD–medical POA completion during their admission and throughout their stay at the SNF was likely to have been 0%. In contrast, among intervention group patients who lacked ADs or POAs on admission, the rate of AD–medical POA completion during their admission and throughout their stay at the SNF was 100%.

Recommendations for further research

Five considerations substantiate the need for further research on the effects and efficacy of PC education interventions in nursing homes and other clinical settings: (a) the strength of the outcomes of this QI project, (b) the current low rate of AD–medical POA completion in SNF and other patient populations nationwide, (c) the paucity of published research on this and related topics, and (d) the great potential benefits of PC research and interventions for all stakeholders—patients and their families; clinicians and caregivers, nursing homes and health care institutions in general, the health care system as a whole, and indeed the nation’s economy and general well-being. Among all of these stakeholders, of course the U.S. population of older adults as a whole—as likely consumers of palliative care now or in the future—have the greatest urgency of need for further PC research.

Summary

As stated earlier, by the end of the 12-week control period, control group patients’ rate of AD–medical POA completion was 49%. In contrast, by the end of the 12-week intervention period, intervention group patients’ rate of AD–medical POA completion was 100%. Among control group patients who lacked ADs or POAs upon admission, the rate of AD–medical POA completion during their admission and throughout their stay at the SNF was 0%. In contrast, among intervention group patients who lacked ADs or POAs on admission, the rate of AD–medical POA completion during their admission and throughout their stay at the SNF was 100%.

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Appendix A: Participant Demographics and SNF–Hospice Status.

Characteristic	Intervention n = 57	Control n = 61
Age		
Mean age	83	84
Range	62-99	67-98
Age Group (years)		
< 60	0	0
61–70	6	6
71–80	15	16
81–90	27	27
91+	12	12
Gender		
female	31	40
male	26	21
f/m ratio	1.2:1.0	1.9:1.0
SNF–Hospice Status		
long-term care	32	30
long-term patients admitted to hospice	3	6
short-term care	25	25
long-term patients admitted to hospice	3	6

Appendix B: Participant AD–Medical POA Status.

<i>AD–Medical POA Status</i>	<i>Intervention n = 57</i>		<i>Control n = 61</i>
	<i>n</i>	<i>%</i>	<i>n</i>
On arrival at admission			
Arrived at admission without AD–POA	30	(53)	30
Arrived at admission with completed AD–POA	27	(47)	31
During admission			
Completed new AD	30	(53)	0
Reviewed existing AD	27	(47)	0
End of 12-week period			
ADs completed by patients who had lacked them	30	(100)	0
Possessed AD	57	(100)	30
DNR vs. full-code election			
Arrived at admission with completed AD	27		31
Elected DNR	17	(63)	–
Previously elected full code, then revised during PC encounter	10	(37)	–

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