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STANDARDIZED EDUCATION ON PHYSICIAN ORDERS FOR LIFE SUSTAINING
TREATMENT(POLST) CONVERSATIONS

UNIVERSITY OF SAN DIEGO

Hahn School of Nursing and Health Science

DOCTOR OF NURSING PRACTICE

Standardized Education on Physician Orders for Life Sustaining Treatment (POLST)

Conversations

by

Venessa Oteniya

A Doctor of Nursing Practice Portfolio presented to the

FACULTY OF THE HAHN SCHOOL OF NURSING AND HEALTH SCIENCE

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DOCTOR OF NURSING PRACTICE

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Faculty Advisor: Caroline Etland PhD, RN, ACHPN,

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Clinical Mentor: Karl Steinberg, MD

Abstract

According to research literature, 15% of Medicare beneficiaries spend more than 7 days in the intensive care unit before they die. These Medicare beneficiaries receive aggressive, life-prolonging medical treatments that might not be in agreement with their wishes. Approximately 13% of SNF residents have improperly completed Physician Orders for Life Sustaining Treatment (POLST) forms that can result in intensive treatments that patients did not want. One barrier to the lack of POLST completion in SNFs is staff difficulty with understanding and explaining the form, a result of inadequate education.

In August 2020, the San Diego Coalition for Compassionate Care formed an education program to provide virtual POLST-conversation education to health care workers. This evidence-based practice project is a retrospective analysis of the coalition's program results. Health care workers completed a pre survey, attended a virtual POLST education session, and completed a post survey. Data from the training session was analyzed for quantitative and qualitative responses from pre- and post-training evaluations. Fifty-one health care workers took part in the survey. Participants extreme comfort with talking about wishes for life-sustaining treatment increased by 32.4% after the virtual POLST training and 21.6% of the participants believed that they would be effective in having POLST conversations. Participants perceived difficulty with approaching APC/POLST conversations improved by 12% and the recognized need for further education on POLST conversations improved by 29%. Standardized POLST education promotes a change in Perceptions for healthcare workers which increases successful POLST conversations with patients and families.

Keywords: POLST, ACP, Virtual education, healthcare worker education.

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Standardized Education on POLST Conversations

Background

Due to technological and medical advances, life expectancy of the United States has increased tremendously. Now more than ever, older individuals enter care without a support system or documentation of wishes for life-sustaining treatment. “The need for nurses to promote advance directives is becoming increasingly relevant to the current healthcare system. Our aging population is increasing and advancing technology has transformed chronic, terminal illnesses to conditions that cause slow debilitation” (Miller, 2017, p.1)

Advanced care planning (ACP) originally only focused on advanced health care directives for patients who were severely ill. Advance care planning has evolved to include things like Physician Orders for Life Sustaining Treatment (POLST), also known as Medical Orders for Life-Sustaining Treatment (Nedjat-Haiem, et al., 2019). The POLST form was created in 1991 because patients’ preferences for end-of-life care had not been consistently honored (POLST.org, 2018). An ethics board created the tool for honoring patients’ wishes for end-of-life treatment (Nedjat-Haiem, et al., 2019). The new National POLST Paradigm Task Force (NPPTF) was formed in 2004 and established standards by which individual states could develop and endorse POLST programs. The POLST form can be adopted and utilized across multiple care settings and individuals, including paramedics, fire departments, police, hospitals, and skilled nursing facilities (SNFs) (Braun, 2016).

A POLST is a “standardized, portable, single-page, brightly colored and thus highly visible document” (Braun, 2016, p. 1111) used to clearly express a patient’s desired end of life

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treatment and emergency intervention. Patients should understand POLST forms and proper POLST documentation should be present before emergencies occur so that the appropriate level of care can be provided. Having end-of-life- and POLST conversations can be difficult for both patients and their providers; however, having the conversation and accurately completing a POLST form improves the patients' quality of care. Therefore, educating health care workers is a crucial part of ensuring that POLST forms are completed accurately (Miller, 2017).

Statement of the Problem

Most Americans prefer a natural death, in a familiar environment, with loved ones, and without interventions to prolong life or delay the dying process. During the last 180 days of life, 15% of Medicare beneficiaries spent more than seven days in the intensive care unit where they received aggressive, life-prolonging medical treatments (McGough et al., 2015). Forty-two percent of the sample in one study saw more than ten physicians, suggesting intense medical interventions. A discrepancy exists between end-of-life wishes and the actual care a patient receives. Advance care planning in critically ill or dying patients also reduces health care costs and provide patients with a better quality of life (Chaudhuri et al., 2017).

Nurses and other health care workers conduct POLST conversations in all health care settings, particularly in SNFs. During POLST and advance care planning conversations, it is imperative that health care workers understand the history and nature of advance health care directives and POLST. Health care workers report that they experience slight discomfort when discussing end-of-life care. According to Hickman et al. (2020), the major challenges with POLST completion in SNFs were staff difficulties with understanding and explaining the form as

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well as lack of time to have the POLST conversation. The gap in knowledge among health care workers affected the quality of education provided to patients (Miller, 2017). Nurses' knowledge and rates of participation in advance care planning completion were low; therefore, further education is necessary to ensure that nurses and other health care workers have the correct knowledge of recommended practices.

According to Braun (2016), 13% of California nursing home residents had POLST forms that were improperly completed or invalid due to lack of proper signatures. Invalid POLST forms often led to care that was inconsistent with what the patient wishes. Standardized POLST education provided to health care workers could mitigate some of these issues and thereby prevent unnecessary hospitalizations. Unfortunately, the lack of preparation among health care workers and nurses negatively affects patient care and outcomes at the end of life. (Shepherd et al., 2018)

COVID-19 has raised public awareness of advance care planning (ACP) and how rapidly health can deteriorate; it has also shifted business models to include virtual interaction. Due to the COVID-19 pandemic, known barriers to ACP have worsened. POLST forms are typically completed in primary care offices, upon admission to an SNF or hospital. At the beginning of the COVID-19 pandemic, primary care offices were closed limiting access to care; social distancing and other efforts to reduce disease spread made it harder to complete, sign, and access POLST and advance directive forms as providers transitioned to telehealth. The number of POLST forms completed electronically increased by 53% (Thavaraj & Gillett, 2019). With rising COVID-19 cases and death rates, it is essential that health care workers have easily accessible POLST

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education. High-quality POLST education would improve knowledge and confidence with administering POLST conversations and thereby improving patient care. (Selman et al., 2020).

Evidence-based Practice (EBP) Intervention

POLST completion is not a mandated regulatory measure therefore, no benchmarks exist. Zive et al. (2019) reported improved trends for advanced directives/POLST completion over the last two decades, up to 46% completion in some states. An accurately completed POLST form ensures that patients' preferences match the treatments provided 94.0% of the time (Hickman et al., 2011). According to Schmidt et al. (2004), Emergency Medical Technicians (EMTs) reported that when a POLST was present, 45% of the treatment plans were changed. EMTs also agreed that the POLST form provided clear instructions about patient preferences. As most cardiac arrests happen in the home or outside of the hospital (Centers for Disease Control [CDC], 2021), EMTs must make quick decisions about treatment. Ninety-three percent of EMTs stated that a POLST form was essential in selecting the appropriate treatment for a patient in cardiac arrest (Schmidt et al., 2004).

According to Hickman et al. (2020), the major challenges in POLST completion in SNFs are time and staff difficulties in understanding and explaining the POLST form. For POLST forms to be considered valid and actionable, they must be accurately completed. Standardized education for nurses and all health care workers is one method to ensure a consistent approach. Coffey et al. (2016) suggested a significant correlation between staff knowledge of advance care planning and confidence in having end-of-life conversations.

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Changes in behavior, perceptions, and attitudes can be achieved through standardized education. In a study by Karman et al. (2015), a training program was created to teach nurses new ways to use less restrictive interventions when caring for self-harm patients. The researchers' intent was to change nurse's knowledge, attitude, and skills. The researchers found that nurses' thoughts and attitudes about self-harm changed. With changes in perception and attitude came a change in professional behavior. All the nurses who experienced behavioral changes felt more confident with the care they provided. McGough et al. (2015) reported that providing POLST education to nurses and health care workers could increase knowledge and confidence thereby increasing the likelihood of a health care worker accurately completing a POLST form. POLST education could also lead to changes in behavior and attitude as well as effect a change to practice.

Options for health care training have expanded along with technological advances. Remote learning pedagogy has improved access to health care information. Remote learning allows access to information by more people, saves time, and is less expensive than other teaching methods (Taylor et al., 2020). Multiple online training platforms offer education and information to health care workers about POLST conversations. The Department of Veterans Affairs (VA) Office of Rural Health (ORH) also supports educating health care workers on advance care planning using telehealth technology (Temple, 2020). Online, standardized education in advance care planning can lead to a significant increase in knowledge, attitude, and change behaviors in health care workers (Wittenberg et al, 2020).

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Project Purpose

The purpose of this evidence-based practice (EBP) project was to increase health care workers' knowledge, confidence, and effectiveness in conducting a Physician Orders for Life-Sustaining Treatment (POLST) conversation by 40%.

PICO Question

In health care workers, does virtual education on Physician Orders for Life Sustaining Treatment (POLST) increase their comfort, effectiveness, and knowledge in POLST conversations with patients after one virtual class session?

EBP Model

The Iowa Model was the EBP model used to implement this project. The Iowa Model is a seven-step decision-making algorithm that assists health care professionals in translating research into clinical practice as well as finding areas for change. The health care provider can identify problems in clinical practice and implement change based on current evidence. The Iowa Model encourages creating a team to evaluate and implement the proposed changes with interdisciplinary collaboration (Brown, 2014). All the steps of the Iowa Model are presented in Appendix A.

Project Implementation/Process Plan

In August 2020, the San Diego Coalition for Compassionate Care (SDCCC) formed an education program to provide virtual POLST conversation education to health care workers. This EBP project analyzed outcomes of that educational program. The first step in the process was involvement with SDCCC's education committee to understand the POLST education process

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and participated in the team's weekly meetings. The DNP student attended a virtual POLST education class to identify frequent questions/concerns from attendees. Upon registration, class participants were asked to complete a pre- and post-education survey (see Appendix B) that formed the dataset for the project over the next 4 months.

Quantitative and qualitative responses were analyzed from pre- and post-training surveys. The pre- and post-training survey questions were compiled electronically and reviewed by the members of the SDCCC. After receiving an exemption from the Institutional Review Board of the University of San Diego, 51 participants' pre- and post-education questionnaires were reviewed for quantitative and qualitative values. Nine questions were analyzed for this project: two demographic questions, three qualitative questions, and four quantitative questions.

Evaluation of Results

The first demographic question asked about the professional role of the participant. Registered nurses (60%) constituted the largest healthcare professional group to attend training, followed by social workers (19%). Figure 1 provides a summary of the results.

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Figure 1

Professional Roles

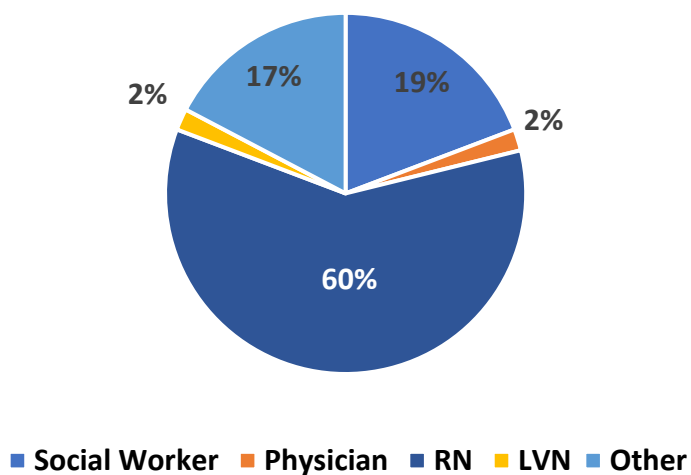


Figure 2 depicts the participants' frequency of POLST/ACP conversations. Most participants (43%) rarely have ACP or POLST conversations with residents/patients or families due to lack of comfort with the topic and lack of an opportunity.

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Figure 2

Frequency of ACP Conversations

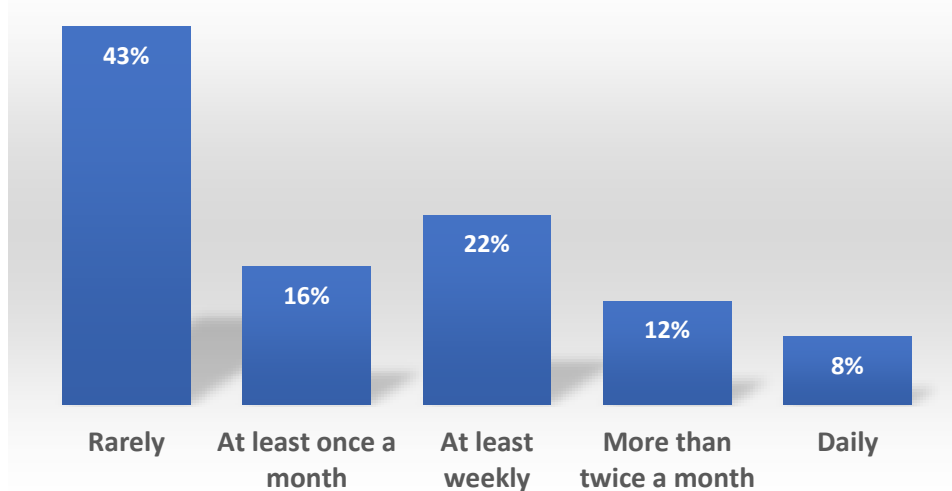


Figure 3 illustrates any history of participants receiving APC/POLST education. Most participants indicated that this was their first ACP/POLST class.

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Figure 3

Is this your first class on Advance Care Planning (ACP) or POLST?

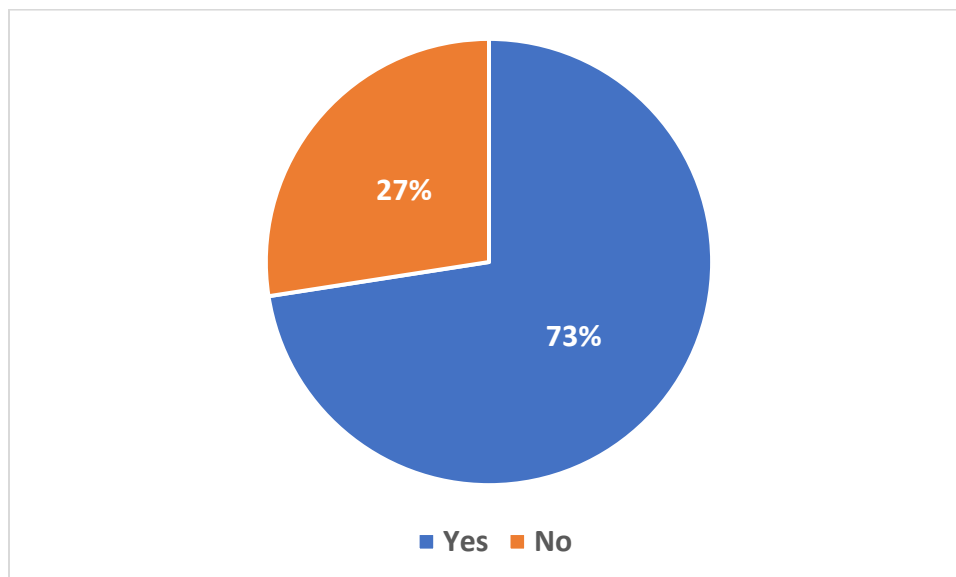


Figure 4 summarizes responses regarding participants' comfort level with talking to residents/patients or families about wishes for life-sustaining treatment. Only 19.6% of participants indicated that they were extremely comfortable with having ACP/POLST conversations, before the virtual POLST training. While scores in comfort level increased after virtual training to approximately 52%, participants may benefit from further education.

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Figure 4

Rating of Comfort Level Talking About Final Wishes

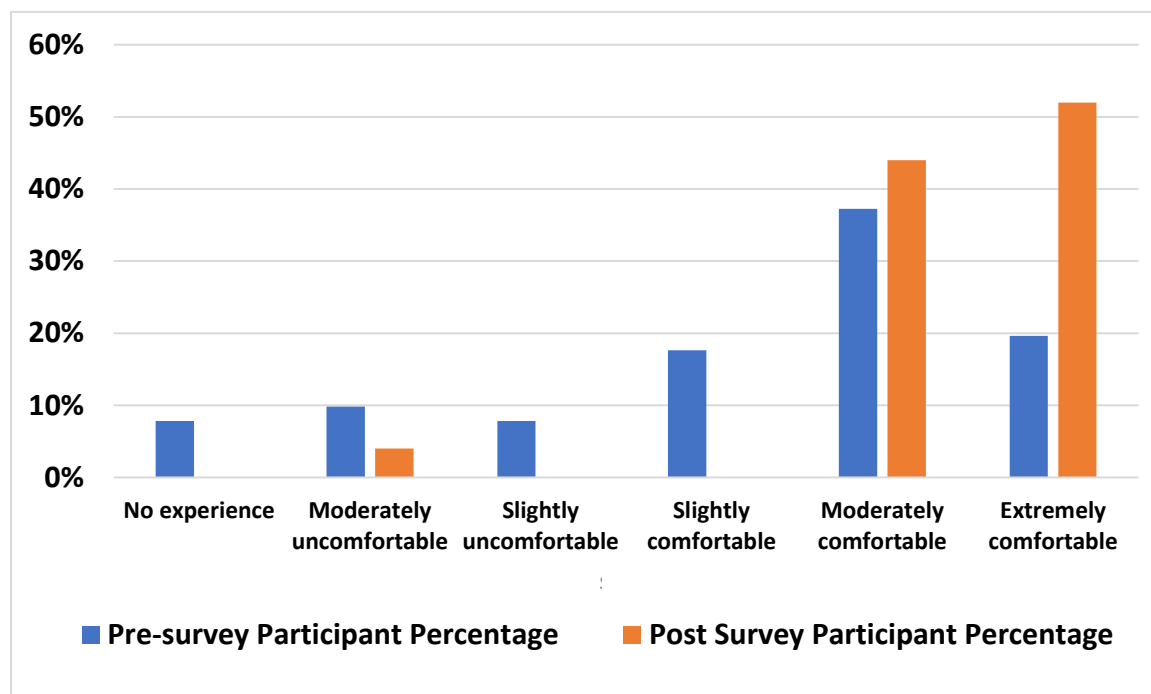


Figure 5 demonstrates participants' perceived effectiveness level. Before virtual POLST training, few participants rated themselves as very effective at having POLST conversations (12%). After the virtual POLST training, there was a remarkable improvement in perceived effectiveness to 33%.

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Figure 5

Perceived Effectiveness Level with POLST Conversation

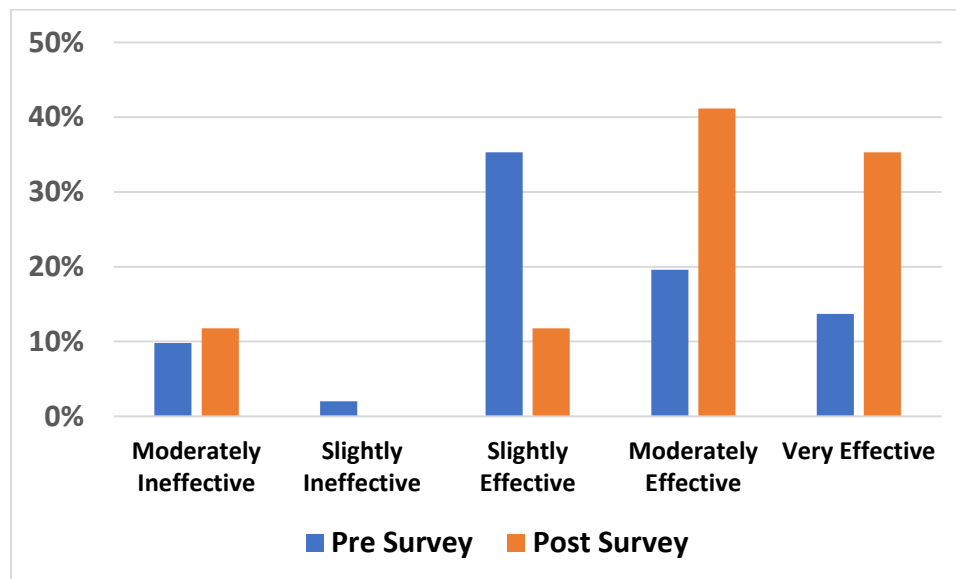


Figure 6 shows participants' agreement with the statement, *it is difficult for me to approach sensitive topics such as CPR, ventilators and tube feedings with residents/patients and families*. Before virtual POLST training, 11.8% agreed that it was difficult, but after virtual POLST training, the perceived difficulty dropped to only 4% of respondents. While the data reflected only a slight change in participants' perceived difficulty approaching end-of-life conversations, this may be due to the lack of opportunity in this setting.

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Figure 6

Difficult for Me to Approach Sensitive Topics

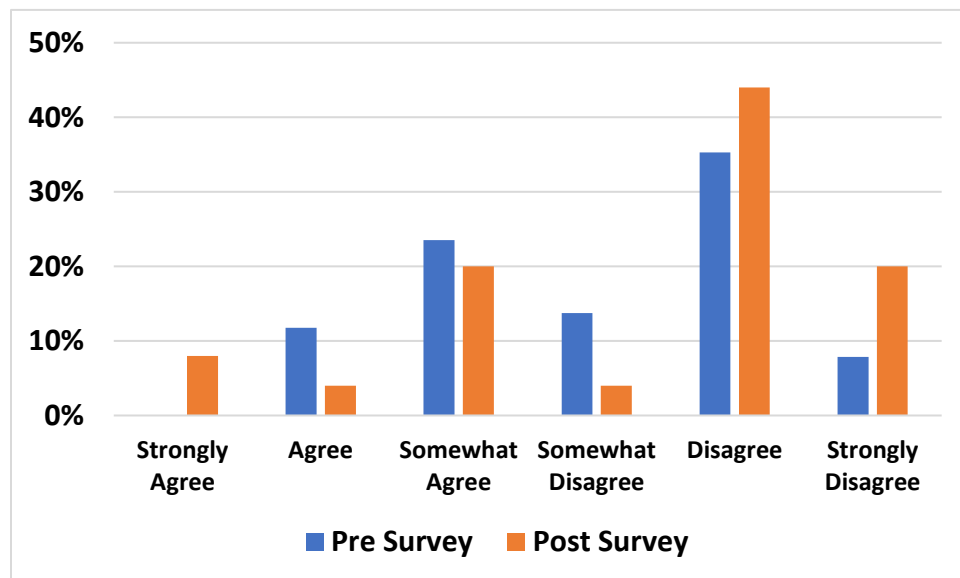
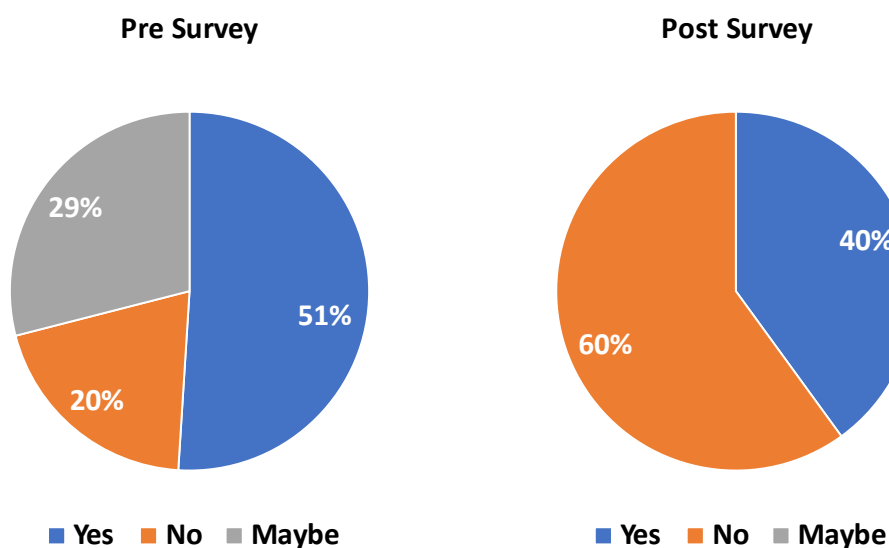


Figure 7 presents the results regarding participants' need for further education. Before virtual POLST training, 20% of participants reported that they did not need more training to conduct ACP/POLST conversations. After virtual POLST training, more participants (60%) indicated no need for additional training. More participants stated that they did not need further education which means that the education provided was effective.

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Figure 7

Need for Further ACP/POLST Training



Gaps

Participants were asked a single open-ended question, *When do you feel you are being most effective communicating about ACP/POLST with residents/patients or families?* Although more than 50% of the participants responded, most were notations in incomplete sentences and therefore difficult to report. Furthermore, some participants did not complete all the survey questions or did not participate in the post-survey. As the surveys were deidentified for confidentiality, there was no way to match pre and post-surveys for comparison. Therefore, individual perception of personal improvement was not documented.

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Cost-Benefit Analysis

Cost-benefit analysis is facility- and class specific. The cost for a one-hour virtual POLST class was \$1,358 based on the average salaries for 51 participants as stated on indeed.com (n.d.). One five-day ICU hospital stay (bed changes only), cost an average of \$25,526 (Chaudhuri et al., 2017). Further details are included in Table 1.

Major benefits to implementing virtual POLST education for health care workers include the avoidance of final hospital costs to the patient/family, better patient outcomes, and honoring the patient's last wishes. As of January 1, 2016, Medicare reimburses providers \$86 for advance care planning (ACP) and POLST discussions for a 30-minute visit (Zeitoun, 2015). The virtual POLST education class is both cost-effective and beneficial to both the patient and the facility.

Table 1

Cost Benefit Analysis

Costs		Benefits	
Financial	Non-Financial	Financial	Non-Financial
Average salaries of participants. <ul style="list-style-type: none"> RN: \$43/ hr. X 24 RNs= \$1,032 	<ul style="list-style-type: none"> Volunteers with SDCCC who helped create survey questions. 	<ul style="list-style-type: none"> Reimbursement for ACP conversation per patient is \$86 Patient avoided ICU admissions for one patient for one 5-day stay is \$25,526 	<ul style="list-style-type: none"> Wholistic care that follows patient's wishes Better satisfaction with care

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<ul style="list-style-type: none"> • Social worker: \$31/hr. X 6 social workers = \$186 • Physician: \$100/hr. • Healthcare administrator: \$33/hr. • POLST Expert: \$40/hr. 			
Total: \$1,358		Total: \$25,611	

Cost-Benefit Analysis and Return on Investment Estimations

$$CBA = \frac{\text{program benefits}}{\text{program costs}} = \frac{\$25611 \text{ savings}}{\$1358 \text{ program costs}} = \$18.86$$

For every dollar spent there is a \$18.86 cost savings for the patients and facilities.

$$ROI = \frac{\text{net program benefits} - \text{cost}}{\text{program costs}} = \frac{\$25611 - \$1358}{\$1358} \times 51 = 910\%$$

In a program size of 51 participants, there would be a 910% ROI.

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Conclusions

ACP/POLST training for health care workers improves health care workers' effectiveness, knowledge, and comfort with conducting ACP/POLST conversations and thereby improves patient outcomes. Encouraging POLST training for health care workers provides the necessary tools to effectively engage in ACP/POLST discussions.

The results indicated that, for 73% of the participants, this was the first standardized POLST education training they received and aligns with the literature reviewed. The majority of the participants were registered nurses followed by social workers. In many cases, nursing education is devoid of standardized education in ACP/POLST. While nurses and social workers are the preparers of most POLST forms, they may not be receiving proper education which could result in some POLST forms being invalid because the preparer did not have adequate education. Of the survey participants, 43% rarely had POLST conversations, perhaps due to their discomfort and the perception that POLST conversations were difficult. Participants' comfort improved by 32% during this project. As the literature reported, one reason health care workers defer completing POLST forms is lack of comfort and confidence with their own knowledge. Perceived effectiveness was improved by 21%; a change in perception could lead to change in behavior. Finally, health care workers' perceptions about the difficulty of POLST conversations was reduced by only 12%, yet this represented a hopeful sign that the change in perception could lead to a change in behavior. The results of this EBP project aligned with what research has suggested: standardized POLST training could improve the knowledge, confidence, and effectiveness of health care workers.

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Implications for Clinical Practice

With a gap in health care workers' knowledge about ACP and POLST, standardized POLST education for all health care workers could increase their knowledge, confidence, and effectiveness with facilitating POLST conversations, increase the number of properly-completed POLST forms, and improve patient care. Providers and all health care workers performing direct patient care need to engage with leadership and advocate for standardized POLST education programs in the workplace. Providers should seek out standardized POLST education and establish training for all their staff to ensure consistent end-of-life patient care.

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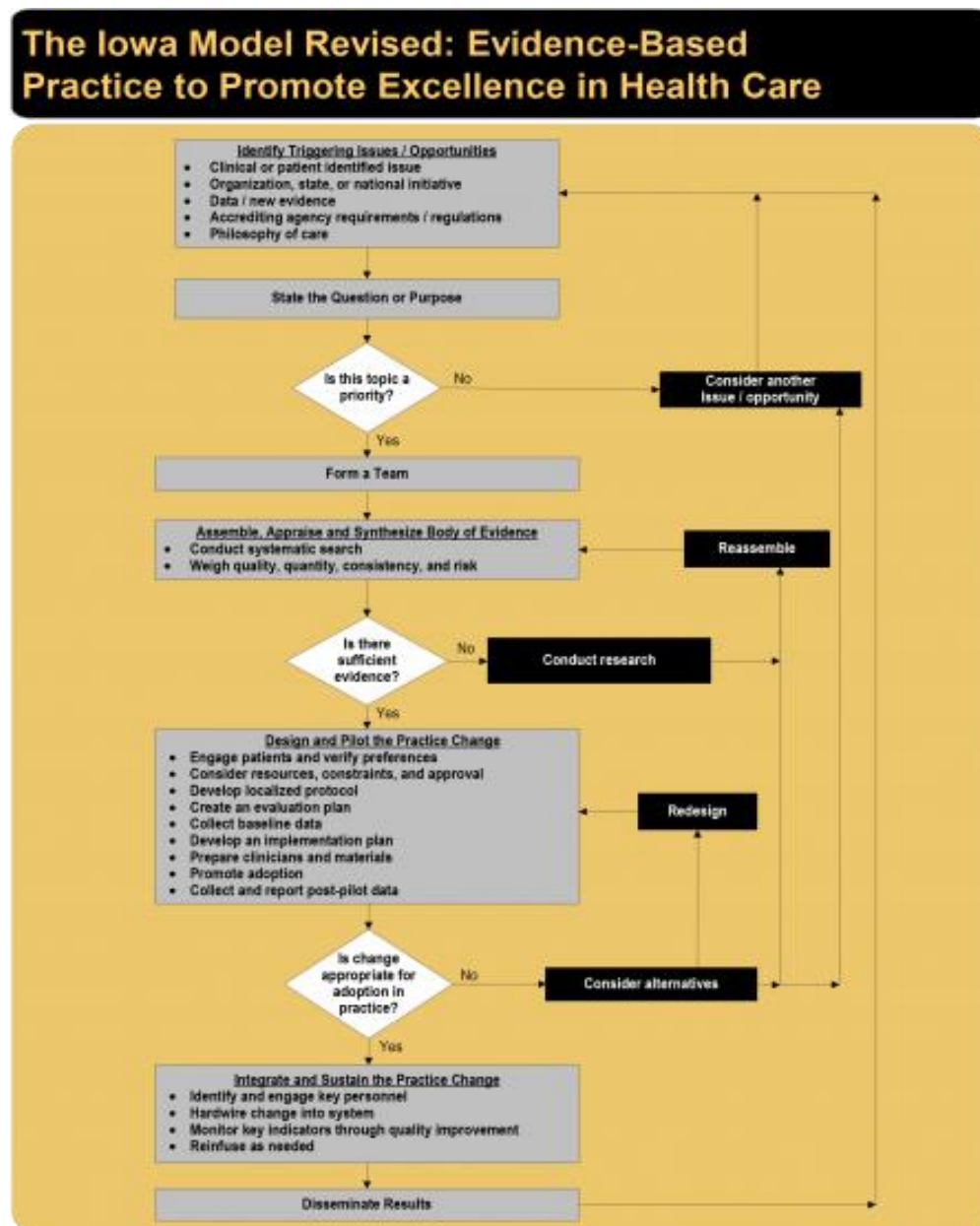
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Appendix A

The Iowa Model

STANDARDIZED EDUCATION ON PHYSICIAN ORDERS FOR LIFE SUSTAINING
TREATMENT(POLST) CONVERSATIONS



Note: Iowa Model Collaborative. (2017). Iowa Model of evidence-based practice: Revisions and validation. *Worldviews on Evidence-Based Nursing*, 14(3), 175-183. <https://doi.org/10.1111/wvn.12223>

Appendix B

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Advance Care Planning/POLST Training Survey



Advance Care Planning/POLST Training Effectiveness

Please answer the following questions to help the San Diego Coalition for Compassionate Care evaluate the effect of ACP/POLST training on your work with residents and patients. All responses are confidential and anonymous and will help us improve the quality of the training we offer.

<p>1. What is your professional role? (circle one) Social worker Case manager Admissions nurse Director MDS coordinator Other</p>
<p>2. Is this your first class on Advance Care Planning (ACP) or POLST? (circle one) Yes No</p>
<p>3. How often do you have ACP or POLST conversations with residents/patients or families? (circle one) Never At least once a month More than twice a month At least weekly More than 4 times a month</p>
<p>4. If you had previous training, do you believe that training prepared you adequately to have ACP/POLST conversations with residents/patients and families? (circle one) Yes No</p>
<p>5. On a scale of 1 (not confident) to 5 (very confident), please rate your comfort level with talking to residents/patients or families about wishes for life-sustaining treatment. (circle one) 1 2 3 4 5</p>
<p>6. On a scale of 1 (not effective) to 5 (very effective), please rate your effectiveness level at having and ACP or POLST conversation.</p> <p style="text-align: center;">1 2 3 4 5</p>

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7. When do you feel you are being most effective communicating about ACP/POLST with residents/patients or families?

8. Is it difficult to approach sensitive topics such as CPR, ventilators and tube feedings with residents/patients and families? (circle one) Yes No Sometimes

9. Do you believe you need additional training for ACP/POLST conversations by telehealth or remotely? (circle one) Yes No