

IMPROVING THE USE OF POLST AND AHCD IN LONG-TERM CARE THROUGH A
COMMUNITY PARTNERSHIP

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Abstract

Background: In 1990 Congress passed the Patient Self-Determination Act, which requires any facilities receiving Medicare or Medicaid payment to inquire if the patient has an advance directive and to provide information if the patient does not have one (IOM, 2015). Advance Care Planning (ACP) for end-of-life care emerged in the mid-1970s to address the need for tools, such as the Advanced Health Care Directives (AHCD), to guide medical decision-making among seriously ill patients, their families, and healthcare providers (Nedjat-Haiem, Cadet, Amtaya, & Mishra, 2019). End-of-life care planning has evolved and currently tools available include Providers Orders for Life-Sustaining Treatment (POLST) and Advance Health Care Directives (AHCD). **Objective:** The goal of this evidence based quality improvement project was to improve healthcare staffs' (registered nurses, certified nursing assistants, admission staff and social work) knowledge and comfort level with discussing Providers Orders for Life-Sustaining Treatment (POLST) and Advanced Health Care Directives (AHCD) with newly admitted patients in a long-term care facility through a four-part interactive education workshop.

Methods: A four-series 30 minute staff educational workshop was conducted over a month period. Each workshop explored different avenues of advance care planning and utilization of POLST and AHCD in a long-term care facility. Five point-Likert scale pre and post survey completed by staff to assess self-reported confidence and knowledge. A pre and post knowledge quiz (true or false) evaluating knowledge about POLST and AHCD. **Results:** Overall staff average on knowledge quiz after completion of workshop series improved by 8%. **Conclusion:** Staff education workshops seem to improve knowledge and comfort, however the limited time for the project did not allow for observed improvements in conversations with patients about POLST and AHCD.

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Introduction

The Institute of Medicine (IOM) describes that in past decades people with serious illness would trust the judgment of their provider and agree to the suggested treatments or interventions recommended for them without advocating for their own wishes. Now, patients have access to more health information and are empowered to be a partner with their provider in planning all aspects of their care, including their end of life arrangements. The exponential growth in technology and medicine contributing to an increased life expectancy and the ability to keep an individual alive via machine (2015), coupled with changing provider-patient dynamics, has highlighted the importance of Advance Care Planning (ACP) for end-of-life care. ACP emerged in the mid-1970s to address the need for tools, such as the Advanced Health Care Directive (AHCD), to guide medical decision-making among severely ill patients, their families, and healthcare providers (Nedjat-Haiem, Cadet, Amtaya, & Mishra, 2019). End-of-life care planning has evolved, and currently, tools available for ACP include Providers Orders for Life-Sustaining Treatment (POLST) and Advance Health Care Directive (AHCD).

The POLST form was created in 1991 by a group of medical ethicists in Oregon, according to the National POLST Paradigm. POLST is a palliative care tool that contains standardized, actionable medical orders. The priority concern of POLST is to ensure that patient preferences are elicited, communicated, and honored across care settings. POLST is intended for patients with advanced chronic progressive disease or frailty (Hickman, Keerven,& Hammes, 2015). Each state has its term for its POLST form, and in Hawaii, the official name is Providers Orders for Life-Sustaining Treatment, because Advanced-Practice Registered Nurses (APRN), as well as physicians can sign the form.

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The goal of both POLST and AHCD is to provide a tool that can be used to iterate patient's desired and undesired treatments or interventions during an emergency or when an individual is no longer able to verbalize their wishes. Understanding and documenting the patient's wishes regarding their preferred medical care plan should occur before these situations to ensure appropriate care is delivered (Braun, 2016). POLST and AHCD discussions can be challenging; however, encouraging the conversation is a tremendous benefit for the patient and improves the quality of care. According to Miller (2017), educating staff is one crucial factor that can provide support and advocacy for patients who are candidates for completing these forms. POLST and AHCD are sensitive topics for health care staff and families, intending to facilitate patient understanding of advance care planning. While only patients can complete the AHCD, but staff can provide information so that the wishes of the patient are well-documented (Braun, 2016). The POLST form complements an AHCD by ensuring the patient's preferences about end-of-life care are followed in any health care setting (McGough, Hauschildt, Mollen, & Fields, 2014).

Description of the Problem

According to the American Nurses Association Code of Ethics with Interpretive Statements (2015), nurses are to provide patient education about advance care planning and be knowledgeable enough to discuss different types of AHCD. Unfortunately, there is a knowledge deficit among health care staff, including nurses, and this, in turn, affects the quality of care (Shepard, Waller, Sanson-Fisher, Clark, & Ball, 2018). According to McGough et al. (2014), the majority of Americans desire a natural death and one without interventions that may prolong the inevitable. However, 15% of families reported that their deceased loved one received life-saving interventions and aggressive medical treatments that were not desired.

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At Palolo Chinese Home (PCH), the setting for the Doctor of Nursing Practice (DNP) project, leadership noted gaps related to the implementation of the Federal Patient Self Determination Act. According to Sabatin (2010), organizations receiving funding from the Centers for Medicare/Medicaid Services (CMS) must meet five criteria related to advanced care planning to receive payment. Absences of any one of these criteria can lead to citations from state health departments, reduction in payments from CMS, and, most importantly, poor quality of care. The requirements include providing information in writing about patient rights related to care decisions and advanced directive, having policies and procedures regarding advance directive in place and allowing access to these policies to patients, documentation in the patient health record of execution of advance directive, compliance with advance directive per state law, and providing staff and community education about advance directive. Absence of any one of these criteria can lead to citations from state health departments, reduction in payments from CMS, and most importantly poor quality of care.

As stated by Miller (2017), nursing education only briefly discusses sensitive topics like POLST or AHCD; therefore, many nurses feel ill-equipped when the situation is encountered. When nurses lack confidence in discussing highly sensitive matters, patients may not have the opportunity to articulate their desires for advanced care planning completely.

Literature Search Strategy and Critique

The initial literature search was performed using CINAHL and PubMed, using the terms staff education and POLST (Physician orders for life-sustaining treatment) and yielded 1,821,149 results. Key search terms used were: “staff education,” “nursing training,” “polst,” “provider order for life-sustaining treatment,” “advance directive,” “advance care planning,” and “advance health care directive.” To refine the search, publications were limited to the years 1990

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to 2019. Additionally, search terms were reduced to “staff education” and “POLST” and “advance care planning,” which yielded 72 articles. After reviewing and reading more than 50 articles or abstracts, 14 articles were critiqued for the literature synthesis and were most relevant to the topic. (Appendix A)

Grading of Evidence

The literature was critiqued using the Johns Hopkins Nursing Evidence-based Practice Toolkit. The toolkit has two parts to the guide: it evaluates the level of evidence (LOE) and the quality ratings of the literature. In the articles reviewed, the LOE ranged from I to V (Appendix A & B).

Literature Synthesis

Provider Orders for Life-Sustaining Treatments

Multiple sources report that POLST is a valuable tool that provides clear and specific instructions regarding a patient’s wishes for life-sustaining treatments (Fromme, Zive, Schmidt, Cook,& Tolle, 2014; Hicksman et al., 2011; Schmidt, Hickman, Tolle,& Brooks, 2004; Tolle, Tilden, Dunn,& Nelson, 1998). In a retrospective chart abstractions by Hicksman et al. (2011), data showed that POLST ensured that patients' preferences matched the treatments provided 94.0% of the time. POLST orders indicated treatment orders for resuscitation and medical interventions, including tube feeding and treatment for comfort care (Hicksman et al., 2011). Another study evaluated the effectiveness of POLST amongst Emergency Medical Technicians (EMTs), and results revealed that POLST was useful for EMTs when making treatment decisions and also subsequently changed treatment plans (Schmidt et al., 2004).

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Advance Health Care Directive

The literature strongly suggests that AHCDs are a valuable tool in providing care that honors patients' wishes (Silveira, Kim, & Langa, 2010). Additionally, a cross-sectional survey found that the majority of health professionals agreed that an AHCD facilitated and improved end-of-life decision making (Peicius, Blazevidiene, & Kaminskas, 2017). Silveira, Kim et al. (2010) examined the value of AHCD when decisional capacity is lost by the patient and how that may affect the surrogates' decision making. The study concluded that when patients had an AHCD in place, it ensured that their end-of-life wishes were honored.

Staff Education Improves Nurses' Knowledge

The culture of health care is focused on providing patient-centered care, which includes discussing POLST and AHCD. A study by Coffey et al. (2016) noticed a correlation between staff knowledge of advance directive directly contributing to their confidence in discussing the topic with their patients. Respecting patient's rights is the ultimate concern, and completion of POLST and AHCD is one way to provide patient-centered care. Providing staff education on POLST and AHCD will allow the staff to become more comfortable and confident in initiating discussion. The literature supports the correlation between staff education and staff understanding and confidence in communicating with patients about POLST and AHCD (McGough et al., 2015; Coffey et al., 2016; Nedjat-Halem et al., 2019; Surr et al, 2017). A critical synthesis about training programs assessed the influence training could have on improving staffs' knowledge and confidence. The results revealed that 85% of training programs significantly increased staff assurance on a topic (Surr et al., 2017). An evidence-based descriptive study (McGough et al., 2015) found that mandatory registered nurse education meetings on POLST improved progressive care unit (PCU) RNs' knowledge and comfort level

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in discussing the topic and increased form completion rate. The study also showed that staff education on advanced health care directive created an overall positive experience for both staff and families (McGough et al., 2015). A cross-sectional descriptive design examined nurses' knowledge of advance directive and self-perceived confidence in end of life (EOL) care in Hong Kong, Ireland, Israel, Italy, and the US. The results revealed that in all countries, a substantial correlation was identified between adequate training in EOL care and nurses' confidence in patient interactions (Coffey et al., 2016). A systematic review by Siebelt, Haggi, and McFadden (2017) emphasized the importance of adequate health care staff training, which focuses on improving the staff's knowledge, approach, and skills to create a beneficial outcome.

Barriers in Advance Care Planning

Multiple studies also identified barriers to advance care planning (Fan & Rhee, 2017; Hicksman, Keervern, & Hammes, 2015; Nedjat-Halem et al., 2019; Shepard et al., 2018). A cross-sectional survey designed by Fan and Rhee (2017) examined nurses' beliefs, attitudes, perceptions, confidence, training, and educational needs related to Advance Care Planning (ACP). The 18 question survey showed that nurses' expressed need for additional resources to improve facilitation in ACP, such as learning discussion techniques, roleplaying various scenarios, and participation in webinars. A systematic literature review (Hicksman et al., 2015) assessed barriers associated with POLST use. The results revealed the difficulty in understanding/explaining the POLST and inadequate education of staff about the form. Another cross-sectional survey identified concerns expressed by health care staff regarding advance care planning. The study concluded staff only felt somewhat confident when educating their patients and believed training would be beneficial (Nedjat-Halem et al., 2019; Shepard et al., 2018).

Limitations of Literature

A recurrent weakness in the literature reviewed was the grade of level of evidence; many designs were cross-sectional. The highest level of evidence reviewed was Level I. Additionally, the majority of the studies used convenience sampling, which may not be an accurate depiction of the general population being studied. The data collection for the majority of studies used self-reporting, which can introduce responder bias and potential issues with an accurate representation of information (Fan & Rhee, 2017).

Intervention

Offering workplace education on advanced health care directive has been shown to increase staff knowledge and facilitate a positive experience (McGough et al., 2015) thus the intervention for this project was to conduct a four-series staff education workshop (Appendix C). Additionally, promoting staff education is a crucial factor in bridging the gap of completing advance directive to ensure the patients' end of life care decisions are honored (Pirinea, Wehner, & Ashurst, 2016). The project was in partnership with Kokua Mau, an organization of leading advocates in the community by promoting advance care planning and engagement in end-of-life care.

Conceptual Framework

The IOWA model (Appendix D) is the conceptual framework implemented for this DNP project. The Iowa Model is a seven-step framework that can guide the identification of a clinical problem and an intervention based on evidence to create a practice change (Brown, 2014). The IOWA model provides a guide that elicits a change in clinical practice and, more importantly, enhances the patient quality of care. The lack of staff education on POLST and AHCD created a barrier that impedes conversation regarding the topic.

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Evidence suggests that staff knowledge directly influences their confidence at initiating difficult conversations (Siebelt, Haggi & McFadden, 2017). When staff education is provided, it can substantially improve staff confidence in discussing POLST and AHCD (McGough et al., 2015; Coffey et al., 2016; Nedjat-Halem et al., 2019). This project evaluated the effectiveness of staff education workshops through measurement of knowledge and self-reported confidence (or comfort) in discussing POLST and AHCD.

PICO Question

Does the implementation of a four-series staff educational workshop on POLST and AHCD improve staff knowledge and comfort level in discussing the topics with newly admitted residents of a long-term care setting as compared to the current standard of no staff education?

Methods and Procedures

Purpose Statement and Project Objective

The purpose of this evidence-based quality improvement project was to strengthen healthcare staffs' (registered nurses, certified nursing assistants, admission staff and social work) knowledge and comfort level with discussing Providers Orders for Life-Sustaining Treatment (POLST) and Advanced Health Care Directive (AHCD) with newly admitted patients in a long-term care facility through a four-part interactive education workshop. Project objectives included: (a) by early November 2019, assess healthcare staff general knowledge of and comfort in discussing POLST and AHCD through a self-assessment survey and knowledge quiz; (b) by early November 2019, create a workshop curriculum based on the results of the pre-survey; (c) by the mid-December 2020, conduct a four-week workshop series on POLST and AHCD with a self-assessment survey given after each workshop; (d) by the end of January 2020, monitor staff discussions about POLST and AHCD; (e) by mid-January to early February 2020, complete

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knowledge quiz assessing staff's comfort and knowledge of POLST/AHCD. The training was based on POLST Curriculum created by The California Coalition for Compassionate Care and modified for Hawaii audiences by Kokua Mau.

Project Setting and Participants

The project was implemented at the Palolo Chinese Home provides skilled nursing, intermediate (long-term), and hospice care services. The facility has 100 inpatient beds divided into five units, and there are 40 RNs on-staff and 90 CNAs to provide nursing care. The primary population admitted to the facility is an adult and geriatric patients. Participants in the education workshop were Palolo Chinese home staff. Attendance was not mandatory, but paid overtime was offered for those who attended the workshops. Participation was open to all PCH staff, but the majority attending was certified nursing assistants, unit clerks, and registered nurses.

The workshop consisted of a four-week, 30-minute staff education series held Mondays in the HR training room. To accommodate the different staff shifts, workshops were offered at three different times to allow staff to complete the workshop either before or after their shift. The sessions utilized a PowerPoint presentation that promoted staff engagement and discussion. Workshops presented different topics for each session: *The Conversation Project*, Advance Health Care Directive, POLST, and overview/case study. The workshops were organized this way to allow staff to understand the foundation and importance of end-of-life conversations, which entails the use of POLST and Advance Health Care Directive. The first session introduced *The Conversation Project*, a beneficial tool that can facilitate an in-depth conversation that explores the quality of life and preferences. This provided an excellent foundation for initiating a difficult or challenging conversation for many. The second session discussed the specifics and benefits of an Advance Health Care Directive. The third workshop involved the importance of

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POLST, an explanation of each section, when POLST is utilized, and how an Advance Health Care Directive correlates into the health care setting. The last workshop incorporated a case study to encourage active participation and engagement regarding the proper use of POLST or an Advance Health Care Directive.

Human Subject Considerations

The Collaborative Institutional Training Initiative (CITI) Training for research ethics and compliance and Health Insurance Portability and Accountability Act (HIPAA) Training on patient privacy protections was completed. This DNP project involves making judgments about a program to improve or further develop program effectiveness and inform decisions about future programming within an organization (University of Hawaii Human Studies program, personal communication, August 2, 2018). All these tasks are related to quality improvement and will not produce generalizable knowledge. Thus, this project will not require IRB application and review.

Measurements and Data Collection Procedure

A knowledge quiz (Appendix E) and a self-assessment survey (Appendix F) were given to staff during change of shift and collected prior to the start of the four-workshop series. For staff who participated in any workshops, the quiz was given again after completion of the workshops to evaluate their general knowledge of POLST and AHCD. The knowledge quiz included five dichotomous questions related to POLST and AHCD, as well as an open-ended question related to their own personal conversations about end-of-life wishes. The open-ended question was to provide insight into personal barriers or concerns that staff may have when discussing POLST or AHCD. The self-assessment survey was a five-point Likert scale that evaluated knowledge, comfort, and employee's role in addressing POLST and AHCD. After each

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workshop, the self-assessment survey was completed by participants. The knowledge quiz was again completed by participants at the end of the four-workshop series.

Results

The workshop had a total of 30 staff members who attended one or more workshop. Staff attending included two-unit clerks, 17 RNs, and 10 CNAs (Figure 1). A total of 53 employees participated in the project including 23 that completed pre-survey before workshops, and their results were computed.

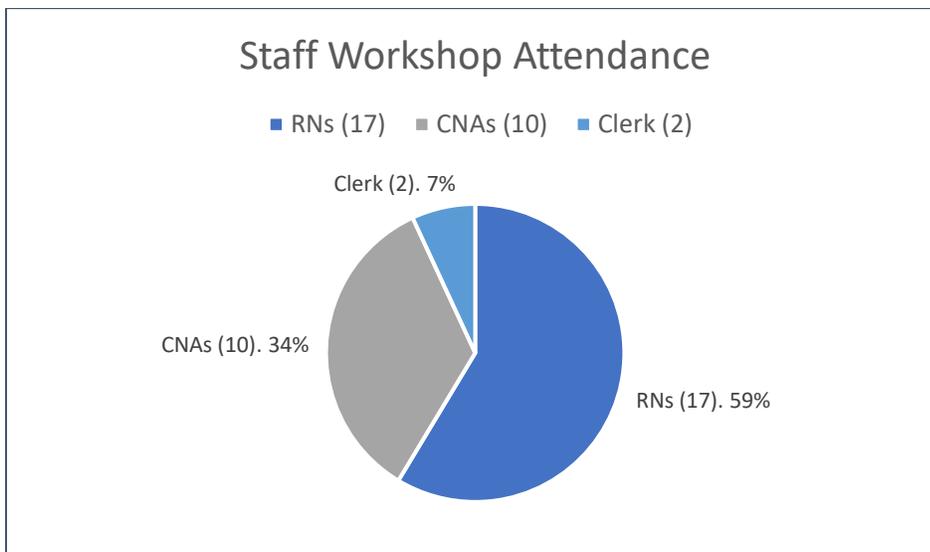


Figure 1: Total number of staff participation in workshop series

Knowledge Quiz: Pre-series

A knowledge quiz was administered to 23 staff members prior to the workshops to obtain a baseline of their general knowledge and insight of POLST/AHCD. The average percent correct per question ranged from 0%--74%. Question two was not answered correctly by any staff, while Q4 had the highest percentage correctly answered. The quiz had an average score of 32%, with the highest score of 50% and the lowest score of 0%.

Knowledge Quiz: Post-series

An identical knowledge quiz was given after completion of the four-week workshop series. Then after completion, results showed a slight improvement in overall average quiz score of 40% compared to the previous 32%. The average percent answered correctly per question improved for Q1 with a 21.7% increase as well as Q3 with an 8.3% gain. Q2 remained at 0% and was not answered correctly by staff after the workshop series. The 8% increase in staff average quiz score shows a slight improvement after workshop completion, but the quiz score ranged from 0% to 50%, similar to the first quiz.

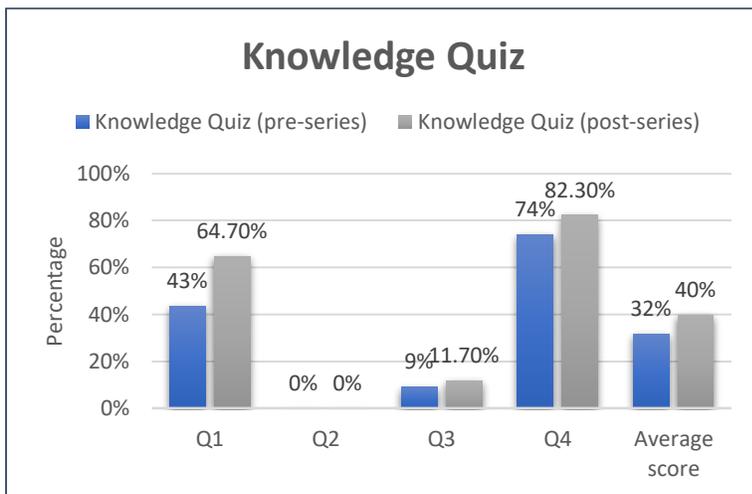


Figure 2: Percentage correct per questions and average score

The results for Q5: "I have my own AHCD" (Figure. 3) were compared to evaluate the workshop series prompted staff to complete an AHCD. There was not a significant improvement in the number of staff having an AHCD, which was similar to before the workshops. The majority of staff did not have an AHCD; only a total of five staff answered "yes" to having an AHCD, three prior to the workshop, and two after workshop completion.

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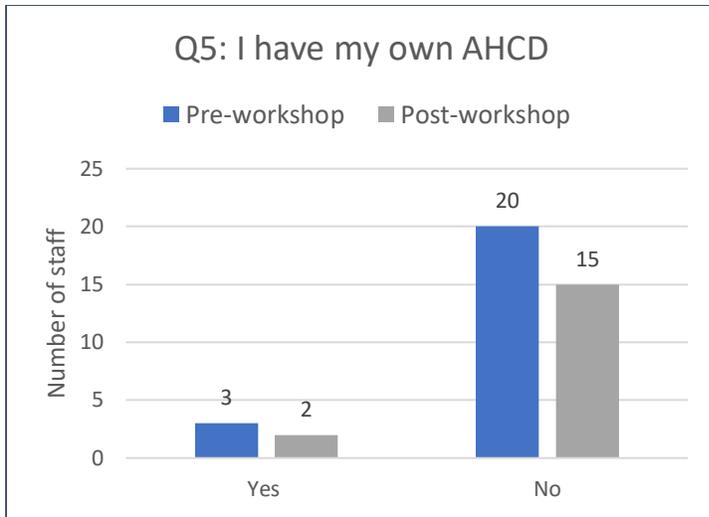


Figure 3: Staff response to having AHCD

When staff was asked if they had their own AHCD, the majority of staff expressed not having their own AHCD (Figure. 4). The quiz included an open-ended question to examine how many staff members have engaged in their own end-of-conversations with their loved ones. The result was fairly comparable to staff responses at the beginning of the workshop. Staff responses were evenly distributed between responses at the beginning and after the workshop. The highest selected response was "I'm confident they know my wishes" prior to the workshop. A notable reduction appeared in that same response after completion of workshop and became the least selected response by staff. After completion of the workshop series, staff responses were somewhat evenly distributed between "superficially they know" and "not at all."

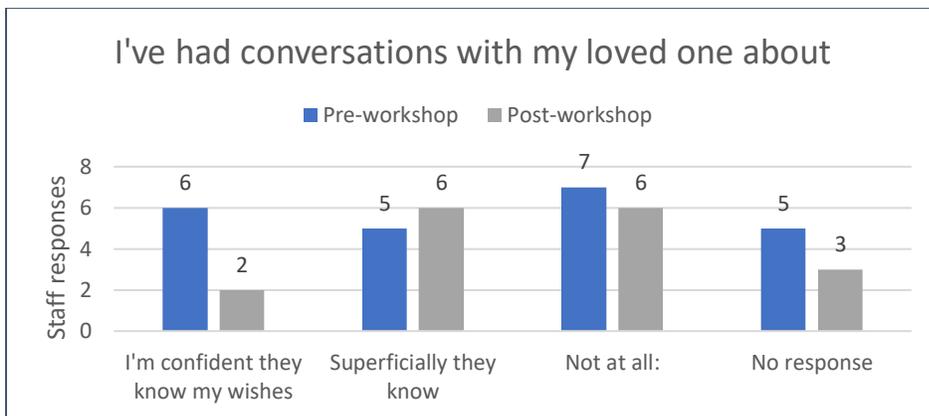


Figure 4: Staff response to the open-end question

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Self-Assessment Survey

The self-assessment survey administered prior to the workshops showed that a greater number of staff agreed or strongly agreed that they had knowledge about POLST and AHCDs, felt it was part of their job to discuss POLST and AHCDs, and were comfortable in discussing them with patients. After workshops one, two, and three, there was a linear increase in these scores. The total average score of the self-assessment survey showed an improvement from workshop one. The total average score for workshop 1 was 4.65, an increase from a score of 3.71 before the workshop series. Workshop three displayed the strongest rating score of 4.93. Of note, there was a slight decline in total average score after workshop four from workshop three, in which staff averaged 4.66.

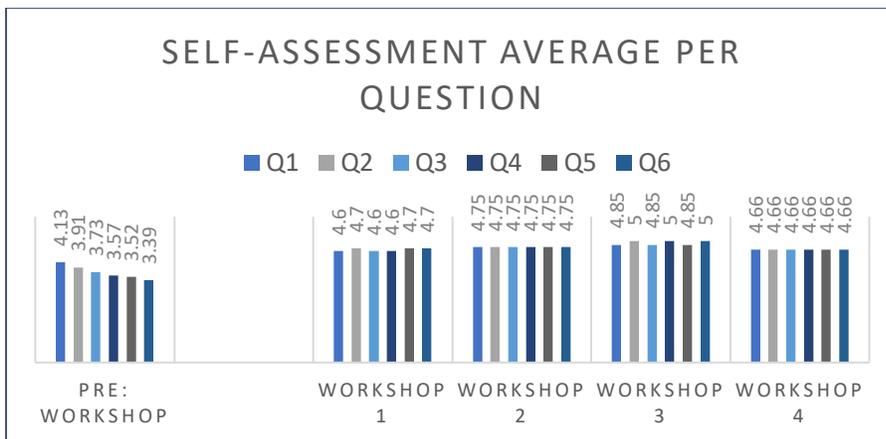


Figure 5: Self-assessment survey average per questions

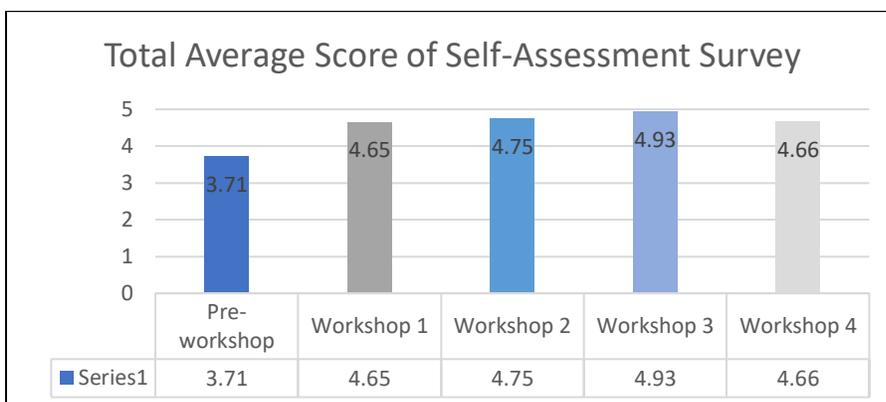


Figure 6: Total average score of self-assessment survey by workshops

Discussion and Program Evaluation

Staff education about POLST and AHCD is an essential tool that facilitates a higher level of patient care. The goal of advance care planning is to engage and empower the individual at expressing their values and ensuring wishes are honored. The topic is challenging for many individuals, yet the responsibility of initiating those conversations fall onto healthcare staff. This project demonstrated the influence that staff education can have on confidence and knowledge on POLST and AHCD. Prior to the workshop series, staff identified with having some confidence or knowledge about POLST and AHCD. Quiz scores and self-assessment ratings obtained prior to the workshops indicated staff had moderate confidence in topics, but there was an opportunity for improvement. After the workshop series completion, comparison of average quiz score by question did not reveal significant improvement. The results mirror scores prior to workshop, but there was an improvement in questions answered correctly. The staff expressed confidence in knowledge about POLST and AHCD, but this did not equate to knowledge based on total average quiz scores after the workshop. The self-assessment survey provided insight into staff's perception of their confidence and knowledge on both topics. Results demonstrated a gain in staff averages per question after the workshop. The total average scores of the quiz after completion displayed a slight score increase. The strong self-rating by staff of knowledge, responsibility, and comfort regarding POLST and AHCD did not translate into an improvement of quiz scores.

The project exemplified that staff education is a useful tool that can strengthen knowledge and comfort on POLST and AHCD. Furthermore, the project also highlighted that a “simple” task of completing POLST and AHCD included many variables and factors of which staff were not aware. In healthcare, it is crucial to communicate with staff to ensure that they

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understand the magnitude of their responsibilities and, more importantly, feel confident executing their duties.

The Essentials of Doctoral Education for Advanced Nursing Practice, describe eight core elements that should be included in a DNP curriculum (AACN, 2006). The DNP student should demonstrate competency in scientific foundations of practice, organizational and systems leadership, evidence-based practice, health care policy, information technology, population health, interprofessional collaboration, and advanced nursing practice (AACN, 2006). Appendix H provides a framework for the integration of the essentials into the DNP Project.

Limitations

The limitations identified in this pilot project were inconsistent staff participation in the workshops, especially for the early and mid-afternoon sessions. Staff that completed pre-data collection tools may not have attended any workshops, thus altering the post-workshop data collected. The design of the workshop could represent a challenge in improving staff knowledge due to workshop progression. All four workshops introduced and discussed different topics. The results do not take into account the number of workshops attended by staff; therefore, not all content was introduced to staff. The knowledge quiz may not be the most efficient tool to evaluate the staff knowledge of POLST and AHCD. Furthermore, quantitative data results may not be a precise representation of staff knowledge and comfort.

The material and content utilized were significantly modified to accommodate the allotted time. The volume of information delivered over a short period of time may have been a barrier to understanding the content entirely. Additionally, challenges related to the initiation of POLST and AHCD are multi-factorial and not only associated with knowledge deficit. The vague facility protocol made it difficult to sustain consistency for POLST and AHCD completion

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by staff. Finally, the lack of data about improvement in POLST and AHCD discussions after workshop attendance did not allow for evaluation that education improved practice.

Implications for Sustainability and Future Practice

This quality improvement project has provided insight into the importance of reinforcing and providing staff education in a long-term care setting. The majority of patients admitted are those that would greatly benefit from a thorough discussion on POLST and AHCD.

Implementing a facility protocol that provides a framework that translates to staff being able to confidently discuss advanced care planning would ultimately improve POLST and AHCD initiation. In order to sustain knowledge gains and improvement in initiation, facility leadership should create a team to develop and implement a protocol for POLST and AHCD initiation. The team should monitor consistent use and report findings on a monthly basis. By doing so, discussing POLST and AHCD will become a normal part of workflow while also specifying the responsibility for the process for each staff member in daily tasks while also specifying the responsibility of each staff member.

Conclusion

Current literature suggests that staff education can improve staff knowledge and confidence related to discussing POLST and AHCD. Promoting staff training has the potential to enhance the comfort of staff when talking about the content in the POLST and improve end-of-life communication skills (McGough et al., 2015). Advocating for staff education provides an opportunity to supply the necessary tools for staff engagement in POLST and AHCD discussions with sensitivity and confidence. This quality improvement project showcased the challenges and the apparent time that needs to be dedicated to fully allow staff to understand the in-depth topic

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of POLST and AHCD. It emphasized the importance of continuing education for staff about POLST and AHCD to make certain that patient preferences and decisions are honored.

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Appendix A: Literature Review Matrix

Table 1. Literature Review, Purpose, Research Question, Outcome, Level of Evidence				
Author & Title with APA Citation	Purpose	Research Question	Outcome	Level of Evidence
Coffey, A., McCarthy, G., Weathers, E., Friedman, M. I., Gallo, K., Ehrenfeld, M., ... Itzhaki, M. (2016). Nurses' knowledge of advance directives and perceived confidence in end-of-life care: a cross-sectional study in five countries. <i>International Journal of Nursing Practice (John Wiley & Sons, Inc.)</i> , 22(3), 247–257. https://doi-org.eres.library.manoa.hawaii.edu/10.1111/ijn.12417	Examine nurses' knowledge of Ads and self-perceived confidence in EOL care, in Hong Kong, Ireland, Israel, Italy and the US.	How does the knowledge of AHCD effect the end of life care that nurses' give to a patient?	a significant positive correlations were found between adequate training in providing EOL care and both nurses' confident dealing with patients'	Level V
Fan, E., & Rhee, J. J. (2017). A self-reported survey on the confidence levels and motivation of New South Wales practice nurses on conducting advance-care planning (ACP) initiatives in the general-practice setting. <i>Australian Journal of Primary Health</i> , 23(1), 80–86. https://doi-org.eres.library.manoa.hawaii.edu/10.1071/PY15174	The goal of the study was to understand the beliefs, attitudes, perceptions, confidence, training and educational needs of New South Wales practice nurses with regards to involvement in ACP.	To examine the overall understanding or attitudes of nurses and ACP.	Nurses' would like to have training about ACP in more detail because of the ethics that can be involved.	Level V
Fromme, E. K., Zive, D., Schmidt, T. A., Cook, J. N., & Tolle, S. W. (2014, July). Association between physician orders for life-sustaining treatment for scope of treatment and in-hospital death in Oregon. https://www.ncbi.nlm.nih.gov/pubmed/24913043	Examine the relationship between Physician Orders for Life-Sustaining Treatment (POLST) for Scope of Treatment and setting of care at time of death.	Will POLST navigate the scope of treatment during care at the time of death?	The association with numbers of deaths in the hospital suggests that end-of-life preferences of people who wish to avoid hospitalization as documented in POLST orders are honored.	Level V
Gavine, A., MacGillivray, S., Renfrew, M. J., Siebelt, L., Haggi, H., & McFadden, A. (2017). Education and training of healthcare staff in the knowledge, attitudes and skills needed to work effectively with breastfeeding women: a systematic review. <i>International Breastfeeding Journal</i> , 1–10. https://doi-	The goal was to determine whether education and training programs for healthcare staff have an effect on their knowledge and attitudes about supporting breastfeeding	Does staff training regarding breastfeeding affect their own attitudes when it comes to the topic and what type of training would be most beneficial?	The study identified a lack of good evidence on breastfeeding education and training for healthcare staff, further research must be conducted.	Level I

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org.eres.library.manoa.hawaii.edu/10.1186/s13006-016-0097-2	women. Also what type of training style is beneficial?			
Author & Title with APA Citation	Purpose	Research Question	Outcome	Level of Evidence
Hickman, S. E., Keevern, E., & Hammes, B. J. (2015). Use of the Physician Orders for Life-Sustaining Treatment Program in the Clinical Setting: A Systematic Review of the Literature. <i>Journal of the American Geriatrics Society</i> , 63(2), 341–350. https://doi-org.eres.library.manoa.hawaii.edu/10.1111/jgs.13248	The goal of this review was to identify directions for future research on the POLST.	How do facilities evaluate and complete POLST?	Future of POLST need to be more specified to certain factors in individualized care.	Level III
Hickman, S. E., Nelson, C. A., Moss, A. H., Tolle, S. W., Perrin, N. A., & Hammes, B. J. (2011). The Consistency Between Treatments Provided to Nursing Facility Residents and Orders on the Physician Orders for Life-Sustaining Treatment Form. <i>Journal of the American Geriatrics Society</i> , 59(11), 2091–2099. https://doi-org.eres.library.manoa.hawaii.edu/10.1111/j.1532-5415.2011.03656.x	Evaluate the consistency between treatments provided and Physician Orders for Life-Sustaining Treatment (POLST) orders.	Will POLST allow for consistency between treatment and patients preferences?	Medical treatments was nearly always consistent with POLST orders to provide or withhold life-sustaining interventions. The POLST program is a useful tool for ensuring that the treatment preferences of nursing facility residents are honored.	Level IV
McGough, N. N. H., Hauschildt, B., Mollon, D., & Fields, W. (2015). Nurses' knowledge and comfort levels using the Physician Orders for Life-sustaining Treatment (POLST) form in the progressive care unit. <i>Geriatric Nursing</i> , 36(1), 21–24. https://doi-org.eres.library.manoa.hawaii.edu/10.1016/j.gerinurse.2014.09.001	The purpose of this evidence-based practice project was to answer the question: among the RNs in a progressive care unit (PCU).	Does implementing a formal educational program increase the RNs knowledge and utilization of POLST?	POLST education program increased PCU RNs' knowledge and comfort level in using the POLST form.	Level V
Nedjat-Haiem, F. R., Cadet, T. J., Amatya, A., & Mishra, S. I. (2019). Healthcare Providers' Attitudes, Knowledge, and Practice Behaviors for Educating Patients About Advance Directives: A National Survey. <i>American Journal of Hospice & Palliative Medicine</i> , 36(5), 387–395. https://doi-	Examines providers' perspectives on Advance Directive education on attitudes about educating patients, prior knowledge, specific factors among	Study was to examine the providers perspective on AD.	Importance of AD discussions initiated by healthcare providers is critical to providing optimal patient-centered care.	Level V

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<p>org.eres.library.manoa.hawaii.edu/10.1177/1049909118813720</p>	<p>healthcare providers such as characteristics of work setting, knowledge, attitudes, and behaviors that may influence AD education and documentation.</p>			
<p>Peicius, E., Blazevidiene, A., & Kaminskas, R. (2017). Are advance directives helpful for good end of life decision making: a cross sectional survey of health professionals. <i>BMC Medical Ethics</i>, 18, 1–7. https://doi-org.eres.library.manoa.hawaii.edu/10.1186/s12910-017-0197-6</p>	<p>To examine health professionals' understanding and preferences related to advance directive. In addition, the study sought to explore the views of health care professionals of the application of Advance Directive (AD) in clinical practice.</p>	<p>How does the knowledge level of health professionals influence the application of advance directive?</p>	<p>Findings revealed a low level of knowledge on advance directive among health professionals. Most health professionals agreed that AD's improved end-of-life decision making.</p>	<p>Level IV</p>
<p>Schmidt, TA; Hickman, SE; Tolle, SW; & Brooks, HS. (2004). The Physician Orders for Life-Sustaining Treatment program: Oregon emergency medical technicians' practical experiences and attitudes. <i>Journal of the American Geriatrics Society</i>, 52(9), 1430–1434. https://doi-org.eres.library.manoa.hawaii.edu/10.1111/j.1532-5415.2004.52403.x</p>	<p>To evaluate emergency medical technicians' (EMTs) experiences with the Physician Orders for Life-Sustaining Treatment (POLST) program and learn about attitudes regarding its effectiveness.</p>	<p>How much knowledge do EMTs have with POLST?</p>	<p>Most respondents have experience with the POLST program. EMTs find the POLST form useful and often use it to change treatment decisions for patients.</p>	<p>Level V</p>
<p>Shepherd, J., Waller, A., Sanson-Fisher, R., Clark, K., & Ball, J. (2018). Knowledge of, and participation in, advance care planning: A cross-sectional study of acute and critical care nurses' perceptions. <i>International Journal of Nursing Studies</i>, 86, 74–81. https://doi-org.eres.library.manoa.hawaii.edu/10.1016/j.ijnurstu.2018.06.005</p>	<p>To examine nurses' knowledge of advance care planning in the acute/critical care setting.</p>	<p>Do nurses' own knowledge and attitudes may influence whether they engage in meaningful end-of-life conversations with patients.</p>	<p>Nurses have a key role in providing advice and engaging dying patients and their families in advance care planning practices. Nurses' own knowledge and rates of participation are low</p>	<p>Level V</p>

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<p>Silveira, M. J., Kim, S. Y. H., & Langa, K. M. (2010). Advance directives and outcomes of surrogate decision making before death. <i>New England Journal of Medicine</i>, 362(13), 1211–1218. https://doi-org.eres.library.manoa.hawaii.edu/10.1056/NEJMsa0907901</p>	<p>To examine the value of advance directive?</p>	<p>Do advance directive influence preferred care at the end of life?</p>	<p>Patients who had prepared advance directive received care that was strongly associated with their preferences. These findings support the continued use of advance directive.</p>	<p>Level III</p>
<p>Surr, C. A., & Gates, C. (2017). What works in delivering dementia education or training to hospital staff? A critical synthesis of the evidence. <i>International Journal of Nursing Studies</i>, 75, 172–188. https://doi-org.eres.library.manoa.hawaii.edu/10.1016/j.ijnurstu.2017.08.002</p>	<p>The purpose of this literature review was to examine published evidence on the most effective approaches to dementia training and education for hospital staff.</p>	<p>What is the most appropriate dementia staff training and education?</p>	<p>Specific factors of staff training and education were effective at increasing hospital staff's care in dementia patients.</p>	<p>Level III</p>
<p>Tolle, SW.; Tilden, VP.; Nelson, CA., & Dunn, PM. (1998). A prospective study of the efficacy of the physician order form for life-sustaining treatment. <i>Journal of the American Geriatrics Society</i>, 1097–1102. http://search.ebscohost.com.eres.library.manoa.hawaii.edu/login.aspx?direct=true&db=c8h&AN=107224514&sit e=ehost-live</p>				

Appendix B: Level of Evidence Grading Tool

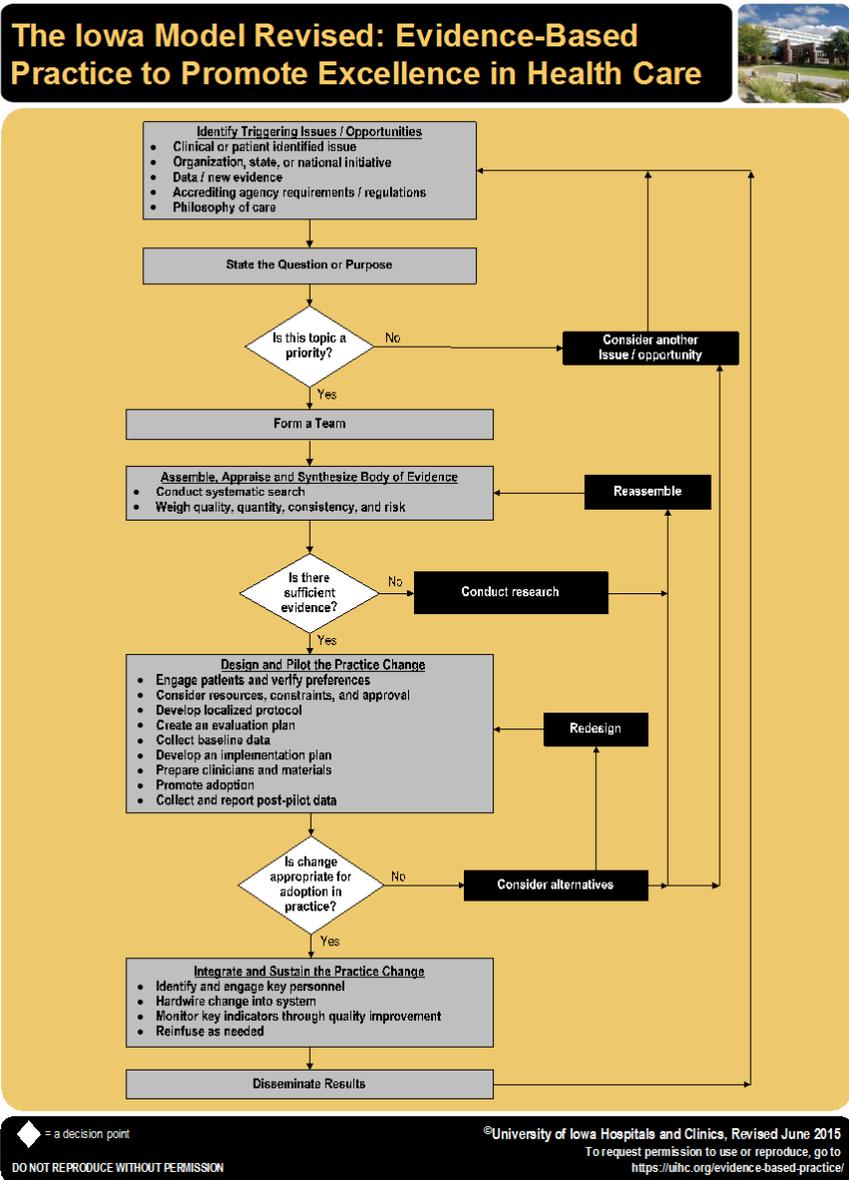
LEVELS OF EVIDENCE	JOHNS HOPKINS LEVELS OF EVIDENCE DEFINITIONS
I	Experimental study, randomized controlled trial (RCT) Systematic review of RCTs, with or without meta-analysis
II	Quasi-experimental Study Systematic review of a combination of RCTs and quasi-experimental, or quasi-experimental studies only, with or without meta-analysis.
III	Non-experimental study Systematic review of a combination of RCTs, quasi-experimental and non-experimental, or non-experimental studies only, with or without meta-analysis. Qualitative study or systematic review, with or without meta-analysis.
IV	Opinion of respected authorities and/or nationally recognized expert committees/consensus panels based on scientific evidence. Includes: – Clinical practice guidelines – Consensus panels
V	Based on experiential and non-research evidence. Includes: – Literature reviews – Quality improvement, program or financial evaluation – Case reports – Opinion of nationally recognized expert(s) based on experiential evidence

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Appendix C: Workshop Series Agenda

Workshop #1	Workshop #2	Workshop #3	Workshop #4
<ul style="list-style-type: none"> • Purpose of workshops • What is Advance Care Planning • Why is ACP important • How that relates to end-of-life care • Introduce The Conversation Project: start kit 	<ul style="list-style-type: none"> • Overview of AHCD • Why is it different than POLST • What is the value • Who’s responsible to discuss • Why is the conversation necessary • When is it utilized • Challenges associated with discussion • Suggestions to initiate discussion 	<ul style="list-style-type: none"> • Overview of POLST • General perceptions • Who’s responsible to discuss • Discuss the main components and how to relay to resident • How to initiate discussion • Who can sign • Value of POLST 	<ul style="list-style-type: none"> • Brief overview of POLST and AHCD • Case Study: providing scenarios to discuss POLST and AHCD • Questions or comments

Appendix D: IOWA Model



Appendix E: Knowledge quiz

1. <i>POLST and AHCD are interchangeable</i>	True	False
2. <i>Everyone admitted to PCH must have a POLST</i>	True	False
3. <i>AHCD to be legal must be notarized</i>	True	False
4. <i>Residents with a POLST do not need an AHCD</i>	True	False
5. <i>I have my own AHCD</i>	Yes	No
I've had conversations with my loved one about my wishes	<p>Select one that best applies:</p> <ul style="list-style-type: none"> ○ -I'm confident they know my wishes ○ -Superficially they know ○ -Not at all <p><i>If you selected not at all, why?</i></p> <ul style="list-style-type: none"> -I'm healthy and conversation is not a priority at this time -It's a difficult conversation -Other (fill in the blank): 	

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Appendix F: Self-Assessment survey: Pre workshop

1=Strongly disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly agree					
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
I am knowledgeable about POLST.	1	2	3	4	5
I am knowledgeable about Advance Health Care Directive.	1	2	3	4	5
It is part of my job description to discuss POLST.	1	2	3	4	5
It is part of my job description to discuss Advance Health Care Directive.	1	2	3	4	5
I'm comfortable discussing POLST with a resident.	1	2	3	4	5
I'm comfortable discussing Advance Health Care Directive with a resident.	1	2	3	4	5

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Appendix G: Self-assessment survey: Post

1=Strongly disagree 2=Disagree 3=Undecided 4=Agree 5=Strongly agree					
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
After today's session I feel that I've learned more about POLST.	1	2	3	4	5
After today's session I feel that I've learned more about Advance Healthcare Directive.	1	2	3	4	5
I will be able to utilize what I learned about POLST.	1	2	3	4	5
I will be able to utilize what I learned about Advance Healthcare Directive.	1	2	3	4	5
I feel more confident discussing about POLST than I did last week.	1	2	3	4	5
I feel more confident discussing about Advance Healthcare Directive than I did last week.	1	2	3	4	5

Appendix H: DNP Essential with Outline

DNP Essential	DNP Student's Activities/Products
Essential I: Scientific Underpinnings for Practice	<ul style="list-style-type: none"> • Completion of required DNP program course work specific to evidence-based practice, program evaluation, leadership, translation science, the DNP project, informatics, bioethics, economics, and health policy. • Literature search, critique and rating of evidence utilized for DNP project. • This evidence-based quality improvement project used current literature and scientific rationale to improve comfort and knowledge of healthcare staff that is similar with nursing values and practice.
Essential II: Organizational and Systems Leadership	<ul style="list-style-type: none"> • Completion of require DNP program course work focusing on leadership in health systems (including course work identified in Essential I). • As the DNP project leader, this DNP student used her communication skills to engage with facility stakeholders, facility staff and community experts to facilitate education regarding POLST and AHCD.
Essential III: Clinical Scholarship and Analytical Methods for EBP	<ul style="list-style-type: none"> • Review and evaluation of the literature to determine the prevalence and significance of the problem and determine best practices to address the problem • Preparation of DNP project report
Essential IV: Information Systems/Technology	<ul style="list-style-type: none"> • Completion of coursework for technology and informatics (including course work identified in Essential I). No medical records were used for this DNP project.
Essential V: Health Care Policy for Advocacy in Health Care	<ul style="list-style-type: none"> • Completion of coursework for health policy (including course work identified in Essential I).
Essential VI: Inter-Professional Collaboration	<ul style="list-style-type: none"> • Identification of improving staff education in the health care setting for staff regarding end-of-life conversations. More specifically advocating conversations about POLST and AHCD to improve staff comfort and knowledge. By doing so, will translate into providing quality patient care.
Essential VII: Clinical Prevention and Population Health	<ul style="list-style-type: none"> • Review of literature for this DNP project and clinical practice • Designed, directed and evaluated quality improvement methods to support staff education about POLST and AHCD as identified in DNP project.
Essential VIII: Advanced Nursing Practice	<ul style="list-style-type: none"> • Developed, implemented and evaluated of best practices to meet current or future needs of staff education as identified in DNP project. Completion of at least 500 hours of clinical rotations.

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Appendix I: Gantt Chart

Objective/Aim	Sub-Tasks	Responsible Person	Due Date	Comments
Major Task #1: By early August 2019, assess healthcare staff's general knowledge of and comfort in discussing POLST and AHCD through a pre-survey.				
Distribute self-assessment survey for CNAs, RNs, SW, admissions assessing knowledge and comfort of POLST and AHCD	-Evaluate current literature and other research regarding POLST and AHCD education training	DNP student, kokua mau	8/1/19-8/15/19	Using a Likert scale self-assessment survey will be able to evaluate staff's general knowledge and comfort
Distribute self-assessment survey for CNAs, RNs, SW, admissions assessing knowledge and comfort of POLST and AHCD	-Evaluate current literature and other research regarding POLST and AHCD education training	DNP student, kokua mau	8/1/19-8/15/19	
Evaluate survey and assess major themes or keywords that are commonly noted	Develop staff training workshop curriculum based on self-assessment survey results -Identify weaknesses or challenges for staff about POLST/AHCD	DNP student, kokua mau, DNP chair	8/1/19-8/15/19	.
Major Task #2: By the end of September 2019, conduct the four-series staff education workshop on POLST and AHCD. Goal is to have >75% RNs, >50% of CNAs and >90% of social work and admissions will attend training.				
Design a four series educational workshop curriculum for staff, that builds upon last workshop.	-Evaluate self-assessment survey given to staff to identify strengths/weaknesses - Review feedback from each workshop -Appropriately edit education training as needed	DNP student, kokua mau, DNP chair, DON, COO	8/1/19-9/30/19	
Present educational workshop with PCH admin and seek approval	-Meet with CEO or COO -Meet with DON	DNP student, CEO, COO, DON, kokua mau	8/1/19-9/30/19	-Making necessary changes based on admin feedback
Go to respected departments to inform RNs, CNAs, Social work and admissions of POLST/AHCD training workshop dates to be attended		DNP student, kokua mau, DON, Nurse manager, administration	8/1/19-9/30/19	
Advertise educational workshop to staff i.e fliers, emails, in-person reminders		DNP student, facility RNs, CNAs, SW, admissions	8/1/19-9/30/19	

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Initiate four series educational workshops weekly, hosted at 6:00am, 1:00pm and 2:30pm.	Request feedback from attendees at the end of each workshop to improve next workshop session	DNP student, facility RNs, CNAs, SW, admissions	8/1/19-9/30/19	-NOC shift will attend 6:00am, eve shift will attend 1:00pm and day shift will attend 2:30pm workshop.
Major Task #3: From October to December 2019, initiate staff discussion with newly admitted residents about POLST and AHCD.				
-Staff will initiate discussions with newly admitted residents discuss POLST/AHCD.		DNP student, Kokua mau RNs, CNAs, admissions, SW	8/1/19-9/30/19	-Continuous staff feedback regarding concerns or questions. -Usefulness of “cheat sheet” during POLST/AHCD discussions
Major Task #4: By the end of December 2019, assess and evaluate regarding staff comfort level discussing on POLST/AHCD for new admissions through a Self-assessment survey.				
Self-assessment survey to evaluate and assess staff’s comfort and knowledge of POLST and AHCD.	-Compare results of self-assessment survey to Self-assessment survey.	-DNP student, unit clerks, charge nurse, administration	12/30/19-1/30/20	-Goal is that staff will have the knowledge and increase comfort on discussion POLST/AHCD with newly admitted residents. -Using numeric scale, staff will be able to rate knowledge of and comfort level on POLST/AHCD.