

Nurses and the LAW: Legislative Advocacy Workshop aims to increase nurses' public policy
knowledge, skills, attitudes, and engagement

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Abstract

Background

The nursing profession has untapped potential for significant influence in the public policy arena.

Problem

Studies show that nurses are generally not involved or knowledgeable in legislative affairs (Mason, Nixon, et al., 2018; VandeWaa et al., 2019). At an academic medical center in the Pacific Northwest, there were no introductory-level opportunities for nurse education or involvement in legislative advocacy.

Methods

To assess outcomes, participants were surveyed immediately before (“Baseline Survey”), immediately after (“Post Survey 1”), and four months following the workshop (“Post Survey 2”). During those four months, the 2022 Oregon legislative session took place. Contingent on determination of normality, paired samples t-tests were performed on the differences between Baseline and Post Survey 1 subsection scores, as well as the differences between Baseline and Post Survey 2 scores.

Interventions

The intervention is a toolkit that includes a five-hour Legislative Advocacy Workshop for Nurses (LAW) and an associated Microsoft Teams site with resources. The aim is to increase nurses’ public policy knowledge, skills, attitudes, and engagement.

Results

There were significant, sustainable improvements in participants' public policy knowledge and skills following the workshop. However, there was no significant change in attitudes or engagement.

Conclusions

The findings around knowledge and skill demonstrate that a one-day workshop such as this could adequately prepare nurses to advocate in the legislative arena. The lack of significant change in attitudes and engagement was unexpected, and perhaps can be explained by the exclusion of stories about nurse-led initiatives and the fact that it was a short session.

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Introduction

The nursing profession has untapped potential for significant influence in the public policy arena. There are approximately 4 million registered nurses (RNs) in the United States, representing the largest sector of the healthcare workforce (Smiley et al., 2018). Collectively, nurses provide more hours of direct patient care than any other profession (Butler et al., 2018; Smiley et al., 2018). This substantial amount of clinical experience and patient interaction gives them valuable insight into public health issues and systemic healthcare inequities (Short, 2008; Woodward, 2016). In addition, nurses have been considered the most trusted profession for nearly two decades (Gallup, 2020). This integrous reputation provides RNs with a trusted, effective voice, well-suited for legislative advocacy (Woodward et al., 2016).

Through their education and clinical practice, nurses build additional skills that facilitate successful public policy involvement. Their strong problem-solving abilities allow them to both develop effective legislation and overcome oppositional challenges (Woodward et al., 2016). Experience working with diverse backgrounds prepares nurses to collaborate and negotiate with stakeholders (Woodward et al., 2016). Through direct patient contact, nurses develop a wide array of experiences that can be utilized as compelling stories in testimony. According to the American Nurses Association (ANA), RNs have the “authority to advocate” and are empowered to do so on multiple levels, including in local, state, and federal government (p. 24, 2015).

Problem Description

The ANA *Code of Ethics* (2015) has three provisions related to health policy, which detail the responsibility of the nurse to advance the profession and promote social justice through legislative involvement. The American Association of Colleges of Nursing (AACN, 2021) lists health policy as a “featured concept” in *The Essentials*, alongside clinical judgement and

evidence-based practice. The previous edition (AACN, 2008) concurs, and outlines recommended legislative course content. Despite the prominence of this topic in the most highly respected guidelines for nursing practice and education, studies show that nurses are generally not involved or knowledgeable in legislative affairs (Mason, Nixon, et al., 2018; VandeWaa et al., 2019).

This project took place at an academic, level-one trauma center located in the Pacific Northwest. It is comprised of both an adult and pediatric hospital that have converging reporting structures. As a public corporation and former state agency, this institution has retained its close relationship with state government. Yet, anecdotal evidence suggests that there is a lack of state-level legislative engagement by nurses at this organization. At a January 2021 hospital-wide nursing meeting, RNs expressed interest in opportunities for education and involvement in the subject. However, there were no groups or committees at the organization for introductory-level participation in public policy. The institution has an Office of Government Relations, which is the official resource for departments and employees when participating in government-related activities. There was a year-long legislative advocacy course for pediatric resident physicians, but no such class for nurses. This project aimed to develop and implement a legislative advocacy workshop for RNs at this institution, with the goal of increasing nurses' knowledge, skill, attitudes, and engagement in state-level legislative advocacy.

Available Knowledge

A literature review was performed to explore the subject of legislative advocacy in nursing. The search strategy used MeSH and key terms to conduct a comprehensive search of the literature. Multiple electronic databases were utilized, including PubMed, Science Direct, and Google Scholar. Additional articles were sought by manually searching the reference lists of

relevant studies. The focus of this review was on facilitators and barriers to nurse engagement in legislative advocacy, interventions to promote engagement, and instruments to measure outcomes. All articles included are peer-reviewed (except for one doctoral dissertation), written in English, and set in the United States.

Barriers to nurse participation in legislative advocacy

Traditional nursing education. The existing literature documents a wide range of barriers to nurse participation in public policy. Despite the AACN's health policy competencies (2021), there is consensus among the literature that nursing programs generally do not provide education that adequately prepares students for legislative advocacy (Taylor, 2016; Ellenbecker et al., 2017). Contributing factors include faculty not believing in the importance or relevance of public policy in nursing, lack of faculty prepared to teach this topic, and the challenge of including this subject matter in an already busy curriculum (Boswell et al., 2005; Des Jardin, 2001; Ellenbecker et al., 2017; Heiman et al., 2016).

Nursing practice and culture. Common perceptions, misconceptions, and apathy among nurses also serve as a barrier to engagement in legislative advocacy. Many nurses consider health policy to be unconnected to nursing practice and research, and believe it is not within their professional scope (Spenceley et al., 2006; Ellenbecker et al, 2017; Taylor, 2016). Boswell et al. (2005) stated that heavy workloads, poor staffing ratios, lack of time, and powerlessness in institutional settings create a general sense of political apathy within the nursing profession. VandeWaa et al. (2019) concurs that the nursing profession requires great devotion, which leaves limited time or energy for learning about and executing legislative advocacy. Taylor (2016) posits that public policy is not emphasized enough in the workplace.

External perceptions of the nursing profession. Nurses are often viewed as caregivers, not decision-makers, which can inhibit opportunities to participate in legislative advocacy. In a 2011 Gallup poll, executives in the academic, insurance, corporate, and healthcare services were surveyed for their opinions on nurses' potential for leadership (Khoury et al., 2011). A majority of respondents believed that nurses are not seen as significant decision-makers and do not generate enough revenue, as compared with physicians, which could limit opportunities for leadership (Khoury et al., 2011). However, most opinion leaders believed that nurses should have more influence in policy, and recommended that nurses make their voices heard, have higher expectations, and enhance their image, to accomplish this goal (Khoury et al., 2011).

Media plays an important role in both nursing perception and the setting of the legislative agenda (Mason et al., 2021). In 1997, a landmark study found that nurses were only cited in 4% of health news stories in leading print media sources (Sigma Theta Tau International, 1997). Twenty years later, those same publications only cited nurses 2% of the time, and nurses were never referenced for stories on health policy (Mason, Nixon, et al., 2018). Nursing is a female-dominated profession, and women in general are underrepresented in the media, comprising only 24% of news media sources in 2015 (Macharia, 2020). In addition, journalists reported not understanding the role of the nurse and often having to justify their use of nurses as a source to their editors (Mason, Glickstein, et al., 2018).

Low participation in professional nursing organizations. Professional nursing organizations facilitate legislative advocacy through education, exposure, and networking, but historically there is low member participation in these organizations (MacDonald et al., 2012; Woodward et al., 2016).

Facilitators of nurse engagement in legislative advocacy

Improvements to public policy curriculum in nursing education. First, a general increase in public policy content in baccalaureate, masters, and doctoral nursing programs would be facilitative (AACN, 2021; Benton et al., 2017; Ellenbecker et al., 2017; Rains & Carroll, 2000). The literature discusses various approaches to integration of this subject into the nursing curriculum, including electives that focus on the wide-ranging determinants of health, a specific course on the policy process, and active learning experiences in legislatures (Byrd et al., 2012; Rains & Carroll, 2000; Reutter & Williamson, 2000). Ellenbecker et al. (2017) proposes a detailed, staged approach to health policy in nursing education, with progression from the organizational level to local, state, and national policy level as the educational level increases.

Integration of public policy into workplace norms. Continuing education for practicing nurses can inform them of how public policy impacts their work and patient population, and can give them the confidence to participate in the process (Short, 2008; Taylor, 2016). Shared leadership and advancement programs in the workplace would facilitate nurse involvement in legislative advocacy (Taylor, 2016).

Professional nursing organizations. Professional organizations give nurses the opportunity for public policy education, networking, and advocacy (Roux et al., 2018; Woodward et al., 2016). Many organizations have professional lobbyists that advocate on behalf of their interests, and have committees dedicated to legislative advocacy.

MacDonald et al. (2012) recommends that nursing organizations provide educational materials, clear policy positions, and strategic selection of members for specific responsibilities, to enhance the policy efforts of members. *The Future of Nursing Report* goes a step further and advises all nursing organizations to create a shared agenda for addressing social determinants of health (National Academies of Sciences, Engineering and Medicine, 2021). Taylor (2016)

recommends that workplaces offer financial assistance for professional membership fees, to increase engagement.

Public policy mentors. Mentorship from experienced legislative advocates facilitates involvement in public policy (Benton et al., 2017; O'Rourke et al., 2017; Taylor, 2016).

O'Rourke et al. (2017) found a statistically significant association between relationships with a health policy mentor and internal efficacy in politics ($p < 0.001$). According to the results of a qualitative descriptive study, mentorship not only helped nurses develop political knowledge and skills, but also enhanced motivation and networking opportunities (Taylor, 2016). Sources agree that it is important for future interventions to promote mentoring partnerships (Benton et al., 2017; Taylor, 2016).

Examples of interventions in the nursing literature

In the nursing literature, there are four examples of educational interventions to facilitate legislative advocacy. The studies ranged from low to moderate levels of evidence (Byrd et al., 2013; Polit & Beck, 2016; Primomo & Bjorling, 2013; Rains & Carroll, 2000; Waddell et al., 2016). Three of the studies (Byrd et al., 2013; Primomo & Bjorling, 2013; Rains & Carroll, 2000) follow a quasi-experimental design with a one-group, non-randomized, pre-test, post-test design. The fourth article (Waddell et al., 2016) is qualitative. Primomo and Bjorling (2013) and Byrd et al. (2012) both found a statistically significant increase in political astuteness, after a lobby day and after a public health course (Clark, 2008). Rains and Carroll (2000) focused on classroom education and found significant improvement in the political competence of graduate nursing students after a health policy course. Waddell et al. (2016) describes a health policy group at Boston Children's Hospital, which was a collaborative effort between nurses, nursing executives and the government relations department. Although a measurement tool was not

utilized, the authors report the resultant legislative endeavors of participants (Waddell et al., 2016). There is variation in the interventions and measurement tools used in these four studies. Three out of four use a pre-test, post-test design, with no focus on measurement of long-term actions (Byrd et al., 2013; Primomo & Bjorling, 2013; Rains & Carroll, 2000). Other limitations include the small, or unreported, convenience samples of three of the studies (Byrd et al., 2013; Primomo & Bjorling, 2013; Waddell et al., 2016) and the uncertain applicability of political astuteness (Byrd et al., 2013; Primomo & Bjorling, 2013). Waddell et al. (2016) recommends that similar hospital-based initiatives partner with government relations, identify a single issue to start with, and secure support from the organization's leadership.

Instruments

In the nursing literature, 10 self-assessment instruments related to public policy were identified. An overview of these tools, including their validity and reliability, is provided in Table 1. These instruments were specifically created for use within the nursing population. This is believed to be a comprehensive list of the available tools.

Rationale

The institutional setting of this project does not have introductory-level legislative advocacy opportunities for registered nurses. Public policy is largely absent from the nursing workplace culture. Although many nurses advocate for patients within the shared governance structure, education on health policy participation would strengthen their organizational-level efforts and facilitate government-level advocacy.

Specific Aim

The purpose of this project is to create a toolkit, comprised of resources and a workshop, to increase knowledge, skills, attitudes, and engagement in state-level legislative advocacy

among nurses at the chosen institution. A pretest (“Baseline Survey”), posttest (“Post Survey 1”), and follow-up test (“Post Survey 2”) will be used to assess these outcomes. The changes in scores from Baseline Survey to Post Survey 1 and Baseline to Post Survey 2 will be measured.

Methods

Context

This project was completed at an academic medical center with 411 adult and 151 pediatric beds, located in the Pacific Northwest region of the United States. In 2019, prior to the COVID-19 pandemic, this hospital saw 28,287 admissions and 30,040 emergency room visits. The same year, it had a statewide economic impact of \$7.2 billion and directly employed 18,480 individuals. The institution employs 2,400 nurses and operates under a Magnet-designated, shared governance structure. As a public corporation and former state agency, it has retained its close relationship with state government. The Office of Government Relations manages this relationship and selects the priority bills each session, with a committee of institutional leaders. Currently, there are no groups or committees at this organization for introductory-level participation in legislative advocacy. There is a year-long public policy course for resident physicians, but no such educational or experiential opportunities for nurses.

Participants

All nurses employed by this institution, including RNs and APRNs, were eligible to participate in the workshop. Several methods were used to recruit participants:

- An announcement was posted in the organization’s monthly nursing newsletter.
- A notification was posted on the institution’s online news platform.
- The workshop was announced at a nursing leadership meeting, which was comprised of nurse managers and staff leaders from across the organization. Members were asked to

communicate news of this workshop to staff on their individual units, administrative leadership email lists, and at cluster meetings.

- News of the class was shared at a meeting of a local pediatric nursing professional organization.
- The project leader encouraged nurses to sign up by word of mouth.
- The workshop was approved for 4.5 Nursing Continuing Professional Development (NCPD) hours, as an incentive for participation.
- A webpage was created on the organization's internal website. This contained a link to the registration page, information about the workshop, speaker biographies, an agenda, optional preparation instructions (e.g., which bills would be the subject of the mock hearing), NCPD contact hours, and contact information.
- A registration page was created on Eventbrite, and a \$10 fee was instituted to discourage those who signed up from "no showing." The capacity was originally limited to 20 nurses, due to the mock hearing portion of the workshop. A waitlist was created to allow for easy filling of cancelations.

Closer to the date of the workshop, additional expert panelists were recruited for the mock hearing portion, which allowed all on the waitlist to be invited. In total, there were 31 nurses signed up to attend the workshop.

Interventions

A legislative advocacy workshop for nurses at the project site was offered in November 2021, and an associated Microsoft Teams site was created to share resources with participants for future reference. The class was co-taught by a pediatric clinical nurse and a pediatrician. The pediatric nurse has legislative advocacy experience and is involved in the hospital's shared

governance structure. She is also a student in the Pediatric Nurse Practitioner Doctor of Nursing Practice Program at the institution's School of Nursing. The pediatrician has more than a decade of advocacy experience and serves as a resource to many state legislators regarding child-health related information. He is the Chair of the American Academy of Pediatrics Council on Injury, Violence, and Poison Prevention, teaches the aforementioned legislative advocacy course for resident physicians, and is a member of the institution's Government Relations bill selection committee.

The educational approach in the workshop was guided by Social Cognitive Theory (SCT) (Bandura, 1977). SCT has six constructs (Boston University School of Public Health [BUSPH], 2019):

- Reciprocal determinism: the foundational construct of SCT, which postulates that learning occurs with reciprocal interactions between the person, environment, and behavior.
- Behavioral capability: an individual's ability to perform a behavior, given their knowledge and skills.
- Observational learning: if a person witnesses successful examples of a behavior, they can reproduce those behaviors.
- Reinforcements: positive or negative responses to a person's behavior that influence the likelihood of sustaining the behavior.
- Expectations: anticipated outcomes of a person's behavior, which are largely based on one's past experiences, can affect whether the behavior is successfully completed.

- Self-efficacy: an individual's belief in their own ability to effectively perform a behavior, based on their specific skills, individual characteristics, and environmental factors (i.e., barriers and facilitators).

In the context of this project, the “environment” is the healthcare system, and the “behavior” is legislative advocacy. Both the educational materials and the mock hearing portion promoted behavioral capability by enhancing knowledge and skills. Examples of successful legislative advocacy by nurses, including a guest appearance from a nurse and current state legislator, facilitated observational learning. The educators provided positive reinforcement when participants share their example testimonies during the mock hearing. Ultimately, the project goal of enhancing nurse knowledge, skills, and attitudes toward legislative advocacy aligns with the SCT goal of promoting self-efficacy. Limitations of this framework include potential overreliance on the effectiveness of environmental changes and underestimation of the importance of emotion (BUSPH, 2019).

The workshop was divided into the following sections: Introduction, Legislative Basics, Institutional Policies, Why Nurses?, Communication Principles, Legislative Meetings and Education, Testimony, Testimony Writing Session, Mock Hearings, and Q&A (Table 2). The pediatric nurse and the pediatrician were the primary facilitators of the workshop, but guest speakers and mock committee members included two members of the institution's Government Relations staff, an Oregon State Representative who is also a nurse practitioner, a former Oregon Senate Majority Leader, a former professional lobbyist, and a graduate nursing professor.

Study of the Interventions

The effectiveness of the intervention was evaluated with a modified pretest-posttest design (Figure 1). Participants took the Baseline Survey immediately before the workshop, and

Post Survey 1 immediately after the workshop. Post Survey 2 was administered four months later, after the 2022 Oregon Legislative Session, to assess both engagement and sustainability of the learning.

Measures

The Political Astuteness Inventory (PAI) and the Oden survey were used to measure outcomes (Clark, 2008; Oden et al., 2000). The PAI was selected because it assesses nurse knowledge regarding public policy, with political astuteness as a proxy for knowledge. Primomo (2007) states that similarities between questions on the PAI and other political measurement tools demonstrate content validity. Primomo & Bjorling (2013) calculate Cronbach's α for the PAI, which was 0.989 on the pre-test ($n = 60$) and 0.939 on the post-test ($n = 34$), indicating that the tool has internal consistency reliability ($\alpha \geq 0.7$ is considered acceptable) (Taber, 2017). The Oden survey was selected because it assesses skills, attitudes, and engagement. It consists of four subscales: Self-Efficacy Expectations for Public Policy Involvement, Outcome Expectations for Public Policy Involvement, Barriers and Benefits of Public Policy Involvement, and Public Policy Activities. Content validity was assessed by a panel of three experts in public health policy and three experts in self-efficacy theory (Oden et al., 2000). Construct validity was evaluated with principal components analysis with varimax rotation (Oden et al., 2000). For stability reliability, Pearson r correlation coefficients were calculated for each subscale and results ranged from 0.5-0.76, which fall into the "good" range (Fleiss, 1986). As for internal consistency reliability, Cronbach's α ranged from 0.5 to 0.74 among the subscales (Oden et al., 2000). The index scores for this measure are debated, but many studies cite 0.7 as the threshold for "good" (Taber, 2017). Oden et al. (2000) did not identify which survey had a Cronbach's α of 0.5, but this means that one of the subscales may be somewhat limited in its internal consistency

reliability (Oden et al., 2000). However, the validity of the 0.7 threshold is debated, and there are a limited number of relevant tools to select from in the nursing literature (Taber, 2017).

The survey utilized for outcome evaluation in this project can be seen in Table 3, with one sample question provided from each subsection. Minor modifications were made to three questions from the PAI. “In the Oregon Legislature” was added to two questions to clarify what was meant by “state senator [or representative].” Another question that asked about the location of voting precincts was changed to “I know how to cast my vote in Oregon (i.e., voting booth or mail-in),” because Oregon has a vote-by-mail system and does not have voting precincts. The Oden Policy Activities subsection was only included in the Baseline Survey and Follow Up Survey 2, as the answers would not change within a five-hour workshop period. Table 4 lists which survey subsections were used to evaluate each component of the project’s aim. Knowledge was assessed with the PAI, with political astuteness being a proxy for participant’s knowledge. Skills were evaluated using the Oden Efficacy Expectations subscale, with the title “self-efficacy” being used to describe skills as evaluated by oneself (Oden et al., 2000). Attitudes toward expected impact of advocacy were assessed with the Oden Outcome Expectations subscale. Engagement was measured with the Oden Public Policy Activities subscale. The Oden Barriers and Benefits subscale was administered to participants, but the results were excluded from this analysis for clarity, due to limited utility in addressing the aim.

Data collection

The demographic questions, PAI, and Oden survey were merged and administered immediately before the workshop (“Baseline Survey”). As depicted in Figure 1, the PAI and Oden survey (except for the Oden Policy Activities subsection) were administered immediately after the workshop (“Post Survey 1”). The PAI and Oden survey were administered again four

months following the workshop, which was also after the conclusion of the 2022 Oregon legislative session (“Post Survey 2”). A unique identifier was created by each participant, to pair their scores without sacrificing anonymity. Survey responses were compiled in Qualtrics and analyzed using the Statistical Package for the Social Sciences (SPSS).

Data processing

Processing Knowledge Data. The PAI answer choices were true or false. To quantify the answers for scoring, one point was applied for an answer of “true” and zero points were applied for an answer of “false” (Table 3).

Processing Skill Data. For the Oden Self-Efficacy Expectations subsection, respondents were asked to rate their ability to perform specific policy activities on a five-point Likert scale (Table 3). In order to quantify the results, answers were converted into numeric values as follows: Not at all confident = 0, Only slightly confident = 1, Somewhat confident = 2, Moderately confident = 3, and Very confident = 4, and a total subsection score was calculated for each participant.

Processing Attitude Data. For the Oden Outcome Expectations for Public Policy Involvement subsection, respondents were asked to rate the amount of impact specific activities would have on policymakers’ actions at the state level (Table 3). These answers were converted to numeric values as follows: Little impact = 0, Only slight impact = 1, Some impact = 2, Moderate impact = 3, Considerable impact = 4, and each participant was given a total score.

Processing Engagement Data. The Oden Public Policy Activities subsection was a discrete list of 17 activities from which the respondent chose all that applied and received one point for each activity selected (Table 3).

The PAI, Oden Efficacy Expectations, Oden Outcome Expectations, and Oden Policy Activities subscales were each scored by adding up the sum of the answers. In anticipation of a paired t-test methodology, the individual scores of the aforementioned subscales were classified into a Baseline Survey-Post Survey 1 Group (“Comparison 1”) and a Baseline Survey-Post Survey 2 Group (“Comparison 2”), as shown in Figure 2.

Demographics

The demographic survey gathered information regarding participants’ gender, sexual orientation, race/ethnicity, age, highest degree, years of experience, practice setting, and specialty certification (Table 3).

Analysis

Inclusion and exclusion criteria

Responses of individuals who did not complete the Baseline Survey or who only completed one survey were excluded from the analysis all together, as there would not be a reference point for a pairwise comparison. Within Comparison 1, the responses of individuals who did not complete Post Survey 1 were removed, as there would be nothing to pair their Baseline Survey with. For the same reason, within Comparison 2, the scores of individuals who did not complete Post Survey 2 survey were excluded. There was a total of 21 unique survey respondents. Based on these criteria, seven responses were excluded from the analysis, as those responses could not be paired. This left a sample of 15 unique respondents for the analysis.

Demographic analysis

Descriptive statistics were used to analyze the demographic information.

Preliminary assessment of normality

Paired samples t-tests were used to analyze the difference between Baseline and Post Survey 1 PAI, Oden Self-Efficacy, and Oden Outcome Expectations scores (i.e., “Comparison 1” in Figure 2). Paired t-tests were also used to evaluate the difference between Baseline and Post Survey 2 PAI, Oden Self-Efficacy, Oden Outcome Expectations, and Oden Policy Activities scores (i.e., “Comparison 2” in Figure 2). The paired t-test assumes that the differences between pairs are normally distributed. To evaluate for normality, the differences between pairs were calculated by subtracting Baseline Survey subscale scores from Post Survey 1 subscale scores and by subtracting Baseline Survey subscale scores from Post Survey 2 subscale scores, and then performing a Shapiro-Wilk test on each set of differences.

Measurement of change in knowledge

The PAI was used to assess nurses’ knowledge regarding legislative advocacy. Contingent on a determination of normality, a paired samples t-test was performed on the difference between Baseline and Post Survey 1 PAI scores, and the difference between Baseline and Post Survey 2 PAI scores. The goal of the paired t-test was to measure change in knowledge in the immediate period following the workshop (Comparison 1) and determine whether this change was sustained four months after the workshop (Comparison 2). If the two-tailed p is < 0.05 , this would indicate that there was a statistically significant change in PAI scores. The t-test output mean (M_{diff}) represents the mean of the differences between the pairs. The t statistic (t) is the ratio of M_{diff} to the standard error of the difference (University of California Los Angeles [UCLA], 2021). The sign of the t-value (i.e., negative or positive) demonstrates the direction of change in scores. A positive t-value would indicate an increase in PAI scores following the workshop, while a negative t-value would indicate a decline in scores. The t-value is traditionally reported alongside the degrees of freedom (df), which is the number of observations (n) minus 1

(UCLA, 2021). A positive t-value and $p < 0.05$ would indicate a statistically significant improvement in PAI scores, and thereby public policy knowledge, following the workshop.

To visualize the results, the Comparison 1 PAI M_{diff} was placed on a bar graph with error bars. Each bar on the x-axis represented a subscale, and M_{diff} was plotted on the y-axis. The same was done for the Comparison 2 PAI M_{diff} . If the bars were > 0 on the y-axis, this would indicate an increase in scores, while bars $y < 0$ represented a decrease in scores. Error bars depicted the 95% confidence interval (CI). If the error bar crossed $y = 0$, this would indicate that the change in score for that subsection was not statistically significant.

Measurement of change in skills

Nurses' legislative advocacy skills were evaluated with the Oden Self-Efficacy Expectations subscale. Contingent on a determination of normality, a paired samples t-tests were performed on the difference between Baseline and Post Survey 1 Oden Self-Efficacy scores, and the difference between Baseline and Post Survey 2 Oden Self Efficacy scores. The goal of the paired t-test was to measure change in nurses' skill in the immediate period following the workshop (Comparison 1) and determine whether this change was sustained four months after the workshop (Comparison 2). If the two-tailed p is < 0.05 and the t-value is positive, this would indicate that there was a statistically significant improvement in Oden Self-Efficacy scores, thereby demonstrating significant improvement in nurses' legislative advocacy skills. To visualize the results, the Comparison 1 Oden Self-Efficacy M_{diff} and the Comparison 2 Oden Self-Efficacy M_{diff} were each placed on bar graphs with error bars (95% CI).

Measurement of change in attitudes

Nurses' attitudes regarding the expected impact of certain policy actions were evaluated with the Oden Outcome Expectations subscale. Contingent on a determination of normality,

paired samples t-tests were performed on the difference between Baseline and Post Survey 1 Oden Outcome Expectations scores, and the difference between Baseline and Post Survey 2 Oden Outcome Expectations scores. The goal of the paired t-test was to measure change in nurses' attitudes in the immediate period following the workshop (Comparison 1) and determine whether this change was sustained four months after the workshop (Comparison 2). If the two-tailed p is < 0.05 and the t-value is positive, this would indicate that there was a statistically significant improvement in Oden Outcome Expectations score, and thereby significant improvement in nurses' attitudes. To visualize the results, the Comparison 1 Outcome Expectations M_{diff} and the Comparison 2 Oden Outcome Expectations M_{diff} were each placed on bar graphs with error bars (95% CI).

Measurement of change in engagement

Nurses' engagement in public policy activities was assessed with the Oden Policy Activities subscale. Contingent on a determination of normality, a paired samples t-test was performed on the difference between Baseline and Post Survey 2 Oden Policy Activities scores. The goal of the paired t-test was to measure change in policy engagement within the four months after the workshop (Comparison 2). If the two-tailed p is < 0.05 and the t-value is positive, this would indicate that there was a statistically significant improvement in Oden Policy Activities score, thereby demonstrating a significant increase nurse engagement in legislative advocacy. To visualize the results, the Comparison 2 Oden Policy Activities M_{diff} was placed on a bar graphs with an error bar (95% CI).

Ethical Considerations

The OHSU Investigational Review Board designated this work as a quality improvement (QI) project (Appendix C). Participation was voluntary. The clinical site provided a signed letter

of support for the project (Appendix D). Nurses were informed verbally and in writing on multiple occasions, including at the start of the workshop, that by attending they would be giving their approval to participate in a QI project. They were also informed that survey responses would be statistically analyzed and potentially published. Survey respondents' names were kept anonymous, and scores were linked by a unique identifier.

Results

Analysis

All assumptions for paired t-tests were confirmed prior to running the analysis.

Demographics

The demographic questions in the Baseline survey gathered information regarding participants' gender, sexual orientation, race/ethnicity, age, highest degree, years of experience, practice setting, and specialty certification. Descriptive statistics were used to depict this information (Table 5). The average LAW participant was female, 41 years old, and had 13 years of nursing experience. The three most common practice settings were inpatient pediatrics, inpatient adult, and administration.

Measurement of change in knowledge

To assess for change in nurses' knowledge regarding legislative advocacy, paired samples t-tests were performed on both the difference between the Baseline Survey and Post Survey 1 PAI scores (Table 6) and the difference between Baseline Survey and Post Survey 2 PAI scores (Table 7). As shown in Table 8, there was a statistically significant increase in PAI scores between the Baseline Survey and Post Survey 1 ($M_{diff} = 5.929$, $SD 4.287$, $t(13) = 5.2$, $p = <0.001$). This indicates that there was significant improvement in nurses' public policy knowledge immediately following the workshop. There was also a statistically significant

increase in PAI scores from baseline to four months after the workshop ($M_{\text{diff}} = 8.1$, $SD = 5.99$, $t(9) = 4.3$, $p = 0.002$; Table 8). This demonstrates that significant improvement in nurses' legislative advocacy knowledge was sustained for at least four months following the workshop.

Measurement of change in skill

To measure change in nurses' public policy skills, paired samples t-tests were applied to both the difference between the Baseline Survey and Post Survey 1 Oden Self-Efficacy scores (Table 6) and the difference between Baseline Survey and Post Survey 2 Oden Self-Efficacy scores (Table 7). As shown in Table 9, there was a significant increase in Oden Self-Efficacy scores from baseline to immediately following the workshop ($M_{\text{diff}} = 3.857$, $SD = 6.075$, $t(13) = 2.4$, $p = 0.034$). This demonstrates significant improvement in public policy skills immediately following the workshop. There was also a significant increase from Baseline Survey Oden Self-Efficacy scores to Post Survey 2 scores ($M_{\text{diff}} = 4$, $SD = 4.137$, $t(9) = 3.1$, $p = 0.014$; Table 9), which indicates that significant improvement in nurses' legislative advocacy skill was sustained for at least four months following the workshop.

Measurement of change in attitudes

To measure change in nurses' attitudes regarding legislative advocacy, specifically expected outcomes, paired samples t-tests were applied to both the difference between the Baseline Survey and Post Survey 1 Oden Outcome Expectations scores (Table 6) and the difference between Baseline Survey and Post Survey 2 Oden Outcome Expectations scores (Table 7). As shown in Table 10, change in these scores was not statistically significant, so the workshop did not have a significant impact on nurses' attitudes regarding legislative advocacy.

Measurement of change in engagement

To assess for change in nurses' public policy engagement, paired samples t-tests were performed the difference between Baseline Survey and Post Survey 2 Oden Policy Activity scores (Table 7). During this four-month period, the 2022 Oregon Legislative Session took place for 35 days. On Post Survey 2, there was not a significant change from baseline in the number of public policy activities that nurses had participated in (Table 11). Thus, the workshop did not produce a significant change in nurses' public policy engagement within a four-month period.

Visualization of change in knowledge, skills, and attitudes from Baseline Survey to Post Survey 1

To visualize the changes in knowledge, skills, and attitudes from baseline to immediately after the workshop, a bar graph (Figure 3) was created using the Comparison 1 M_{diffs} . As shown in the graph, the M_{diffs} in Comparison 1 scores for the PAI, Oden Self-Efficacy, and Oden Outcome Expectations subscales were above $y = 0$, which is consistent with a positive change in scores. However, only the improvements in PAI scores and Oden Self-Efficacy scores were statistically significant, as the error bars did not cross $y = 0$. This indicates significant improvement in policy knowledge and skills immediately following the workshop. The Oden Outcome Expectations error bar crossed $y = 0$, so this change was not statistically significant. Thus, the workshop did not have a significant impact on nurses' attitudes regarding legislative advocacy.

Visualization of Change in Knowledge, Skills, Attitudes, and Engagement from Baseline Survey to Post Survey 2

To visualize the change in knowledge, skills, attitudes, and engagement from baseline to four months after the workshop, a bar graph was created using the Comparison 2 M_{diffs} (Figure 4). As shown in Figure 4, the M_{diffs} of Comparison 2 scores for the PAI, Oden Self-Efficacy,

Oden Outcome Expectations, and Oden Policy Activities scores were above $y = 0$. This shows that four months after the workshop there was a mean increase in scores from baseline. The error bars for the Comparison 2 PAI and Oden Self-Efficacy scores did not cross $y = 0$, which means that the increase was statistically significant. Thus, Figure 4 shows that four months after the workshop there was still significant improvement in legislative advocacy knowledge and skills from baseline, which indicates sustained learning. However, the error bars for the Oden Outcome Expectations scores and Oden Policy Activity scores crossed zero on the y-axis, which demonstrates that the change in these scores was not statistically significant. This implies that the workshop did not produce significant improvement in policy attitudes or engagement by four months post.

Discussion

Summary and Interpretation

Key findings

Knowledge. The PAI assessed nurses' legislative advocacy knowledge. There was statistically significant improvement in PAI scores immediately following and four months after the workshop. This demonstrates that, not only did the workshop enhance nurses' public policy knowledge, but that learning was sustained for at least four months after, regardless of political engagement. These findings were expected, as the workshop content included lessons about how a bill becomes a law, how to identify one's representatives, etc., which contribute to nurses' knowledge of the legislative arena. These results could indicate that a single workshop, and specifically the content of this workshop, could produce sustainable gains in knowledge that are necessary for introductory-level legislative engagement.

These results are consistent with the findings of Byrd et al. (2012), Rains & Carroll (2000), and Primomo (2007), who each used the PAI to demonstrate that educational courses on health policy increase political astuteness of graduate nursing students. Primomo & Bjorling (2013) found an increase in political astuteness (i.e., PAI scores) one month after a legislative day. This QI project differs from the literature as it is the first to find significant change after a single, five-hour educational intervention, as opposed to a multi-week course (Byrd et al., 2012; Primomo, 2007; Rains & Carroll, 2000) or legislative day (Primomo & Bjorling, 2013). In addition, the findings demonstrate the sustainability of learning over a longer period (four months) than previous studies (Byrd et al., 2012; Primomo, 2007; Primomo & Bjorling, 2013; Rains & Carroll, 2000).

Skills. Legislative advocacy skills were assessed using the Oden Self-Efficacy Expectations subscale. There was a statistically significant increase in Oden Self-Efficacy scores on Post Survey 1 and Post Survey 2. Thus, the workshop was associated with significant, sustained improvement in policy skills. This was expected, given the learning content on persuasive communication, elevator pitches, and testimony, as well as the opportunity for practice testimony during the mock hearing portion.

According to SCT, behavioral capability is an individual's ability to perform a behavior, given their knowledge and skills (BUSPH, 2019). The significant improvement in skills, as well as the significant gains in knowledge discussed above, demonstrate increased behavioral capability among workshop participants. Thus, workshops such as this could considerably increase nurses' ability to advocate in the legislative arena.

Attitudes. The Oden Outcome Expectations subscale was used to evaluate attitudes, as it measured the expected impact of certain policy activities. SCT defines expectations as

anticipated outcomes of a person's behavior, which are largely based on one's past experiences, and can affect whether the behavior is successfully completed. Thus, attitudes are an important component, as they influence the likelihood of successful policy engagement. Workshop faculty attempted to address the role of past experiences by providing positive reinforcement after the mock hearing. However, the increases in scores on Post Survey 1 and Post Survey 2 were not statistically significant. Thus, the workshop did not have a significant impact on nurses' attitudes about outcome expectations. This result was unexpected, as it was anticipated that the workshop would result in significant improvement in attitudes. This workshop included a guest appearance from a nurse legislator, to show an example of nurse leadership in the policy arena. However, stories of successful nurse-led initiatives were cut due to time constraints. Perhaps in the future, adding these examples back in would improve attitudes, as participants would see how bedside nurses can lead change, and how great of a contribution a single action can make.

Engagement. The Oden Policy Activity subscale was used to measure engagement in the legislative arena. In the four months following the workshop, there was not a statistically significant increase in the amount of policy involvement among participants. This was an unexpected result, as the workshop was designed to ultimately promote engagement. However, during this four-month timeframe, the primary opportunity for action was through the 2022 short session, which lasted only 35 days (vs. the 160-day regular session) and offered a far smaller selection of bills. It is notoriously challenging to engage in the short session as a citizen, due to the fast-paced nature, which requires great flexibility. In addition, with fewer bills to choose from, some participants may not have found one that was of interest to them or relevant to their area of expertise.

Project strengths

The LAW is the first example of a single-day educational intervention, as the literature is limited to multi-week courses (Byrd et al., 2012; Primomo, 2007; Primomo & Bjorling, 2013; Rains & Carroll, 2000). This is particularly beneficial with a population of nurses, who typically have varied and inflexible work schedules. In addition, this project re-evaluated outcomes over a longer period than previous studies (Byrd et al., 2012; Primomo, 2007; Primomo & Bjorling, 2013; Rains & Carroll, 2000).

Aside from the findings of the statistical analysis, this project resulted in other positive outcomes. The successful response to the LAW demonstrated to organizational leadership the value and interest of nurses in legislative advocacy. As a result, nurses were invited to join and co-teach the inaugural cohort of a year-long community health and advocacy course, which was originally only open to physicians and psychologists. This also led to the approval of the children's hospital's first legislative advocacy committee.

Limitations

One limitation was the small sample size, which was taken from a single site. Outcomes were not assessed beyond four months, which may be a limitation when assessing the sustainability of learning. However, this project assessed outcomes longer than any previous study obtained in the literature review. Due to COVID-19 restrictions, both the workshop and legislative session were virtual, which can act as a barrier to learning and engagement. However, it can also facilitate engagement by improving accessibility. The short nature of the 2022 Oregon legislative session was also a limitation, as previously discussed.

The framework used to guide the educational approach to the LAW, SCT, has its own limitations. There is limited focus on emotion and motivation, aside from learner's past experiences (BUSPH, 2019). The workshop attempted to compensate for this by showing

powerful speeches (such as a congressional testimony from a survivor of the Pulse nightclub shooting) and vivid imagery (professional photography of the capitol), to emotionally inspire and motivate learners.

Conclusions

This work is beneficial because it takes steps towards promoting nurse engagement in the legislative process. The intervention successfully increased knowledge and skills, which should translate into an ability to advocate in the public policy arena. Another LAW is planned for Fall 2022. At this workshop, examples of successful nurse-led initiatives will be shared, with the aim of improving nurses' attitudes about the expected outcomes of participation. In addition, the co-lead teachers of the LAW will be the co-chairs of the new children's hospital legislative advocacy committee. This group will serve as a formal way to support nurse engagement in the legislative process. Furthermore, the 2023 Oregon session is a regular session, which will provide more opportunities for citizen engagement.

One area for future research is the development of an updated instrument that directly measures nurse knowledge and has a focus on state-level legislative advocacy. However, that is beyond the scope of this DNP project.

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Appendix A

Tables

Table 1*Public policy-related self-assessment tools from the nursing literature*

Tool	Answer format	Validity	Reliability
Political Astuteness Inventory (Clark, 2008)	Dichotomous scale (yes/no)	Content validity: Based on similarity of instrument items to other political assessment tools (Primomo & Bjorling, 2007).	Cronbach's α was 0.989 in pre-test (n = 60) and 0.939 in post-test (n = 34) (Primomo & Bjorling, 2013).
Political Expectations and Participation Questionnaire (Daffin, 1988)	5-point Likert scale; Dichotomous scale (yes/no, male/female); Multiple choice; Written response	Content validity: Used a panel of nurses with expertise in political knowledge	Cronbach's α was 0.98 for the expectation items and 0.96 for the participation items (n = 190) (Daffin, 1988)
Lewinski and Simmons (2018) survey	5-point Likert scale; Multiple choice; Ranking; Open-ended	Face and content validity through discussions between authors and practicing nurses.	For "current and planned engagement in health policy advocacy activities" section, Cronbach's α was 0.86. For "current interest in participation in a health policy advocacy continuing education program" section, Cronbach's α was 0.88. (n = 84) (Lewinski & Simmons, 2018)
Trust in Government Index (Sharoni, 2012)	5-point scale, where 1 = a great deal, 2 = a fair amount, 3 = somewhat, 4 =		Cronbach's α was 0.881 (n = 915) (Sharoni, 2012)

	not very much, 5 = none at all		
Efficacy Index (Sharoni, 2012)	5-point scale, where 1 = completely agree, 2 = somewhat agree, 3 = do not agree or disagree, 4 = somewhat disagree, 5 = completely disagree		Cronbach's α was 0.775 (n = 915) (Sharoni, 2012)
Policy Advocacy Engagement Scale (Jansson et al., 2017)	5-point frequency scale	Content validity: I-CVI for each item was \geq 0.86 S-CVI was 0.93 Construct validity: Chi-square was 27.207(12) CFI was 0.92 RMSEA was 0.07 (Jansson et al., 2017)	Cronbach's α was 0.93 (n = 50) (Jansson et al. 2017)
Waddell Spectrum for Policy Participation, Influence and Research (WSPPIR) (Waddell, 2021)		Face validity Content validity: S-CVI/Ave was 0.87 Construct validity Factor loadings \geq 0.6	Cronbach's α was 0.78 (n = 306), but of the individual subscales, the <i>Influence Skills</i> fell short at a Cronbach's α of 0.64.
Oden et al. (2000) survey	5-point Likert scales; True or False; Select all that apply	Content validity: Panel of three experts in public health policy and three experts in self-efficacy theory Construct validity: Factor loadings	Cronbach's α ranged from 0.50 to 0.74 among the subscales.
Vadenhouten et al. (2011) survey	3-point Likert scales	Content validity:	Cronbach's α was 0.95 (n = 468).

		Expert panel of politically active nurses and political science faculty reviewed the instrument.	
Students' Perceived Competencies in Health Policy Essential Elements (Thomas et al., 2020)	4-point Likert scale (1 = not at all prepared, 4 = fully prepared)	Face validity based on health policy education literature.	Not calculated.

I-CVI = Item Content Validity Index

S-CVI = Scale-level Content Validity Index

RMSEA = Root-mean-squared error of approximation

CFI = Comparative fit index

Table 2
Workshop agenda

Time	Topic	Presenter(s)
0900 – 0920	Introduction	Pediatric Nurse; Pediatrician
0920 – 0945	Legislative Basics	Pediatric Nurse
0945 – 0950	Institutional Policies	Pediatrician; Institutional Government Relations Staff Member
0950 – 1000	Break	
1000 – 1020	Why Nurses?	Pediatric Nurse; Oregon State Representative/Nurse Practitioner
1020 – 1035	Communication Principles	Pediatric Nurse; Pediatrician
1035 – 1045	Break	
1045 – 1055	Legislative Meetings and Education	Pediatrician
1055 – 1120	Testimony	Pediatric Nurse
1120 – 1220	Testimony Writing Session	
1220 – 1230	Break	
1230 – 1330	Mock Hearings	Pediatric Nurse; Pediatrician; Former Oregon Senate Majority Leader; Professional Lobbyist; Graduate Nursing Professor; Institutional Government Relations Staff Member
1330 – 1350	Q&A with Expert Panel	Former Oregon Senate Majority Leader; Professional Lobbyist; Institutional Government Relations Staff Member

Table 3*Workshop Survey Subscales, Questions, Answer Choices, and Converted Answers*

Survey Subscale	Sample Question	Sample Answer Choices	Converted Answers for Data Analysis
Unique Identifier	<i>To keep your responses anonymous while allowing us to link your answers, please follow these instructions to create a unique identifier. You will use this same identifier in each of the three surveys.</i>		
	First letter of your mother's first name	Free text	
	First letter of your father's first name	Free text	
	Number that represents how many sisters you have	Free text	
	Number that represents how many pets you currently have	Free text	
Demographic questions	Gender identity (select all that apply)	<ul style="list-style-type: none"> • Man • Woman • Transgender • Non-binary or third gender • Genderqueer or gender non-conforming • My gender is not listed here • Prefer not to answer 	
	Sexual orientation (select all that apply)	<ul style="list-style-type: none"> • Asexual • Bisexual • Gay or lesbian • Heterosexual/straight • Pansexual • Queer • A sexual orientation not listed here • Prefer not to answer 	

Race/ethnicity (select all that apply)	<ul style="list-style-type: none"> • Asian or Asian American • Black or African American • Hispanic or Latino • Middle Eastern • Native American • North African • Pacific Islander or Native Hawaiian • White • My race/ethnicity is not listed here • Prefer not to answer
Age	Free text
Highest level of education completed	<ul style="list-style-type: none"> • Bachelor's • Master's • Doctorate (DNP) • PhD
Number of years since graduating from nursing program	Free text
Number of years practicing as an RN in the clinical setting	Free text
Practice setting (select all that apply)	<ul style="list-style-type: none"> • Administration • Ambulatory adult • Ambulatory pediatrics • Inpatient adult • Inpatient pediatrics • OR/PACU • Adult emergency department • Pediatric emergency department • Radiology • My practice setting is not listed
Do you have a specialty certification (e.g. CCRN, CPN, CEN, etc.)?	<ul style="list-style-type: none"> • Yes • No

Political Astuteness Inventory (PAI)	I know the name of my district's state senator in the Oregon Legislature.	<ul style="list-style-type: none"> • True • False 	<ul style="list-style-type: none"> • 1 • 0
Oden Self-Efficacy Expectations	Rate your ability to lobby a public policy-making body.	<ul style="list-style-type: none"> • Not at all confident • Only slightly confident • Somewhat confident • Moderately confident • Very confident 	<ul style="list-style-type: none"> • 0 • 1 • 2 • 3 • 4
Oden Outcome Expectations	Rate the amount of impact contacting a public official would have on public policymakers' actions at the state level.	<ul style="list-style-type: none"> • Little impact • Only slight impact • Some impact • Moderate impact • Considerable impact 	<ul style="list-style-type: none"> • 0 • 1 • 2 • 3 • 4
Oden Public Policy Activities	In the last four years, I have ... (select all that apply)	<ul style="list-style-type: none"> • Testified at a formal hearing 	<ul style="list-style-type: none"> • 1
Oden Barriers to Public Policy Involvement	Please select all of the following that you see as barriers to involvement in public policy:	<ul style="list-style-type: none"> • Lack of support 	<ul style="list-style-type: none"> • 1
Oden Benefits to Public Policy Involvement	Please select all of the following that you see as benefits of involvement in public policy:	<ul style="list-style-type: none"> • Improving the health of the public 	<ul style="list-style-type: none"> • 1

Table 4
Instruments used to measure each component of the project's aim.

Aim component	Survey component
Knowledge	PAI
Skills	Oden Self-Efficacy Expectations
Attitudes	Oden Outcome Expectations
Engagement	Oden Policy Activities

Note. PAI = Political Astuteness Inventory.

Table 5
Demographics of the Survey Respondents

Category	Subcategory	Total Sample (n = 15)		Post Survey 1 (n = 14)		Post Survey 2 (n = 10)	
		n	%	n	%	n	%
Gender							
	Woman	15	100	14	100	10	100
Sexual orientation							
	Heterosexual/straight	14	93.3	13	92.9	9	90
	Pansexual	1	6.7	1	7.1	1	10
Race/ethnicity							
	White	13	86.7	12	85.7	8	80
	Middle Eastern	1	6.7	1	7.1	1	10
	Pacific Islander or Native Hawaiian	1	6.7	1	7.1	1	10
Highest degree							
	Bachelor's	10	66.7	9	64.3	6	60
	Master's	4	26.7	4	28.6	3	30
	PhD	1	6.7	1	7.1	1	10
Practice setting (select all that apply)							
	Administration	3	20	3	21.43	2	20
	Ambulatory adult	2	13.33	1	7.14	1	10
	Inpatient adult	6	40	5	35.71	3	30
	Inpatient pediatrics	7	46.67	7	50	6	60
	OR/PACU	2	13.33	2	14.29	0	0
	Adult emergency department	3	20	3	21.43	2	20

	Pediatric emergency department	2	13.33	2	14.29	2	20
	Not listed	1	6.67	1	7.14	0	0
Specialty certification							
	Specialty certified	13	86.7	12	85.7	9	90
	Not specialty certified	2	13.3	2	14.3	1	10
	Category	Total Sample		Post Survey 1		Post Survey 2	
		M	SD	M	SD	M	SD
	Age (years)	41.47	7.809	42	7.815	41.2	8.702
	Years in practice	12.633	8.333	12.964	8.545	11.25	9

Note. Group 1 = pre survey-post survey pairs; Group 2 = pre survey-follow up survey pairs; n = number of survey respondents; % = percent of survey respondents; M = mean; SD = standard deviation

Table 6
Paired Pre Survey and Post Survey Scores (i.e., Group 1) Organized by Sub Section

Respondent ID	Baseline Survey PAI Score	Post Survey 1 PAI Score	Difference in Baseline/Post 1 PAI Scores (Post 1 – Baseline Score)	Baseline Survey Oden Self-Efficacy Score	Post Survey 1 Oden Efficacy Score	Difference in Baseline/Post 1 Oden Efficacy Scores (Post 1 – Baseline Score)	Baseline Survey Outcome Score	Post Survey 1 Outcome Score	Difference in Baseline/Post 1 Outcome Scores (Post 1 – Baseline Score)
ID1	18	23	5	15	15	0	33	28	-5
ID2	22	24	2	4	7	3	10	21	11
ID3	7	14	7	2	3	1	21	24	3
ID4	12	25	13	7	18	11	33	36	3
ID5	13	26	13	3	13	10	17	27	10
ID6	19	27	8	6	17	11	19	28	9
ID7	21	27	6	11	13	2	20	26	6
ID8	9	14	5	0	14	14	18	18	0
ID9	25	31	6	9	16	7	24	29	5
ID10	14	20	6	0	0	0	26	25	-1
ID11	12	20	8	19	20	1	26	28	2
ID12	37	36	-1	21	23	2	33	36	3
ID13	17	24	7	4	5	1	19	17	-2
ID14	22	20	-2	14	5	-9	34	28	-6

Note. PAI = Political Astuteness Inventory.

Table 7
Paired Pre Survey and Follow Up Survey Scores (i.e., Group 2) Organized by Sub Section

Respo ndent ID	Baseli ne Survey PAI Score	Post Surv ey 2 PAI Scor e	Differ ence in Baseli ne/Post 2 PAI Scores (Post 2 – Baseli ne Score)	Baseli ne Survey Oden Effic acy Score	Post Surve y 2 Oden Effic acy Score	Differ ence in Baseli ne/Post 2 Oden Effic acy Scores (Post 2 – Baseli ne Score)	Baseli ne Survey Oden Outco me Score	Post Surve y 2 Oden Outco me Score	Differ ence in Baseli ne/Post 2 Oden Outco me Scores (Post 2 – Baseli ne Score)	Baseli ne Survey Oden Activit ies Score	Post Survey 2 Oden Activit ies Score	Differ ence in Baseli ne/Post 2 Oden Activit ies Scores (Post 2 – Baseli ne Score)
ID5	13	30	17	3	15	12	17	31	14	4	7	3
ID6	19	20	1	6	7	1	19	25	6	3	4	1
ID7	21	21	0	11	15	4	20	25	5	8	8	0
ID8	9	20	11	0	9	9	18	21	3	2	5	3
ID9	25	28	3	9	13	4	24	23	-1	3	2	-1
ID10	14	22	8	0	5	5	26	32	6	1	1	0
ID11	12	26	14	19	20	1	26	24	-2	3	5	2
ID13	17	24	7	4	5	1	19	9	-10	6	5	-1
ID14	22	37	15	14	12	-2	34	32	-2	1	2	1
ID15	18	23	5	8	13	5	28	33	5	3	2	-1

Note. PAI = Political Astuteness Inventory.

Table 8
Results of the paired samples t-test performed on PAI scores to measure change in nurses' legislative advocacy knowledge.

Subscale Pairs	n	M _{diff}	Standard Deviation	Standard Error Mean	95% Confidence Interval of the Difference		t	df	Two- Sided p
					Lower	Upper			
Comparison 1 PAI	14	5.929	4.287	1.146	3.453	8.404	5.174	13	<0.001***
Comparison 2 PAI	10	8.1	5.99	1.894	3.815	12.385	4.276	9	0.002**

Note. n = number of respondents; PAI = Political Astuteness Inventory; M_{diff} = mean of the difference between the post survey score and pre survey score; df = degrees of freedom; p = probability value.

Table 9

Results of the paired samples t-test performed on Oden Self-Efficacy scores to measure change in nurses' public policy skills.

Subscale Pairs	n	M _{diff}	Standard Deviation	Standard Error Mean	95% Confidence Interval of the Difference		t	df	Two-Sided p
					Lower	Upper			
Comparison 1 Oden Self-Efficacy score	14	3.857	6.075	1.624	0.350	7.365	2.376	13	0.034*
Comparison 2 Oden Self-Efficacy score	10	4	4.137	1.308	1.041	6.959	3.058	9	0.014*

Note. n = number of respondents; M_{diff} = mean of the difference between the post survey score and pre survey score; df = degrees of freedom; p = probability value.

Table 10

Results of the paired samples t-test performed on Oden Outcome Expectations scores to measure change in nurses' attitudes regarding legislative advocacy.

Subscale Pairs	n	M _{diff}	Standard Deviation	Standard Error Mean	95% Confidence Interval of the Difference		t	df	Two-Sided p
					Lower	Upper			
Comparison 1 Oden Outcome Expectations score	14	2.714	5.239	1.4	-0.311	5.739	1.938	13	0.075
Comparison 2 Oden Outcome Expectations score	10	2.4	6.484	2.05	-2.238	7.038	1.170	9	0.272

Note. n = number of respondents; M_{diff} = mean of the difference between the post survey score and pre survey score; df = degrees of freedom; p = probability value.

Table 11

Results of the paired samples t-test performed on Oden Policy Activities scores to measure change in nurses' public policy engagement.

Subscale Pairs	n	M _{diff}	Standard Deviation	Standard Error Mean	95% Confidence Interval of the Difference		t	df	Two-Sided p
					Lower	Upper			
Comparison 2 Oden Policy Activities Score	10	0.7	1.567	0.496	-0.421	1.821	1.413	9	0.191

Note. n = number of respondents; M_{diff} = mean of the difference between the follow up survey score and pre survey score; df = degrees of freedom; p = probability value.

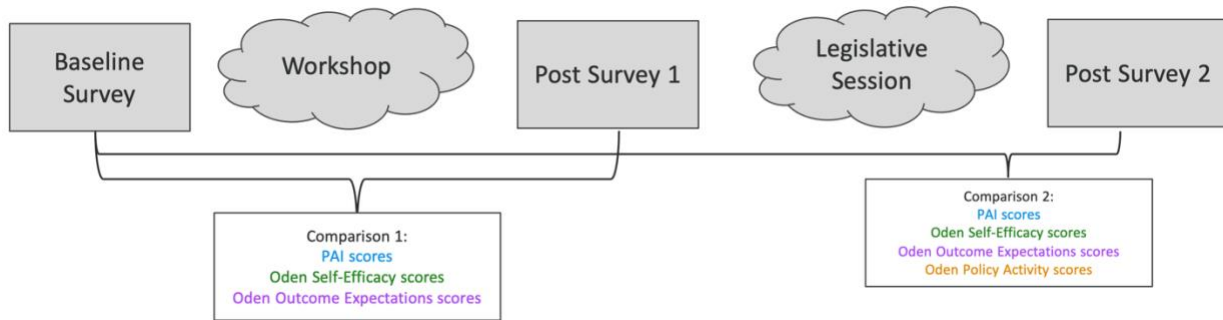
Appendix B

Figures

Figure 1
Project timeline.



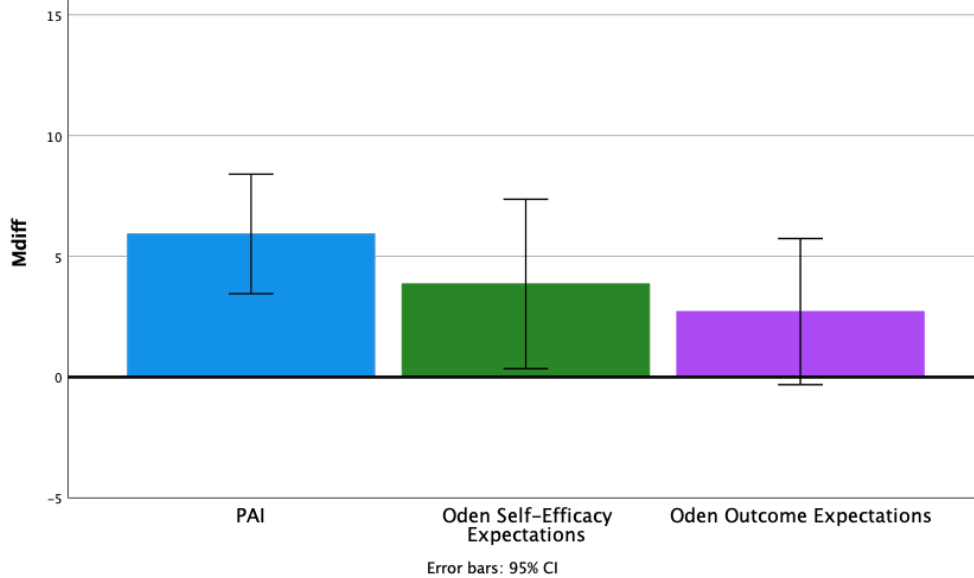
Figure 2
Comparison of subscale scores across time.



Note. PAI = Political Astuteness Inventory.

Figure 3

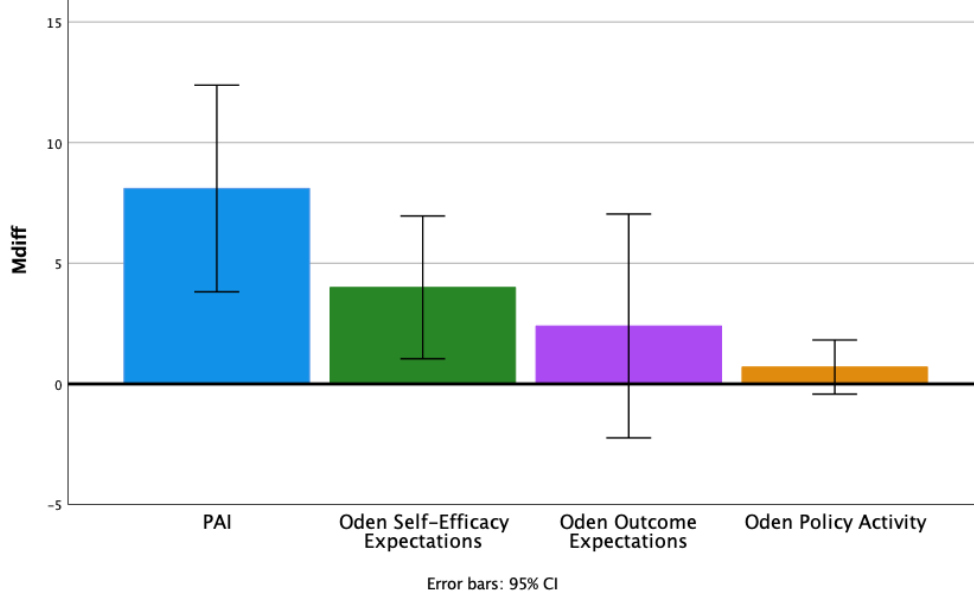
Means of differences between Baseline and Post Survey 1 scores (i.e., Comparison 1)



Note. M_{diff} = means of differences; PAI = Political Astuteness Inventory. The directionality of the bars demonstrates the direction and magnitude of change. Bars above 0 on the y-axis indicate mean improvement in scores, and bars below $y = 0$ indicate mean decline in scores. Error bars were added to represent the 95% confidence interval. If the error bar crossed $y = 0$, this indicated that the change in score for that subsection was not statistically significant.

Figure 4

Means of differences between Baseline and Post Survey 2 scores (i.e., Comparison 2)



Note. M_{diff} = means of differences; PAI = Political Astuteness Inventory. Error bars were added to represent the 95% confidence interval. If the error bar crossed $y = 0$, this indicated that the change in score for that subsection was not statistically significant.

Appendix C

IRB Determination



NOT HUMAN RESEARCH

August 2, 2021

Dear Investigator:

On 8/2/2021, the IRB reviewed the following submission:

Title of Study:	Legislative Advocacy Workshop for Nurses: A Quality Improvement Project
Investigator:	Asma Taha
IRB ID:	STUDY00023338
Funding:	None

The IRB determined that the proposed activity is not research involving human subjects. IRB review and approval is not required.

Certain changes to the research plan may affect this determination. Contact the IRB Office if your project changes and you have questions regarding the need for IRB oversight.

If this project involves the collection, use, or disclosure of Protected Health Information (PHI), you must comply with all applicable requirements under HIPAA. See the [HIPAA and Research website](#) and the [Information Privacy and Security website](#) for more information.

Sincerely,

The OHSU IRB Office

Appendix D

Letter of Support from Implementation Site

Date: 05/23/2021

To whom it may concern:

This letter confirms that I, Deborah Eldredge, allow Kate Ballard (OHSU Doctor of Nursing Practice Student) access to complete her DNP Final Project at our clinical site. The project will take place from approximately 6/1/2021 to 6/1/2022.

This letter summarizes the core elements of the project proposal, already reviewed by the DNP Project Preceptor and clinical liaison (if applicable):

- **Project Site:** Oregon Health & Science University (OHSU)
- **Project Plan:**
 - **Identified Clinical Problem:** The nursing profession has untapped potential for significant influence in the public policy arena. The literature shows that nurses are generally not involved or astute in legislative affairs (Mason, Nixon, et al., 2018; VandeWaa et al., 2019). Anecdotal evidence suggests that there is a lack of legislative engagement by nurses at OHSU. At a recent nursing strategic council meeting, staff expressed interest in opportunities for education and involvement in public policy.
 - **Rationale:** The student will select a model and theoretical framework to guide this project. The chosen intervention is based on facilitators and barriers discussed in the nursing literature.
 - **Specific Aims:** This project aims to improve knowledge, skills and engagement in legislative advocacy.
 - **Methods/Interventions/Measures:** The intervention will be a legislative advocacy class, co-taught by Kate Ballard and Dr. Ben Hoffman (Director of the Tom Sargent Safety Center). The student will collaborate with a Nurse Planner (Rebecca McCay) at OHSU on the curriculum. A pre- and post-survey will be conducted to measure outcomes, as well as a follow-up survey during the 2022 legislative session to assess sustainability and actual engagement. The student is in the process of evaluating validated measurement tools, and will likely use the Waddell Spectrum for Policy Participation Influence and Research (WSPPIR) Instrument (Waddell, 2021).
 - **Data Management:** The surveys will be conducted through Qualtrics, and data will be de-identified.
 - **Site(s) Support:**
 - Space to conduct class (or Webex will be utilized, depending on COVID restrictions at the time of the class).
 - Authorize the student to use OHSU employees as participants, with their permission and IRB approval.

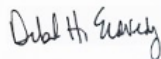
During the project implementation and evaluation, Kate Ballard will provide regular updates and communicate any necessary changes to the DNP Project Preceptor.

Our organization will allow this student to complete their DNP project at this institution. If we have any concerns related to this project, we will contact Kate Ballard and Asma Taha (Kate's DNP Project Chairperson).

Regards,

Deborah Eldredge, PhD, RN _____
DNP Project Preceptor

_____, Director, Nursing Quality, Research, and Magnet Recognition_
Job Title



Signature

6-1-2021
Date Signed