Advance Care Planning: Providing Direction for Patients and Providers

Maria Krasowski

Arizona State University

Abstract

Many older Americans don't have an advance directive (AD). ADs are legal documents that allow a person to express what types of medical treatment or cares that they want at the end of their life if they were unable to speak for themselves. Patients without an AD could receive unwanted treatment. Providers can utilize advance care planning (ACP) to educate patients and support them in forming a medical power of attorney (MPOA) and AD. Evidence suggests that having ACP conversations can engage a patient to form an AD. The purpose of this project was to see if ACP discussions with older patients encouraged them to complete an AD and MPOA.

The project used a mixed method design. Participants were recruited from a primary care practice. Descriptive statistics described the sample and outcome variable. An independent t- test measured if there were significant changes in the participant responses for the ACP survey.

The average age (standard deviation) of the chart review sample was 72.22 (SD=9.47). The ages ranged from 60 to 100 years of age. Most of the sample in the chart audit were female with 105 (53%) participants and 95 (48%) were male. Most of the sample, 183 (92.5%) reported having a chronic health condition and 17 (7.5%) of the sample reported having no chronic condition. Overall, the results were inclined towards a significant difference in participants who did the ACP discussions and those who did not when comparing completed AD forms.

Keywords: Elderly, advance care planning, medical power of attorney, advance directives, and primary care

Advance Care Planning: Providing Direction for Patients and Providers

Healthcare has always been a field that is constantly changing. One change America will be facing in healthcare is the growing elderly population. By 2040 the number of adults in the United States (U.S.) who are 65 years or older could grow to be 21.7% of the population (Health and Human Services, 2016). As the number of older adults increases it is natural that the occurrence of chronic health conditions will also increase. One way healthcare is adapting to meet the medical needs of older persons is to address the situations they will most likely be facing. The Institute for Healthcare Improvement and the American Hospital Association have a goal to develop an evidence based Age Friendly Health System Model for 20% of hospitals and health systems in the U.S. by 2020 (Fulmer, 2016). Within this model the two organizations are promoting the use of ADs among the older population. This paper will discuss the use of ACP, and explore how it can improve the completion rates of AD among older adults.

Problem Statement

Many of the population within the U.S. today do not have an AD. Hinders (2012) estimated that 30% of Americans have an AD, while others stated 18% to 36% of Americans have an AD (Pecanac, Repenshek, Tennebaum, & Hammes, 2014). The low number of ADs in use is also cited as an international issue. In 2010 the New Zealand Nurses Organisation stated their mission was to increase the use of ADs (Davidson, Banister, & Vries, 2013). An AD is defined as a legal document that enables a person to provide specific instructions in regard to their wishes for health care in the event that they are no longer able to make their wishes known (Hinder, 2012). ACP is described as the process in which the patient, family members, and healthcare professionals discuss and form a patient's future goals of health care with their values and preference in mind (Johnson et al., 2016).

If a patient does not have an AD, and they are terminally ill then they could suffer from resuscitation or life-sustaining treatment that they might have refused (Ke, Huang, O'Connor, & Lee, 2015). When questioned 77% of people said they would not want to depend on a ventilator in order to live a month longer. Numbers show that Medicare spends 25%-30% of its funds on the 5% of the Medicare population in the last year of life (Fine, Yang, Spivey, Boardman, & Courtney, 2016). Those who have an AD are more likely to have less anxiety and depression. Family is also more likely to have less stress (Fine et al., 2016).

ACP may be more appropriate for patients in a primary care setting compared to patients in a hospital since it involves multiple discussions. ACP gives patients and healthcare providers the chance to improve communication about ADs (Butler, Ratner, McCreedy, Shippee, & Kane, 2014). ADs can let healthcare providers know what a patient's preferences are and can relieve family members of the burden of making end-of-life (EOL) decisions (Hickman & Pinto, 2013). They can also give a patient more autonomy when they cannot speak for themselves (Spoelhof & Elliot, 2012). ACP should be used more often to help inform patients about ADs.

Purpose and Rationale

Utilizing ACP can give patients formal guidance that could lead to them completing an AD. ADs can benefit elderly patients by allowing their wishes to be known more clearly and to provide guidance to healthcare professionals who are caring for them. Although some formatted AD documents can be limiting, they can also help the patient to understand the ACP process better (Ke et al., 2015). Having an AD can also keep family members and the patient from having conflict about EOL care decisions. ADs can increase a patient's comfort with dying and help in distributing health care resources. They can also relieve moral burdens and feelings of guilt from family members (Ke et al., 2015). The purpose of the project is to see if using

facilitated ACP discussions would encourage patients to complete advance directives, and to see if providers would be willing to do ACP.

Background and Significance

The concept of ADs started with a lawyer, Luis Kutner, and a physician, Dr. William Sackett in the late 1960s-1970s. Living wills first became legally recognized in 1976 in the state of California and then eventually were recognized by all of the states (Hecht & Shiel, 2017). By 1991 hospitals were governed by the Patient Self-Determination Act that mandated all hospitals with Medicare or Medicaid reimbursement ask if patients want to have or already have an AD in place. Today ADs can be in the form of a living will, MPOA, or health care proxy (Hecht & Shiel, 2017).

Since its inception ADs have always been a sensitive topic for patients and providers. Some patients cannot complete an AD because they don't know what an AD is or no one has ever discussed the subject with them. Other times the patient needs more education about AD, or some patients would prefer to have their provider make medical decisions for them (Hinders, 2012; Colville & Kennedy, 2012; De Vleminck et al., 2016; Ke et al., 2015). Providers sometimes do not understand ADs fully, or they have inaccurate beliefs about how proper it is to be discussing ADs with a patient. Providers also identify lack of time as a barrier to discussing ADs since they might have a health system that encourages them to see so many patients in a day (Hinders, 2012; Ke et al., 2015; Lum et al., 2016). Personal reasons that contribute to not completing an AD are a patient's culture or religious beliefs. In some cultures it is forbidden to talk about a diagnosis or prognosis to a patient directly. Korean and Mexican Americans are

more likely to believe that only the family should make decisions about EOL choices (Hinders, 2012; Pecanac et al., 2014).

Other barriers that may keep a patient from completing an AD are lack of understanding the form, or the AD form is standardized and does not allow for personal beliefs to be included. AD documents are written at a higher reading level than some patients may be able to follow. In other instances a patient's health care agent may not be legally recognized. Lastly some patients might not have had a legally acceptable witness when they have done an AD, or there could be inadequate reciprocity. A majority of states have reciprocity laws in place for ADs, but they do not guarantee that a person's AD will be interpreted the same from state to state (Hinders, 2012; Sudore et al., 2014). While ACP may not be able to address all of these listed issues, it has been shown to be effective in increasing the amount of ADs among patients by targeting these exact barriers.

There are a number of ACP programs or tools for patients and providers to use since there is an increasing awareness for patients to have a documented AD. ACP is an emerging process that can include interviewing to help patients reflect on their personal values. It also involves providing education to better explain what an advance directive is, and how it is used. It could also involve patients utilizing an online website to watch interactive videos or provide a place to store their AD online. ACP can allow patients to make more personalized decisions regarding their AD, and they can increase the number of patients taken care of outside of a hospital or intensive care unit (Johnson et al., 2016). Many people express wishes to be able to die at home instead of a hospital, but the reality is that more Americans are dying at a healthcare facility (Hecht & Shiel, 2017). One measure that encourages providers to do ACP is that the Centers for Medicare and Medicaid Services (CMS) started reimbursing healthcare providers

when they discuss ADs with a patient face to face for 30 minutes. According to the current procedural terminology (CPT) code there is no limit to the number of times a patient can be billed for ACP discussion within a certain amount of time (CMS, 2016).

Many of the studies reviewed for this paper have said that ACP includes the completion of an AD, deciding on a MPOA, and discussing one's personal values and preferences for their EOL cares (Bischoff, Sudore, Miao, Boscardin, & Smith, 2013; Howard et al., 2016). One study found that over 50% of the study subjects who died from 1997-2006 completed ACP documents, and the number of subjects completing ADs increased to 72% in 2007 (Bischoff et al., 2013). The use of ACP has been shown to have grown within that 10 year period. Most people who do ACP prefer to engage in comfort measures instead of using more extensive interventions (Bischoff et al., 2013). ACP can help ensure that a patient's health care is in compliance with their EOL wishes. Various types of ACP described in literature are the *Conversation Project, Five Wishes®, PREPARE ™, MyDirectives®, and Respecting Choices®* (The Conversation Project 2017; Aging with Dignity, 2016; The Reagents of the University of California, 2012; ADVault, Inc., 2017; & Gundersen Health System, 2017).

The *Respecting Choices®* program is a well-known program that provides materials about ADs, training of AD facilitators, and standardizing policies for maintaining documenting, and using ADs. The program is meant to be applied in a community setting. One study that used the *Respecting Choices®* program demonstrated how it helped increase AD completion from 25.8% to 38.4% in a racially and ethnically diverse community (Pecanac et al., 2014). The researchers chose to study a diverse community because the program was previously studied in a community where 95% of the population was white. Having an organized strategy or program to approach a

patient with is more effective than giving them a copy of an AD form to return and sign on a future visit (Sudore et al., 2014).

The *Conversation Project* offers assistance with starting a 4 step discussion about choosing a healthcare proxy and completing an AD. They provide free starter kits online in nine different languages open for any individual to use, and they also have a starter kit specifically for families or loved ones of patients who have Alzheimer's disease or another type of dementia (The Conversation Project, 2017). Information in the starter kit acknowledged that there is no guide available for ACP that can answer all of the questions a person might have related to ADs (*The Conversation Project* & the Institute for Healthcare Improvement, 2016).

The *Five Wishes*® form is the most used AD form within the U.S. (Aging with Dignity, 2016), but it does not provide substantial education or a structured approach for patients to follow (Butler et al., 2014). The form can be easily accessed online, but costs $5.00 for one form to be stored online for a year. The *Five Wishes*® pertains to naming a health care agent, the type of medical treatment a person does or does not want, what options a person could use to be comfortable, how a person wants other people to treat them, and what a person wants their loved ones to know (Aging with Dignity, 2011). The *Five Wishes*® form can be beneficial for helping patients with ACP because it is recognizable, but it is also limited in the number of options a person can choose since it mainly uses a checkbox and "yes" or "no" answering system.

Another ACP resource is the *PREPARE™* interactive website. It has been rated as a medium to high level resource for patients using the criteria developed by the International Patient Decision Aids Standards (IPDAS) (Butler et al., 2014). The *PREPARE™* program has five steps that can help a person start an action plan for completing an AD. The five steps are: choosing a medical decision maker, deciding what is most important in life, choosing how much

flexibility to give to your decision maker, telling others about your wishes, and asking doctors the right question. The *PREPARE*^{TM} website offers educational information in English and Spanish (The Regents of the University of California, 2012). The website is straightforward and encourages family members to view the information with the patient. *PREPARE*^{TMr} also states at the bottom of the page that the program should not be mistaken for being a legal AD (The Regents of the University of California, 2012). Using the *PREPARE*^{TM} program significantly increases the chance that a patient would engage in ACP (Sudore et al., 2014). The program is appealing since it has situational videos and questions that help guide the patient.

It is valuable for patients to discuss ACP among a greater number of people such as other patients or multiple care team members (Lum et al., 2016 & Clark et al., 2015). Cancer patients who saw social workers or nurse practitioners (NP) as an integral part of their care were more likely to report having a completed AD than patients who did not see a social worker or NP as important in their care (Clark et al., 2015).

Nurses are comfortable about speaking to patients about EOL decisions. There are 140,000 practicing NPs in the U.S., and they do more than 600 million office visits per year in family and adult practices (Hinders, 2012). Nurses can help raise public awareness of ACP, and design educational materials that are relatable to their patients (Ke et al., 2015).

The key to ACP is that ADs should not be viewed as a one-time decision. Providers realize that ACP needs input and collaboration from patients and their family members. It also helps a patient to prepare for death by letting them know what options are available such as palliative or hospice care (De Vleminck et al., 2016). ACP helps patients to contemplate care goals and treatment decisions. Even though providers are more apt to initiate ACP with patients who have a chronic or progressive illness in a hospital or nursing home setting, ACP should be

started more often within a primary care setting. It can give patients more time to thoughtfully consider their preferences for EOL compared to if they were rushing into a decision after being diagnosed with a critical diagnosis (Hinderer & Lee, 2013).

Reports from one previous study found that primary care providers (PCPs) initiated cardiopulmonary resuscitation (CPR) discussions with terminally ill or those who had a potentially fatal illness 69% of the time while 12% of PCPs and subspecialist physicians said they never initiated CPR discussions with elderly patients (Glaudemans, van Charante, & Willems, 2014). There is room for improvement on the providers' part to help patients with ACP just by starting a conversation.

Providers can direct individual patients to use a specific program or online tool to assist with ACP. Decision aids can promote main points of ACP by helping patients learn about anticipated conditions, and options on the type of healthcare they could have. After being provided with this information patients could ultimately make decisions about their future care, and save it orally or in writing (Butler et al., 2014).

MyDirectives® can help patients direct their ACP and help them form a more personalized AD while allowing them to also make changes more readily since it is an online platform (Fine et al., 2016). A benefit of using an online medium to do ACP is it can stimulate younger adults to participate in ACP. Once patients have knowledge of treatment options they are more likely to be open to them.

Evaluating evidence regarding ACP is not always quantitatively based on the numbers of completed ADs. One study interviewed nurses and how they felt about their experiences of using ACP discussion in their clinical practice (Colville & Kennedy, 2012). The three themes that resulted from the study were bringing it all together, talking about ACP, and planning future

care. It's important to approach the topic of ACP with an organized, but flexible mindset. Not every patient will have the same desires for their EOL care, and they could be influenced by their cultural or religious views. ACP is more likely to be successful when exercised through multiple visits.

Internal Evidence

Presently in a primary care setting in the southwestern U.S. it was acknowledged that there were less than 20% of patients with an AD on file. Providers at this location attribute challenges to lack of time, little patient interest, inadequate resources, and not having a family member present at the time of the appointment. The providers are interested in increasing the AD completion rate and would like to implement an organized ACP in their practice. This led to the applicable PICOT question; in older adult patients within a primary care setting (P), does using healthcare provider initiated ACP (I) compared to the standard AD completion process (C) affect the initiation of the ACP and AD completion rates (O) within three months (T)?

Search Strategy

Databases searched for the literature review included Cumulative Index of Nursing and Allied Health Literature (CINAHL), The Cochrane Library, and PubMed. Keywords included; *advance care planning, advance care planning comprehensive, advance care planning complete, advance care planning and advance directive, advance care planning program, advance care planning tools, advance care planning and nurse practitioner, advance care planning effect on ADs, advance care planning intervention, and advance care planning in elderly*. Initially *advance care planning* yielded 540 references in CINAHL (Appendix A) and 3,574 in PubMed (Appendix B) and 439 in The Cochrane Library (Appendix C) and *advance care planning and directive* yielded 118 references in CINAHL and 47 in The Cochrane Library.

Limits

With limits set to full text available, English-language studies, humans, and age 18 years and older and combining these search terms with different programs or planning tools the searches resulted in an estimated yield of 400 articles. Reviewed the titles and the abstracts and eliminated studies that were done on specific populations such as patients with end stage renal disease, patients with human immune deficiency virus, or patients who were living in an assisted living facility. Only 125 articles remained after applying those criteria. Articles were narrowed down to the last 10 by excluding those that studied ACP and its relationship to euthanasia in detail, articles that were editorials, or articles that studied ACP and terminally ill patients only. Ancestry search retrieved 13 articles for further review and 2 were kept in the final analysis. A couple studies were systemic reviews, two had cohort designs, one article used a small-scale exploratory design, another had semi-structured interviews, one was descriptive, one group of researchers obtained data through documentation from an electronic program, one study used a constant comparative method, two chosen articles were pilot studies, and there was a pilot study that used a quasi-experimental design.

Inclusion and Exclusion Data

Inclusion data were studies published from January 2012 until the present. Studies from other countries besides the U.S. were included. Exclusion data were doctoral dissertations, and studies based on vignettes. Articles based on study protocol, research protocol, or study design were also excluded. After a comprehensive search for literature related to ACP twelve studies have been chosen for inclusion. The twelve studies that were chosen for inclusion met the criteria and were applicable to the stated PICOT question.

Critical Appraisal and Synthesis of Evidence

Overall, the twelve studies reviewed were of good quality. The level of evidence ranges from I-VI with the majority of evidence falling in the V and VI categories (Melnyk, & Fineout-Overholt, 2015). The sample demographics display modest homogeneity (appendix D, Evaluation table). Inclusion criteria for most of the studies was subjects had be English-speaking. The sample sizes of each study ranged from 6-4,394 participants. Eight out of the twelve studies were completed within the U.S., while other studies were completed in Scotland, Belgium, the Netherlands, and Taiwan (appendix E). There was a high degree of heterogeneity in the type of measurements that were used in the studies. One study used the evidence based EOL health services quality metrics while another used a more familiar form such as the Likert scale. Methods of data analysis used were descriptive statistics, logistic regression, paired t-tests, regression of the binary, Wilcoxin signed rank sum, McNemar's test for dichotomous variables, qualitative analysis and International Patient Decision Aids Standards (IPDAS).

Five out of the twelve studies did not have conceptual framework clearly identified in the article. Three of the studies had information bias since the researchers recorded information from other patient records. The number of participants who agreed to the study were accounted for. Researchers clearly explained reasons as to why some participants chose to withdraw. The degree of heterogeneity was moderate among the type of ACP intervention that was used. Some researchers did a multi team approach with facilitators from different background professions, others studied the effectiveness of an online program for ACP. There was one study that was testing a website that researchers created themselves (Sudore et al., 2014). Almost half of the studies showed there was a statistical increase in ACP discussion after a specific intervention.

The remaining studies demonstrated increased patient satisfaction and higher likelihood of completing an AD when ACP was implemented.

Conclusions from the Evidence

The evidence suggests that the use of ACP can increase the likelihood of a patient completing an AD. Much of the evidence also demonstrates that patients increase participation in ACP when they have a formal organized discussion about it. Using an online decision aid for ACP can allow a patient to personalize their AD more compared to using a traditional paper-formatted AD. The success of using a decision aid depends on the specific stage of life a patient is in since some are directed towards patients with an advanced health condition while others are meant more for the general population. Most of the research related to ACP assessed the use of an intervention on elderly populations who have a chronic or terminal illness, but many of the researchers suggested that there needs to be further research done on ACP use in the generally healthy older adult population.

Contribution of Theory to Utility of the Evidence

Nola Pender's health promotion model can be applied patients who participate in ACP (Appendix F). ACP applies to patients who are well, those who have chronic conditions, and those who have a terminal illness. According to the model health promotion a patient is multi-dimensional as they interact with their environment. Each patient has personal biological factors, psychological factors, and socio cultural factors that can affect their behavioral outcome. A patient's interpersonal and situational influences can affect the way they view ACP. There are perceived benefits and barriers to every action a person makes. ACP can help a patient commit to a plan of action of completing an AD (Current nursing, 2011). Nola Pender's model helped

guide the ACP intervention because dialogue between the student and participant helped change the participants' behavioral outcome.

The student was able to ask participants if they knew what ACP or ADs were. Most of the participants were familiar with ADs, but they were not as aware of ACP. Participants were asked why they were interested in completing an AD, and some said it was because of a family situation where one of their family members became seriously ill. Another participant mentioned they wanted to have an AD because they had a major change in their health condition. Through Nola Pender's model the student was able to recognize these were examples of interpersonal and situational influences that affected their willingness to commit to the health promoting behavior of completing an AD. The health promotion model helped the student use ACP discussions as a method to assist participants in identifying that these influences in their life helped them to make the decision to complete ADs.

The Rosswurm and Larrabee Model of EBP

The Rosswurm and Larrabee model of EBP was chosen to guide this project (Appendix G). The model is made up of the six phases of assess, link, synthesize, design, implement and evaluate, and integrate and maintain (Pipe et al., 2005). The need for more documented ADs was assessed through gaining internal evidence from a local primary care site, and reviewing how often the providers asked patients about ADs. External evidence also revealed that a low percentage of Americans have a completed AD. The first phase of the EBP model demonstrated there was a gap in care related to ADs and elderly Americans. There is a need for more completed ADs within the primary care setting. The stakeholders involved in the project would be the patients, family members or friends, the providers, and the clinic in which they participate in or other healthcare facility they may utilize in the future.

Research shows that initiating discussion with the patient about ACP can increase their likelihood of doing ACP, which can lead to completion on ADs and choosing a MPOA. Interventions for the project would involve scheduling multiple appointments for the sole purpose of having ACP discussions and giving participants the option of completing an AD in the form of a living will and MPOA. Previous studies have shown that providers do not initiate discussion about AD unless a patient is terminally ill, but this process should be changed to help patients be more prepared for the future. A possible intervention for the physicians at the local practice could be providing and educational session about the benefits ACP and ADs.

In the "synthesize' phase of the EBP model the majority of research indicated that ACP can increase the chances that at patient will complete an AD. Using an online decision aid can be helpful in increasing the number of completed ADs. Previous studies suggested that further studies need to be done on evaluating the use of ACP with patients who do not have a chronic or terminal illness. Overall, the evidence supports the use of ACP in primary care sites because it could educate patients about the purpose and need for a completed AD. For the design phase of the EBP model, the project intervention was formulated from the research. Patient participants could schedule one or more 30-minute appointments to have ACP discussions with the student at the project site. The first appointment would also include having the patients do a pre-intervention ACP survey. During the visit the student would give the participant the option of completing the state of Arizona (AZ) Life Care Planning Packet and explain any material that might be confusing. The student would then ask if the participant does complete the form to bring it with them for the second appointment. The participant could have the form signed by the receptionist at the site or notarized to make the ADs official. The participants would then complete a post-intervention ACP survey. The survey would help to show if there was any

change in the participant's readiness to talk about ADs or a MPOA, or if there was any change in their readiness to sign documents about ADs or appointing a MPOA. The ACP survey would be used with the permission of Dr.Sudore (2016) who developed a shortened version.

The physicians would be given a brief 10-15 minute power point presentation intervention of explaining the benefits of ACP and ADs. They would also complete and pre and post-intervention questionnaire that would ask if they had ever used ACP, or ask if they initiate discussion about ADs. Another action to help determine part of the project outcome would be completing chart audits. These would help detect if there were any changes in the amount of documented ADs within the practice site. The student would be to do a chart audit of patients who had a completed AD in the electronic health record (EHR) before the start of the project, and do a chart audit at the end of the project and compare the numbers. Chart audits can help with quality improvement and help practices to see if there is an improvement from an intervention (Agency for Healthcare Research and Quality, 2013).

Based on the 5th phase of the EBP model the student implemented the project interventions of the two ACP discussions and the physician power point presentation. The student also completed a 200 patient chart audit of the local practice site's EHR to record who had an AD on file before the project and who had a documented AD after the project was completed. After completing the interventions and utilizing statistics, the student was able to evaluate that the project did help participants to complete ADs. There was no marked change in the physician questionnaire answers, although they did support the use of ACP to increase AD completion. The student recommended adopting part of the project intervention in order to maintain the change of using ACP discussions at the practice site.

This led to the 6th phase of the EBP model of integrate and maintain. The student gave a presentation to the physicians at the project site disseminating the final project results, and how ACP was successful in increasing the number of completed ADs among the patient participants. The student suggested including a question about whether or not an older patient had an AD with their annual wellness checkup. In order to help with the barrier of lack of time for doing ACP patients should schedule a separate appointment for ACP discussions only. A subsequent project could be developed in the future to do more chart audits to see if more patients were completing ADs over time.

Project Methods

The student obtained approval from university's institutional review board to implement the project on September 3, 2017. Participants were recruited through phone calls and in-person attempts. Each project participant signed an informed consent before starting, and was aware that they could quit the project at any time. There were no charges to the participant, but if they were over 65 years old, providers could be reimbursed by CMS for doing the ACP discussions in person. The setting for the project was at a local primary care practice site, and participants must be 60 years or older and speak English. Patients who were diagnosed with Alzheimer's disease or dementia were excluded from the project. Project participants did one to two ACP discussions that were 30 minutes long. They were given a pre and post-intervention ACP survey. The pre-intervention survey also included six demographic questions asking about a participant's age, gender, ethnicity, educational level, relationship status, and presence of a chronic health condition. The shortened ACP engagement survey was used with permission from Dr. Sudore (2016). The survey is an internally consistent and valid measurement tool.

The power point presentation was developed by the student giving information about ADs and ACP benefits. The physician questionnaire given before and after the intervention was also developed by the student, and validated by two professors who work at Arizona State University. The participants and physicians filled out the printed survey and questionnaire by hand. The student did a 200 patient chart audit before the start of the project, and at the end of the project by reviewing charts in the EHR. Patients who had not visited the practice within the last two years were excluded from the audit. All of the data from the surveys, questionnaires, and chart audits were entered into the Statistical Package for the Social Sciences (SPSS) computer program. An independent-samples t test and a Wilcoxin test were used to analyze the data. The proposed budget for the project was $30-$50, which was for paper, manila envelopes, and recruitment flyers.

Outcomes

Descriptive and inferential statistics were used to analyze demographics, patient survey responses, and chart audits. The critical value was set to $p = .10$, $p < .10$. The average age (standard deviation) of the patient participant sample was 64.2 (SD= 4.09). 3 participants (60%) were female and 2 participants (40%) were male. Most of the sample, 3 (60%) reported having a chronic health condition and 2 (40%) reported having no chronic health condition. All five of the patient participants were Caucasian. One participant (20%) had a master's degree, two participants (40%) had some high school no diploma, and two other participants (40%) had an associate's degrees. The average age of the chart review sample was 72.77(SD=9.47) and the ages ranged from 60 to 100 years of age.

An independent-samples t test comparing the pre-project chart audit group average to the post-project chart audit found a difference that was advancing towards significance. (t (277)=

-1.65, p<.10). The average of the post-project chart audit group was higher at .03 (SD=.157) than the pre-project chart audit group average of .01 (SD=.071). A Wilcoxin test examined the results of the 5 participant's pre-intervention survey and the post-intervention survey. A significant difference was found in the results (Z= -1.84, p<.10). There was a significant difference in the results from the pre-intervention to the post-intervention survey. A Wilcoxin test examined the results between the pre-intervention and post-intervention physician questionnaires. No significant difference was found in the results (Z= -1.00 , p> .10.). Pre-intervention physician questionnaire results were not significantly different from post-intervention questionnaire results.

The results from the project revealed that participants were significantly more prepared to talk to their physician or decision maker about the kind of care they would want at the end of their life. The participants were also more significantly prepared to sign official AD and MPOA after receiving the ACP intervention. There was an increase in the amount of completed ADs from the pre-project chart audits compared to the post-project chart audits that was nearing significance. There were no significant differences between the pre and post-intervention physician questionnaire responses. The results of this project showed that ACP does increase the likelihood that a patient will complete an AD or MPOA.

Discussion

The impact of this project for the patients was positive. The ACP discussions were successful in helping patients to feel more prepared to complete or talk about ADs in general. Patients felt that when they made a second appointment this encouraged them to complete the AD by the scheduled date. The project had a smaller impact on the providers of the local practice site. They were supportive in using intervention of ACP, but time was still a major

barrier to using the intervention. The project impacted the health system by giving it more access to a patient's completed AD. One participant said they were planning on having a surgery, and they were able to bring the completed AD form into the hospital for them to keep on record in case anything happened. The project did not have any impact on policy as the project site was a smaller practice with two providers. There was no current policy about ADs or ACP within the practice, and the providers did not state they would make any policy changes due to the project.

ACP discussions can be continued for future practice, but patients and providers would have more time if there were scheduled appointments specifically for ACP discussions. CMS encourages providers to do ACP with patients by reimbursing them if the visit is 30 minutes or longer and is done in person at the office. Documentation of patients who have completed AD could be updated regularly by asking if older patients have ADs or an MPOA when they have an annual exam to add it to EHR if they do. A strength of the project was that the data collection method was inexpensive. Limitations of the project were the small sample size and the ethnicity of the project participants. The sample size and common ethnicity of all the project participants make it difficult to apply the project outcomes to the general population.

Conclusion

In summation, the project was able to show that using ACP does help improve completion rates of ADs in older patients within a primary care site. ACP discussions are a cost effective intervention that can help patients to form an AD. Providers still face time constraints when considering implementation of ACP, but it is a worthwhile endeavor that should be used more often.

References

ADVault, Inc. (2017). *MyDirectives* ®Retrieved April 12, 2017 from https://www.mydirectives.com/

Agency for Healthcare Research and Quality. (2013, May). Collecting data with chart audits. In *Practice Facilitation Handbook* (Module 8). Retrieved from https://www.ahrq.gov/professionals/prevention-chronic-care/improve/system/pfhandbook/mod8.html

Aging with Dignity. (2011). Five *wishes* [PDF document]. Retrieved from https://agingwithdignity.org/docs/default-source/default-document-library/product-samples/fwsample.pdf?sfvrsn=2

Aging with Dignity. (2016). Five *wishes online.* Retrieved April 12, 2017 from https://www.agingwithdignity.org/five-wishes/five-wishes-online

Bischoff, K. E., Sudore, R., Miao, Y., Boscardin, W. J., & Smith, A. K. (2013). Advance care planning and the quality of end-of-life care in older adults. *Journal of the American Geriatrics Society, 61*(2), 209-214. doi:10.1111/jgs.12105

Butler, M., Ratner, E., McCreedy, E., Shippee, N., & Kane, R., L. (2014). Decision aids for advance care planning: An overview of the state of the science. *Annals of Internal Medicine, 161*(6), 408-417. doi:10.7326/M14-0644

Centers for Medicare and Medicaid Services. (2016, August). *Advance care planning* [PDF document]. Retrieved from https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/AdvanceCarePlanning.pdf

Clark, M. A., Ott, M., Rogers, M. L., Politi, M. C., Miller, S. C., Moynihan, L., . . . Dizon, D. (2015). Advance care planning as a shared endeavor: Completion of ACP documents in a

multidisciplinary cancer program. *Psycho Oncology, 26*(1), 67-73. doi:10.1002/pon.4010

Colville, E., & Kennedy, C. (2012). ACP conversations in clinical practice: impact of an education initiative. *British Journal of Community Nursing, 17*(5), 230-234.

Current nursing. (2011, April 15). *Health promotion model.* Retrieved from http://currentnursing.com/nursing_theory/health_promotion_model.html

Davidson, R., Banister, E., & de Vries, K. (2013). Primary healthcare NZ nurses' experiences of Advance directives: Understanding their potential role. .*Nursing Praxis in New Zealand*, *29*(2), 26-33.

De Vleminck, A., Pardon, K., Beernaert, K., Houttekier, D., Vander Stichele, R., & Deliens, L. (2016). How do general practitioners conceptualise advance care planning in their practice? A qualitative study. *Plos One, 11*(4), 1-12.

Fine, R. L., Yang, Z., Spivey, C., Boardman, B., & Courtney, M. (2016). Early experience with digital advance care planning and directives, a novel consumer-driven program. *Proceedings (Baylor University. Medical Center), 29*(3), 263.

Fulmer, T. (2016). New grants totaling $5.5 million begin charting a course to age-friendly health systems. Retrieved from http://www.johnahartford.org/blog/view/new-grants-totaling-5.5-million-begin-charting-a-course-to-age-friendly-hea/

Glaudemans, J. J., Moll van Charante, E. P., & Willems, D. L. (2015). Advance care planning in primary care, only for severely ill patients? A structured review. *Family Practice, 2*(1), 16-26. doi:10.1093/fampra/cmu074

Gonzalo, A. (2011). Nola Pender: The health promotion model [jpg image]. Retrieved from http://nursingtheories.weebly.com/nola-pender.html

Gunderson Health System. (2017). *Respecting choices®: Person-centered care*. Retrieved April

12, 2017 from http://www.gundersenhealth.org/respecting-choices/

Hecht, M.M., & Shiel, Jr,. W. C. (2017). *Advance Medical Directives. (Living Will, Power of Attorney, and Health Care Proxy)*. Retrieved from http://www.medicinenet.com/script/main/art.asp?articlekey=7814

Hickman, R. L., & Pinto, M. D. (2014). Advance directives lessen the decisional burden of surrogate decision-making for the chronically critically ill. *Journal of Clinical Nursing, 23*(5/6), 756-765. doi:10.1111/jocn.12427

Hinderer, K. A., & Lee, M. C. (2014). Assessing a nurse-led advance directive and advance care planning seminar. *Applied Nursing Research*, 27(1), 84-86. doi:10.1016/j.apnr.2013.10.004

Hinders, D. (2012). Advance directives: Limitations to completion. *The American Journal of Hospice & Palliative Care, 29*(4), 286-289. doi:http://dx.doi.org.ezproxy1.lib.asu.edu/10.1177/1049909111419293

Johnson, S., Clayton, J., Butow, P.N., Silvester, W., Detering, K., Hall, J. . .Tattersall, M.H.N. (2016). Advance care planning in patients with incurable cancer: study protocol for a randomised controlled trial. *BMJ Open*, 6(12), 1-11. doi: 10.1136/bmjopen-2016-012387

Ke, L., Huang, X., O'Connor, M., & Lee, S. (2015). Nurses' views regarding implementing advance care planning for older people: a systematic review and synthesis of qualitative studies. *Journal of Clinical Nursing, 24*(15/16), 2057-2073. doi:10.1111/jocn.12853

Lum, H. D., Jones, J., Matlock, D. D., Glasgow, R. E., Lobo, I., Levy, C. R., & ... Kutner, J. S. (2016). Advance Care Planning Meets Group Medical Visits: The Feasibility of Promoting Conversations. *Annals of Family Medicine, 14*(2), 125-132. doi:10.1370/afm.1906

Melnyk, B.M., & Fineout-Overholt, E. (2015). *Evidence-based Practice in Nursing and Healthcare: A Guide to Best Practice* (3rd ed.). Lippincott, Williams & Wilkins.

Pecanac, K. E., Repenshek, M. F., Tennenbaum, D., & Hammes, B. J. (2014). Respecting Choices® and Advance Directives in a Diverse Community. *Journal of Palliative Medicine,17*(3), 282-287. doi:10.1089/jpm.2013.0047

Pipe, T. B., Wellik, K. E., Buchda, V. L., Hansen, C. M., & Martyn, D. R. (2005). Implementing evidence-based nursing practice. *Urol Nurse, 25*(5), 365-370. Retrieved April 29. 2017 from http://www.medscape.com/viewarticle/514532_5

Rietjens, J. C., Korfage, I. J., Dunleavy, L., Preston, N. J., Jabbarian, L. J., Christensen, C. A., &, Mimić, A. (2016). Advance care planning--a multi-centre cluster randomised clinical trial: the research protocol of the ACTION study. *BMC Cancer, 16,* 1-8. doi:10.1186/s12885-016-2298-x

Spoelhof, G. D., & Elliott, B. (2012). Implementing advance directives in office practice. *American Family Physician, 85*(5), 461.

Sudore, R. L., Knight, S. J., McMahan, R. D., Feuz, M., Farrell, D., Miao, Y., & Barnes, D. E. (2014). A novel website to prepare diverse older adults for decision making and advance care planning: A pilot study. *Journal of Pain and Symptom Management, 47*(4), 674-686. doi:10.1016/j.jpainsymman.2013.05.023

The Conversation Project. (2017). *Starter kits.* Retrieved from http://theconversationproject.org/starter-kits/

The Conversation Project & the Institute for Healthcare Improvement. (2016). *Your*

conversation starter kit [PDF document]. Retrieved from http://theconversationproject.org/wp-content/uploads/2017/02/ConversationProject-ConvoStarterKit-English.pdf

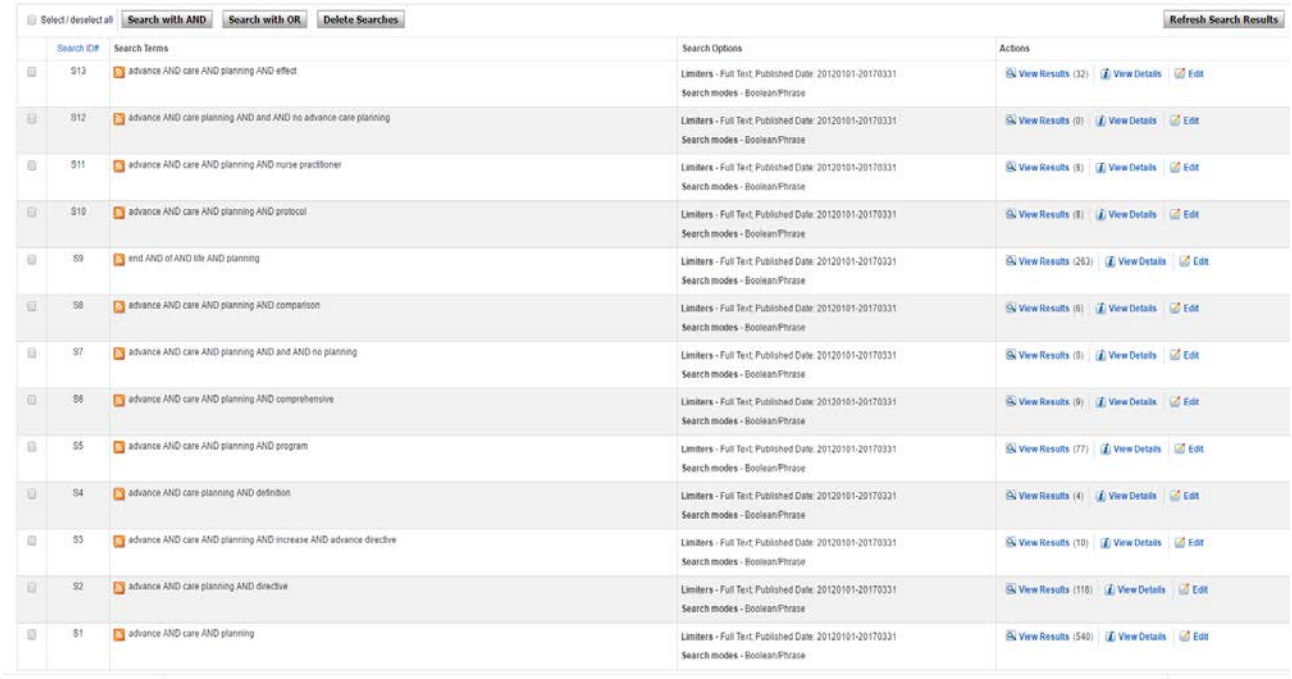
The Regents of the University of California. (2012). *PREPARE™ for your care.* Retrieved April 12, 2017 from https://prepare.prepareforyourcare.org/page/0-1-1

U.S. Department of Health and Human Sciences. (2016, May, 24). *Aging statistics.* Retrieved from http://www.aoa.acl.gov/aging_statistics/index.aspx

Appendix A

Search Strategy 1

CINAHL



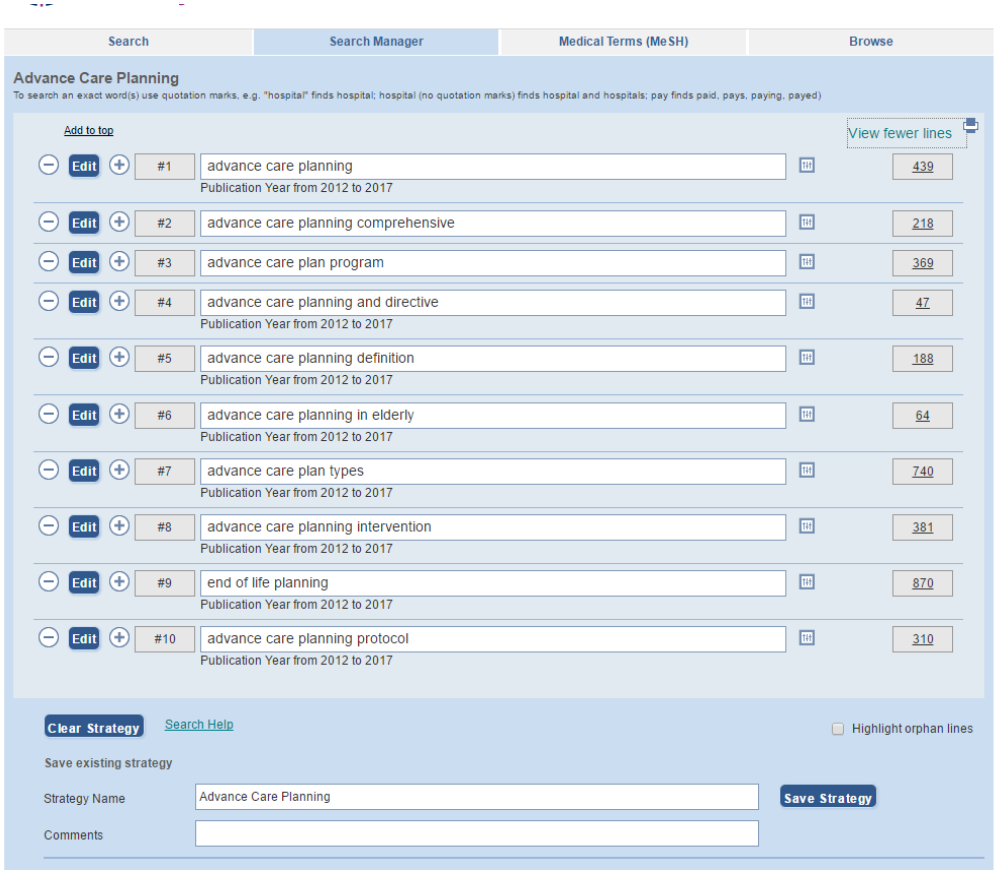
Select / deselect all | Search with AND | Search with OR | Delete Searches | Refresh Search Results

	Search ID#	Search Terms	Search Options	Actions
	S13	advance AND care AND planning AND effect	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (32) | View Details | Edit
	S12	advance AND care planning AND and AND no advance care planning	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (0) | View Details | Edit
	S11	advance AND care AND planning AND nurse practitioner	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (8) | View Details | Edit
	S10	advance AND care AND planning AND protocol	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (8) | View Details | Edit
	S9	end AND of AND life AND planning	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (263) | View Details | Edit
	S8	advance AND care AND planning AND comparison	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (6) | View Details | Edit
	S7	advance AND care AND planning AND and AND no planning	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (0) | View Details | Edit
	S6	advance AND care AND planning AND comprehensive	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (9) | View Details | Edit
	S5	advance AND care AND planning AND program	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (77) | View Details | Edit
	S4	advance AND care planning AND definition	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (4) | View Details | Edit
	S3	advance AND care AND planning AND increase AND advance directive	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (10) | View Details | Edit
	S2	advance AND care planning AND directive	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (116) | View Details | Edit
	S1	advance AND care AND planning	Limiters - Full Text; Published Date: 20120101-20170331 Search modes - Boolean/Phrase	View Results (540) | View Details | Edit

Appendix B

Search Strategy 2

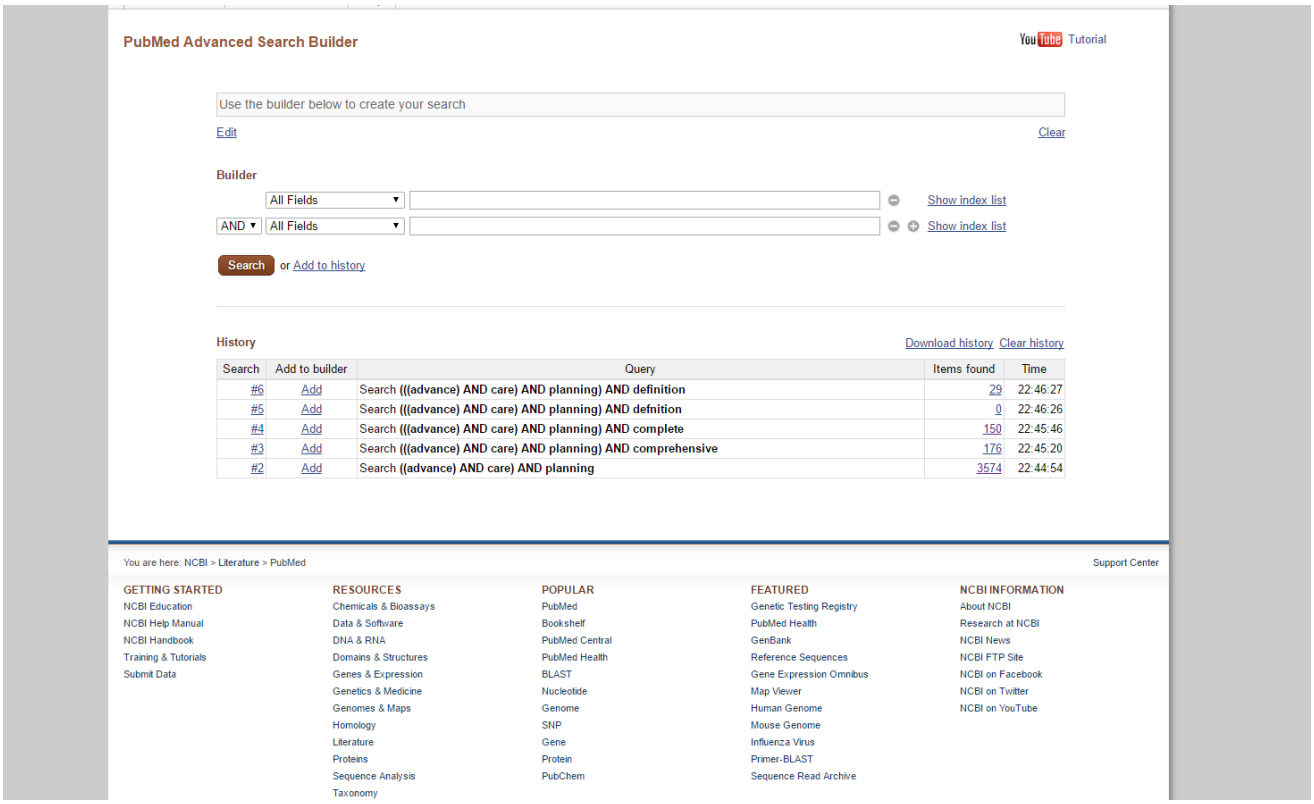
The Cochrane Library



Appendix C

Search Strategy 3

PubMed



Appendix D

Table1

Evaluation Table

Citation	**Conceptual Framework**	**Design/Method**	**Sample/Settings**	**Major Variables & Definitions**	**Measurements**	**Analysis**	**Findings**	**Decisions for use**
Bischoff et al. (2014). Advance care planning and the quality of end-of-life care in older adults Funded by National Center for Research Resources and the Greenwall Foundation No conflicts of interest USA	Quality of Life Theory	**Design:** OCS Purpose: To determine whether ACP influences quality of EOL care	N=4,394 decedent subjects. Mean age at death 82.6 years old. 55% were women **Inclusion Criteria**: decedents from Health and Retirement Study, Americans ages 65 years or older who died btwn 1993-2007 **Exclusions data**: People who were not enrolled in a Medicare fee for service plan during the last month of their life, people whose exit interviews did not contain complete information regarding AD completion or DPOA, those who did not have an exit interview completed by proxy after death	IV: Those who have had ACP DV: quality of EOL cares DV2:Likelihood of dying in hospital DV3: Likelihood of spending > than 2 weeks in the hospital during last month of life DV4: likelihood of enrolling in hospice DV5: Likelihood to be admitted to hospice 3 or fewer days DV6: Likelihood of more than 1 visit to ED in	Evidence based EOL health services quality metrics	Multivariable Poisson regressions. StataCorp and the SAS	IV: 3,230 1.164 had no ACP DV2: 49% less likely to die in the hospital DV3:10.3% DV4: 33.3% DV5: 71.9% DV6: 14% DV7: 23.6% 95% CI P< .01	**Level IV according to Melnyk & Fineout-Overholt** **Strengths:** large nationally representative studied, more objective **Weakness:** The use of the healthcare proxy report, the AD and DPOA documents studied were completed many months before death **Conclusion:** ACP use is associated with less in hospital death and more hospice use

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

			Demographics such as age at death, sex, race, ethnicity, marital status, net worth, and year of death, comorbidities, and functional limitation score, NH resident before the last Month of life, hx of CA, hx of HTN, hx of DM, hx of lung disease, hx of heart disease, cognitive impairment, functional limitation score, months between decedents' death and proxy interview Male=45.3% Female=54.7% 86.3% were white, 8.9% were black, 3.7% Hispanic, 1.1% other. 62.2% had hx of HTN 50.6% had hx of heart disease	the last month of life DV7: Likelihood of being admitted to ICU Also included all of the demographics that were listed in the IV				

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Citation	Conceptual Framework	Design/Method	Sample/Settings	Major Variables & Definitions	Measurements	Analysis	Findings	Decisions for use
Butler et al., 2014 Decision aids for ACP: An overview of the state of the science Funded by Minnesota Evidence based practice center Commissioned as a technical brief by the Agency for Healthcare Research and Quality (AHRQ)Effective Health Care Program Did not specifically list if there was conflict of interest Minnesota	Theory of technological competency as caring	**Design:** Systemic Review Purpose: To give an overview of ACP decision aids for adults. Describes available tools, identified framework for future research studies, and summarizes published studies that used a decision aid	N= 16 published studies. 9 out 16 were RCT and 7 were case series **Inclusion criteria:** English-language studies of any sample size and design that assessed the effect of a decision aid on outcomes related to ACP **Exclusion criteria**: Studies that involved children or ACP for psychiatric care	Year the study was done, type of population, type of decision aid, and the format of the decision aid. Satisfaction with or perceived helpfulness of the decision aid, clarity of pt preferences for comfort care, knowledge of AD or disease processes, preference stability over time, reduction of decisional conflict, patient-proxy concordance, Pt-physician concordance, Pt hope, pt stress or anxiety, AD documentation/palliative care consultation	Systematically searched MEDLINE, the Cochrane library, PsycINFO, and CINAHL from January 1990-May 2014. Also searched the Ottawa Hospital research Institute's Decision Aid Library Inventory and websites of professional organizations. Also used interviews of key informants	International Patient Decision Aids Standards (IPDAS) used 15 different criteria based on index decision, content, development, and, effectiveness	General decision aids did not has as much information on decisions compared to condition-specific aids. Less likely to help pt's make a decision with the exclusion of the PREPARE program	**Level I evidence Strengths**: Provides a helpful summary of various decision aids for ACP that are available. **Weaknesses:** ACP decision aids do not have systems in place to encourage routine reconsideration of pt's preferences **Conclusion:** Decision aids can help pts but there needs to be more research of the effectiveness of the aids

Citation	Conceptual Framework	Design/Method	Sample/Settings	Major Variables & Definitions	Measurements	Analysis	Findings	Decisions for use

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Clark et al. (2015). Advance care planning as a shared endeavor: Completion of ACP documents in a multidisciplinary cancer program Funded by NCI No conflict of Interest USA	Knight and Emanuel's reintegration model	**Design:** Qualitative Method: Semi-structured interviews Purpose: Examine the roles of oncology providers in ACP delivery within a multidisciplinary cancer program.	N=200 women 181 pts out of 20 were white, mean age 60 years old **Inclusion criteria** women who had recurrent of metastatic breast or gynecological CA for at least three months **Exclusion criteria:** Women who were not interested, women who were uncomfortable with the topic, and those who were too busy Demographic variables included: age, Hispanic ethnicity, race, education, employment, financial situation, cancer type, initial cancer stage, number of hospitalizations in the past year, and number of lines of tx.	IV1: Completing AD IV2: Naming a healthcare POA IV3: Having an EOL conversation IV4: DV1: Not completing AD DV2: Naming a Healthcare POA DV3: Not having EOL conversation with provider	Coding for provider names	Logistic regression, Monte Carlo permutation	IV1: 50% of women completed an AD IV2: 48.5% named a healthcare POA. IV3: 24.5% DV1: 50% DV2: 51.5% DV3: 75.5 96.5% of the women were not Hispanic, 3% of the women were Hispanic, 39.5% had college degree or higher, 32% had high school or less, and 28.5% had some college/technical training or certification	**Level V** **Strengths**: The first study to use a social network approach to understanding the oncology provider's role in ACP **Weakness:** There was no way to confirm the validity of the self-reported or chart-documented ACP behaviors, the sample was not random, women were not randomly assigned to providers **Conclusion:** Women who reported a NP or social worker as being important in their CA care were more likely to self-report having an AD compared to women who did not name those types of providers.

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Citation	Conceptual Framework	Design/Method	Sample/Settings	Major Variables & Definitions	Measurements	Analysis	Findings/Themes	Decisions for use
Colville & Kennedy, (2012). ACP conversations in clinical practice: impact of an education Initiative. Funding from the NHS Education for Scotland No conflict of interest Scotland	Naturalistic paradigm	Design: Exploratory study Method: semi--structure individual interviews Purpose: Follow up a sample of participants after a 10-12 month period in order to see if they had implemented new knowledge and strategies into their practice	N= 6 No inclusion or exclusion criteria included	No variables	Interview of 20-60 minutes that were digitally recorded. The interviewer kept a reflection diary about their thoughts on the interview process	-Validation of analysis with a supervisory team	3 themes emerged from the thematic analysis of interview data -Bringing it all together -Talking about ACP Planning future care	**Level VI** **Strength:** Emphasized the importance of teamwork in ACP **Weakness:** Small number of participants and the data collector facilitated the ACP education. Though the authors note there was a gap of time in btwn completion of the study and the research interviews. **Conclusion:** Knowing the right time and how to address ACP discussion requires education and the development of communication skills. RN's working in acute and community settings need to communicate with each other and other professionals to ensure that all those who are involved in the pt's care understand their wishes.

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Citation	Conceptual Framework	Design/Method	Sample/Settings	Major Variables & Definitions	Measurements	Analysis	Findings	Decisions for use
De Vleminck et al. (2016). How do general practitioners conceptualise advance care planning in Their Practice? A qualitative study Funding from a grant from the Flemish government agency for Innovation by Science and Technology No conflict of interest Belgium	The gold standards framework	Design: Qualitative Method: 5 Focus groups using a constant comparative method Purpose: To explore how general practitioners conceptualize ACP by asking them to describe their experiences with ACP in their practice	N= 36 No specific inclusion or exclusion criteria	ACP: Defined as the process and discussions surrounding the organization of professional care to meet patients' and families' needs such as initiating palliative care or moving to a nursing home	Focus groups were moderated and observed by 2 researchers and lasted on average 1.5 hours. All discussions with recorded with audiotape. Focus groups were given a topic guide made up of open questions and prompts for each question	The qualitative analysis software QSR NVIVO 10 was used	4 themes found were: -Organization of professional care to meet patients' and families' needs -Process of preparing for death: discussing palliative care options -Discussion of care goals and treatment decisions: hospital admissions and CA treatments -The completion of ADs	**Level VI** **Strength:** First qualitative study to look at general practitioners idea of ACP based on their experiences **Weakness**: The participants were not randomly chosen and the study. A majority of the participants were male. **Conclusion:** There needs to be a shared idea and agreement on the purpose and goals of ACP and routine integration of ACP in practice.

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Citation	Conceptual Framework	Design/Method	Sample/Settings	Major Variables & Definitions	Measurements	Analysis	Findings	Decisions for use
Fine et al., 2016 Early experience with digital ACP and directives, a novel consumer-driven program Funding from the University of Texas No conflict of interest listed USA	Jean Watson's Theory of Human Caring	Descriptive study Randomly sampled deidentified users of MyDirectives proportionate to the population of each state. Purpose: To report on the experience of patients with MyDirectives	N=900 random users of MyDirectives. Age range of 18-92 years. 47.1% were older than 50. 84.3% of men and 91% of women self-reported being in good health.	There was no comparison of independent or dependent variable Descriptive variables studied were: life-sustaining treatments, CPR, consulting a palliative care team, where to spend final days, autopsy, and organ and tissue donations	Data from MyDirectives	Descriptive statistics	84% of respondents preferred to stop all life-sustaining tx during final days, 76% wanted to spend finals days at home or in hospice, 3% wanted to die in a hospital. 12% of respondents changed their AD and 75% of the changes were made more than one day after the initial AD formation.	**Level V** **Strengths:** Large sample number that provides informative data. **Weakness:** Low level of evidence that only provided descriptive statistics **Conclusion:** early experience with digital ACP can help pt's complete a more individual AD compared to the paper-based directive

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Citation	Conceptual Framework	Design/Method	Sample/Settings	Major Variables & Definitions	Measurements	Analysis	Findings	Decisions for use
Glaudemans et al. (2015). ACP in primary care, only for severely ill patients? No external funding No conflict of interest The Netherlands	Golds Standards Framework	Design: Systematic Review -Searched MEDLINE, EMBASE, CINAHL, PsychINFO, and the Cochrane library Purpose: To provide a review of actual practice of ACP in primary care	N= 10 articles **Inclusion criteria:** Full-text available in English or Dutch. Included if article focused on ACP and PCPs providing care for pts living in the community or in ALFs. **Exclusion criteria**: If the study included subjects who were under 18 years old or if they took place in a hospital or nursing home setting.	4 aspects were addressed -characteristics of pts with whom ACP is discussed and the content of ACP -The person taking initiative in ACP -Follow up of ACP -Tools, decisions aids, guidelines and protocols used	Quality assessment for qualitative and quantitative questionnaire studies	Initial selection of studies by Glaudemanns and reviewed by Willems	-21% of PCPs did ACP with the general elderly population and 69% of PCPs did ACP with terminal pts -81% of PCPs have ACP discussions with pts with mild to moderate Alzheimer's disease	**Level I** **Strengths:** The first to review the evidence on the actual practice of ACP btwn pts and PCPs. **Weaknesses:** The diversity of the studies hold the researchers back from making definite conclusions om the use of ACP in primary care. **Conclusion:** ACP is not used routinely for elderly who live within a community.

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

								It is used more often for pts with terminal disease, CA, or Alzheimer's disease.

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Citation	Conceptual Framework	Design/Method	Sample/Settings	Major Variables & Definitions	Measurements	Analysis	Findings	Decisions for use
Hinderer & Lee, (2013) Assessing a nurse-led AD and ACP seminar Funding: A grant from the Guerrieri Undergraduate Research Summer Program of Salisbury University No conflict of interest listed Maryland	Health Promotion Model	Design: pilot study that used a quasi-experimental design. Nurse led 1.5 hr educational seminar with lecture, video, step by step overview of five wishes, and time for questions Purpose: Assess the effectiveness of nurse led educational AD seminar that used the Five Wishes on attitudes related to AD, AD completion, and participation in ACP discussion	N=86 Age range was 20-29 and 80-89, 66.3% were female, 88.4 % were Caucasian, 31.4% of participants had college education, 32.6% had graduate education, and 45.3% had a chronic illness **Inclusion criteria**: Community-dwelling, English speaking adults who were ≥ 18 years old No exclusion data included	No independent or dependent variables.	AD Attitude Survey-16 items and uses a 4 point likert scale with 1 meaning strongly disagree and 4 being strongly agree. Researchers developed a demographic instrument and an AD/ACP survey with 9 multiple choice and 3 open ended questions related to AD completion, ACP conversations and seminar effectiveness	SPSS version 16. Paired t-tests to compare differences in the mean AD attitude survey immediately after the intervention and 1 month later, logistic regression to assess if demographic variables predicted AD completion and ACP discussions P=< .05	82.6% reported the seminar was useful. No significant differences in AD Attitude survey scores from immediately after the survey compared to the 1 month post survey. 30.2% had an AD. 68.6% had previous ACP discussion prior to seminar. After seminar 97.7% of the participants were more likely to complete an AD and have ACP discussion.	**Level V** **Strengths:** Unique in that it studied a nurse-lead intervention **Weaknesses:** The study participants were homogenous **Conclusion:** Nurses can use the model from this study to provide community-based education to encourage participants AD completion and ACP discussion.

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Citation	Conceptual Framework	Design/Method	Sample/Settings	Major Variables & Definitions	Measurements	Analysis	Findings/Themes	Decisions for use
Ke et al. (2015). Nurses' views regarding implementing ACP for older people: a systematic review and synthesis of qualitative Studies The authors do not mention if there was funding or not. Does not say there is no conflict of interest Taiwan	Theory of Human Caring	Qualitative meta-synthesis Researchers used CINAHL plus, Medline [EBSCOhost], EMBASE, and Psychinfo Purpose: To explore nurses' points of view on implementing ACP for older people	N=18 articles **Inclusion criteria**: Studies written in English, studies that pertained to nurses' experiences of ACP with older people, qualitative studies or qualitative data in quantitative studies **Exclusion Criteria**: Studies that were no written in English, studies that focused on specific diseases, and studies that focused on tool development or application for utilizing the ACP process		The critical appraisal skills programme checklist	QSR NVivo 10 Software	4 themes -Perceived disadvantages and advantages of ADs -Nurses' responsibility and roles for implementing ACP -Facilitators and barriers to implementing ACP and nurses' needs Recommendations for implementing ACP	**Level V** **Strengths:** It explores a different point of view from nurses rather than patients or providers alone Weaknesses: Some potentially relevant articles could have been missed, there was no limit to care settings, the data was extracted from studies which combined experiences of nurses with other professional, pts, or families Conclusion: Nurses can help develop policies and educational plans for ACP.

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Citation	Conceptual Framework	Design/Method	Sample/Settings	Major Variables & Definitions	Measurements	Analysis	Findings	Decisions for use
Lum et al. (2016). ACP meets group medical visits: The feasibility of promoting conversations. Funding: Multiple sources No conflict of interest Colorado	The RE-AIM framework	A qualitative pilot study demonstration the "Conversation Group Medical Visit" Purpose: To describe the feasibility if the first primary care-based group visit model focused on ACP	N=32 broken down into 5 cohorts Mean age was 79 years old. 59% of participants were female and 72% were white. **Inclusion criteria:** 65 years or older, spoke English, received primary care at Seniors Clinic. Patients could participate if they were referred by their primary care clinician, self-referred from a flyer, or if they were referred by a partner or friend. **No exclusion criteria listed**	No independent or dependent variables. Group medical visit defined as a strategic approach within the patient-centered medical home	Two sessions that last 2 hours. Completed 1 month apart. Facilitator must represent one provider and a social worker. Considered personal values, discussing ACP, choosing surrogate decision, makers, and completing ADs.	Qualitative analysis and a Wilcoxin signed-rank test used to assess change in detailed ACP conversations before and after the group medical visit	Most participants found group visits were better than usual clinic visits for talking about ACP. -Pt's reported an overall increase in ACP conversations with loved ones after the group medical visits.. Themes of pts sharing personal values and challenges related to ACP, pts initiated group discussions of a broad range of ACP topics	**Level V** **Strengths:** This type of approach to ACP discussion within a group can engage pts in detailed conversations about ACP **Weaknesses:** There needs to be enough participants to meet goal of having 7-9 participants in each cohort. **Conclusion:** Group medical visits are feasible for discussing ACP. Need more research on the model.

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Citation	Conceptual Framework	Design/Method	Sample/Settings	Major Variables & Definitions	Measurements	Analysis	Findings	Decisions for use
Pecanac et al. (2014). Respecting choices and AD in a diverse community. One of the authors is an employee of the Gundersen Health System which owns the copyrighted materials known as Respecting Choices. The author is entitled to a small royalty when net profit is made on the materials. Funding from the University of Wisconsin **USA**	A faith-based promotion model	Retrospective chart review Purpose: To determine whether Respecting Choices would improve AD in a racially and ethnically diverse community	N=732 **Inclusion criteria:** decedents older than 18 years old, died within a hospital after being admitted to an inpatient unit, and died btwn 2005-2010. **Exclusion Criteria:** People who died in the emergency department of the hospital were excluded	IV: The respecting choices program DV: AD prevalence in a racially and ethnically diverse community	Stata's TEFECTS program	Regression of binary outcome and proportional difference tests P=0.05	DV: AD use increased from 25.8% to 38.4% after the Respecting Choices program was implemented	**Level IV** **Strengths:** Respecting choices is an effective ACP **Weaknesses:** Data was collected from in only one hospital, there may be a selection bias in only studying a decedent population **Conclusion:** Initiating the Respecting choices program increased the prevalence of ADs in a racially and ethnically diverse community.

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Table 2

Citation	Conceptual Framework	Design/Method	Sample/Settings	Major Variables & Definitions	Measurements	Analysis	Findings	Decisions for use
Sudore et al. (2014). A novel website to prepare diverse older adults for decision making and ACP:A pilot study Funding: U.S. Department of Veteran Affairs and the National Palliative Care Research Center Foundation. No conflicts of interest San Francisco	The transtheoretical model of health behavior change	Pilot cohort study Purpose: To assess the efficacy of an easy to use ACP website to engage older adults in ACP	N=43 Mean age of participants was 68.4 years old. 65% were nonwhite. **Inclusion Criteria**: English speaking and 60 years or older. **Exclusion Criteria:** Individuals who self-reported being deaf, blind, or did not own a phone fore follow-up scheduling. Participants who had severe cognitive impairment and those with mild to moderate cognitive impairment who were unable to recall at least one item on the three-item recall and/or were unable to perform a normal clock drawing based off of the mini-cognitive test.	Participant demographics such as age, gender, race, ethnicity. Education, religious, spiritual, acculturation, social support, finances, limited health literacy, health status, decision control preferences, surrogate decision maker, and previous care planning. IV1: engagement in ACP IV2: Action measures DV1: Behavior change categories	ACP engagement survey and likert scale. Participants were asked to rate precontemplation of ACP and contemplation. Used the Patient Health Questionnaire-2 and the Generalized Anxiety Disorder-2 scale. The control preferences scale and the validated Short Test of Functional Health Literacy in Adults	Wilcoxin signed rank sum, McNemar's test for dichotomous variables. p= 0.05.	PREPARE was rate 9 out of 10 for ease of use. Behavior change process measures average likert scores increased from 3.1 to 3.7. Participants significantly increased their engagement in ACP during the week after looking at the PREPARE website	**Level VI** **Strengths:** Study showed that PREPARE can help change a patient's behavior by helping them to begin to engage in ACP on their own. **Weaknesses:** This study was only done in one region of the U.S. and participants were not randomly chosen **Conclusion:** PREPARE positively affects behavior change in ACP.

AHRQ-Agency for Healthcare Research and Quality, ALF-Acute living facility, btwn-between, CA-cancer, CI-confidence interval, CPR-Cardiopulmonary resuscitation, ED-Emergency department, EOL-end of life, HCP-health care proxy, Hx-history, ICU-Intensive care unit, IPDAS-International Patient Decision Aids Standards, MD-medical doctor, NIA-National Institute on Aging, NES-non English speaker, NCI-National Cancer Institute, NH-nursing home, NP-Nurse practitioner, OCS-Observational cohort study, p- alpha value, patient-pt, PCP-primary care provider, POA-Power of attorney, RCT-randomized controlled trials, RP-respecting choices, SAS-statistical analysis software, tx-treatment, SPSS-Statistical Package for the Social Sciences, USA-United States of America, vs-verse

Appendix E

Table 2

Synthesis Table

Author	Bischoff	Butler	Clark	Colville	De Vleminck	Fine	Glaudemans	Hinderer	Ke	Lum	Pecanac	Sudore
Year	2014	2014	2015	2012	2016	2016	2015	2013	2015	2016	2014	2014
Level of Evidence	IV	I	V	VI	VI	VI	I	V	V	V	IV	VI
Design/ Method	OCS	SR	Q c SSI	Exploratory study with individual interviews	Q c 5 focus groups	Descriptive	Structured Review	Quasi-experimental pilot	Q meta synthesis	Q pilot	Retrospective chart	Exploratory analysis pilot
Country	USA	USA	USA	Scotland	Belgium	USA	Netherlands	USA	Taiwan	USA	USA	USA
Setting												
Inpatient											X	
Outpatient			X	X	X					X		
Community								X				X
Other	X	X				X	X		X			
Participant Studied		NA					NA		NA			
Patien**ts**	X-Deceased		X			X		X		X	X-Deceased	X
Healthcare provider/RN				X	X							
Types of Tools	NA-No report	NA					NA		NA			
Discussion			X	X	X					X	X	
Online Computer program						X						X
Multiple Interventions								X				
Outcomes Evaluated												

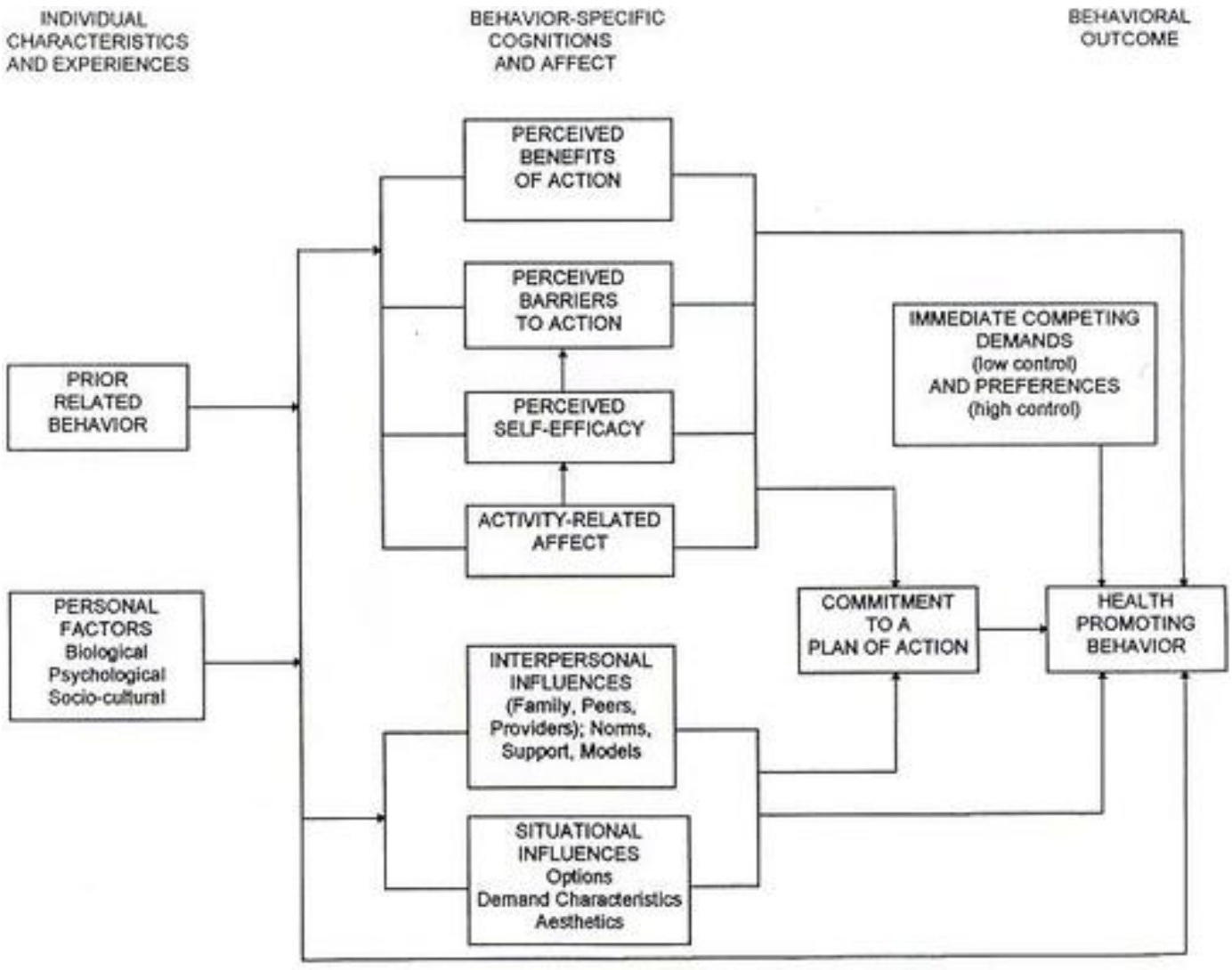
c-with, NA-Not applicable, OCS-Observational cohort study, pts-patients, Q-Qualitative, SR-Systematic review, SSI-semi structured interviews, stats-statistics, tx-treatment, USA-United States of America, ↑ -Increase, ↓ -Decrease

Patient Satisfaction								↑		↑		
AD completion rate	26% had AD, DPOA, and ACP discussion		↑	NA				more likely to complete AD ↑			↑	
ACP participation rate	76%		↑	↑				More likely to do ACP ↑		↑		↑
Other		ACP is ongoing, Decision aides can help patients to form AD			4 themes emerged	91% wanted palliative consult if seriously ill, 85% did not want life-sustaining tx in final days	ACP is used more often in pts with specific illness rather than community dwelling elderly in the Netherlands		4 themes-RNs are well placed to have ACP discussion			

c-with, NA-Not applicable, OCS-Observational cohort study, pts-patients, Q-Qualitative, SR-Systematic review, SSI-semi structured interviews, stats-statistics, tx-treatment, USA-United States of America, ↑ -Increase, ↓ -Decrease

Appendix F

The Health Promotional Model by Nola Pender (Adopted from Gonzalo, 2011)



Appendix G

Rosswurm and Larrabee model of Evidence Based Practice (EBP) (Adopted from Pipe, Wellik, Buchda, Hanse, & Martyn, 2005)