BRIEF

Impact of a Simulated Legislative Visit on Student Pharmacists’ Political Skill Inventory Scores

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Objective. To assess the impact of a simulated legislative visit on political skill inventory (PSI) scores among student pharmacists and assess student pharmacist perceptions of their role as an advocate.

Methods. An anonymous online pre- and post-survey were administered to third-year student pharmacists at one school of pharmacy in North Carolina. Measures included gender, age, previous pharmacy experience, engagement in pharmacy organizations, legislative awareness and engagement, political skill inventory, and perceptions of the simulated legislative visit. Data are presented as medians or proportions, where appropriate. Paired t-tests and Cohen’s d were used to analyze the data.

Results. Thirty student pharmacists provided complete and matchable results for the pre- and post-survey (analysis response rate=36%). The mean PSI score was 5.39 before the intervention which increased to 5.73 after the intervention. The networking ability and interpersonal influence subscales showed statistically significant and medium-to-large effect size increases whereas the social astuteness and apparent sincerity subscales showed low-to-medium effect size increases. Student pharmacists also reported increased agreement with advocacy skills or responsibilities from pre-to post-intervention.

Conclusion. Student pharmacists had significant improvement in PSI scores following a simulated legislative visit and corresponding advocacy lecture. Determining the effectiveness of educational interventions to develop advocacy skills is essential to ensure efficacy and potential for real-world impact.

Keywords: advocacy; student pharmacist; political skill inventory; legislation

INTRODUCTION

In 2009, an American Association of Colleges of Pharmacy (AACP) Curricular Change Summit identified five key abilities for student pharmacists in pharmacy curricular of the future, stating that leadership and advocacy were perhaps the most important. Despite this emphasis, the majority of advocacy experiences described in pharmacy education literature are co-curricular or elective didactic coursework and are often facilitated by student organizations of state or national pharmacy organizations. While these are valuable experiences for student pharmacists, there are inherent issues with these delivery models such as capacity limitations, inaccessibility that may occur due to financial costs and potential need for excused absences from other curricular expectations.

Of the limited studies describing advocacy training in core pharmacy curricula, outcomes primarily focus on student pharmacist performance on course activities or student pharmacist perceptions, which may not predict true growth or ability to perform advocacy skills. Elective coursework outcomes often report student pharmacist outcomes of knowing how to access information, registering to vote, legislative experiences and self-reported perception of advocacy-related skills. Regardless of delivery method between core didactic, elective didactic or co-curricular experiences, there is a lack of assessment of improvement in legislative or political advocacy ability using a validated tool.

The Political Skill Inventory (PSI) by Ferris et al. is a validated, reliable and stable construct to assess competency in political skill. It has been positively associated with political savvy, emotional intelligence, and is a predictor of job performance and work-related behaviors and outcomes. Further, political skill represents the ability to maximize and leverage relationships in order to achieve goals at the personal, team and organization level. These are necessary skills for political advocacy. While simulated or mock legislative visits have been used previously to create real-life assessments to prepare student pharmacists to use advocacy skills, these have not been assessed using validated tools or assessments. The objectives of the study were to assess the impact of a simulated legislative visit on PSI scores among student pharmacists, and assess student pharmacist perceptions of their role as an advocate. The authors
hypothesized that a simulated legislative visit following a lecture on developing a legislative ask would lead to improved PSI scores.

METHODS

This study was deemed exempt by the Wingate University Research Review Board (IRB). An anonymous online pre- and post-survey was administered to student pharmacists (n=83) enrolled in Current Issues in Public Health during the third professional (P3) year in January 2019. Student pharmacists were included in the study analysis if they provided usable survey responses for both the pre- and post-survey. Informed consent was collected at the beginning of the pre-survey. The surveys were administered using Qualtrics. This study was designed to assess PSI scores at baseline and after a lecture on how to develop a legislative ask that was assessed via a simulated legislative visit.

The didactic lecture was developed using the resources “Igniting the fire within: A primer on political advocacy for pharmacy professions” and “Leadership and advocacy for pharmacy”. Figure 1 provides the lecture objectives, the simulated legislative visit checklist, and a summary of the strategies for developing a legislative all mapped to the PSI. These strategies were developed from the first author’s own legislative experiences, the previously cited resources, and concepts were illustrated from published literature. Student pharmacists were provided with a mock legislation in advance of the simulated legislative visit and a case description for a pharmacy legislative today to enable them to prepare their legislative ask for the mock legislator. Student pharmacists were tasked to advocate for the mock legislation that would have allowed for pharmacists to furnish smoking cessation treatment via a statewide standing order by asking their mock legislator to vote in support of the legislation. The simulated legislative visit was assessed using a rubric that was mapped to the simulated visit checklist.

The following student pharmacist demographic characteristics were collected: gender identification, previous pharmacy work experience, and type pharmacy work experience. Work experience was collected as pre-matriculation work experience has been shown to influence student pharmacist development of professional identity and perceptions of their future career. Student pharmacists were asked how many organizations they were a dues paying member of, their knowledge of their elected legislators, engagement in the legislative process, and attitudes and self-perceived skills regarding advocacy roles and responsibilities. Student pharmacists also completed the PSI. Two validated tools to assess advocacy related skills, interest, and activities were identified: the PSI as well as the Political Astuteness Inventory (PAI). The PSI measures the ability to read situations and people whereas the PAI is designed to measure awareness and understanding of legislative and political processes (i.e., voting activity).

The PSI is an 18-item scale designed to measure political skill and consists of the following dimensions: networking ability (NA), interpersonal influence (II), social astuteness (SA), and apparent sincerity (AS). Each item is scored using a 7-point Likert-type answer (1=Strongly disagree, 7=Strongly Agree). Since the goal of this project was to assess the impact of a simulated legislative visit where student pharmacists were tasked to try to garner the support of a mock legislator, it was deemed that the PSI was a better fit than the PAI. For the PSI, each participant receives a total score and divided by 18 to arrive at a mean PSI composite score for each subscale. A higher mean score (>4.0) denotes greater than average political skill. The internal consistency of the PSI has been reported to be $\alpha=0.89-0.96$, indicating adequate internal consistency. Attitudes, skills and the PSI were assessed on both the pre- and post-survey. On the post-survey, student pharmacist perceptions of the simulated legislative visit were also collected.

All analyses were conducted using SAS v9.4 (Cary, NC). Pre- and post-datasets were compared to the matched dataset to examine if there were any statistically significant differences that may bias the interpretation of results due to a lower sample size. For the total PSI scale and each subscale on both the pre- and post-survey, one-sample t-tests were used to compare whether the mean for each was statistically significantly different using an alpha less than $p=.05$. There were no statistically significant differences between the pre- and the post-intervention responses to the matched sample, so the decision was made to only use the matched sample for data analysis.

Descriptive statistics were utilized for demographics using frequencies and proportions. Internal consistency of the PSI was assessed using Cronbach’s alpha. PSI scores are reported using means and standard deviations (SD). To account for the possibility of a type I error due to multiplicity of testing for each of the subscales, the Bonferroni correction ($\alpha/5$) was used to adjust the alpha to $p<.01$ to indicate statistical significance. Bivariate relationships were assessed between the following variables and the pre-test PSI average score using an independent samples t-test or one-way analysis of variance (ANOVA), when appropriate: (1) gender, (2) age group, (3) previous degrees, and (4) number of pharmacy organizations the student pharmacist was a dues paying member of. Change in PSI average score and each of the PSI subscales was assessed using paired t-tests and Cohen’s $d$. All statistical tests were two-sided. Increases in attitudes regarding advocacy roles and responsibilities were assessed from pre- to post-intervention. To preserve statistical power, no bivariate statistical analyses were utilized. Student pharmacist attitudes regarding pharmacist advocacy are reported after participating in the simulated legislation visit using descriptive statistics (frequencies and proportions).
RESULTS
The pre-survey was completed by 64 student pharmacists (initial response rate=77%) and the post-survey was completed by 44 student pharmacists (follow-up response rate=53%). There were complete and usable, matched data for 30 student pharmacists (analysis response rate=36%). The majority of the sample was female (77%, n=23), between 20 to 25 years old (73%, n=22), did not have a prior degree (53%, n=16), and had previous paid pharmacy work experience (93%, n=28). The most common location for previous paid pharmacy work experience was in chain community pharmacy (63%, n=19). The majority of student pharmacists (80%, n=24) were not aware of who were their state legislators were and 77% (n=23) were not aware of who their federal legislators were. Most student pharmacists had never contacted their legislators about pharmacy-specific legislation (73%, n=22) nor non-pharmacy specific legislation (87%, n=26).

The pre-survey PSI internal consistency was $\alpha=.92$ while the post-test PSI internal consistency was $\alpha=.94$. For the PSI total scale and each subscale, student pharmacists reported greater than average (mean >4.0) political skill. Table 1 presents the mean for the total PSI scale and each subscale pre- and post-intervention. At baseline, there were no statistically significant differences on the mean PSI score based on any of the student pharmacist demographic characteristics ($p>.05$). The paired t-test indicated on average, student pharmacists significantly increased their composite PSI score ($t=4.35$, $DF=29$, $p<.001$, $d=.79$) pre- to post-intervention. The paired t-tests for each of the subscales also indicated that the mean scores significantly increased for NA ($t=4.07$, $DF=29$, $p<.001$, $d=.74$) and II ($t=3.52$, $DF=29$, $p<.005$, $d=.64$) subscales with a medium to large effect size, except the SA ($t=2.25$, $DF=29$, $p=.03$, $d=.41$) and AS ($t=2.44$, $DF=29$, $p=.02$, $d=.45$) subscales. Even though the p-values did not reach the critical threshold for statistical significance for the SA and AS subscales, there were small to medium effect size increases indicated by Cohen’s $d$. There were no statistically significant differences in the amount of change in composite PSI score based on any of the student pharmacist demographics characteristics ($p>.05$).

For each item regarding advocacy skills or responsibilities, there were increases in the proportion of student pharmacists who reported Agree-Strongly Agree, except for one item. There was a decrease in the amount of student pharmacists reporting they Agreed-Strongly Agreed that it was part of their role as a student pharmacist to advocate for health needs within society, which decreased from 97% (n=29) to 87% (n=26). Table 2 presents the percent changes for each item.

Regarding student pharmacist attitudes toward the simulated legislation visit, 90% (n=27) indicated that they Agreed-Strongly Agreed that the simulated legislation visit was effective at improving their confidence when participating in advocacy. Ninety-three percent (n=28) of student pharmacists indicated that they Agreed-Strongly Agreed that participating in the simulated legislation visit better prepared them for engaging as an advocate. Finally, 67% (n=20) of student pharmacists indicated that they Agreed-Strongly Agreed that they were more likely to engage in advocacy activities as a student pharmacist or pharmacist after participating in the simulated visit.

DISCUSSION
Despite a greater than average composite baseline PSI score, third-year student pharmacists showed statistically significant improvement in composite PSI as well as NA and II subscale PSI scores following a simulated legislative visit. While the SA and AS subscales did not show significance, they showed moderate improvement as well. The PSI showed a high internal consistency among the study population that was similar to that reported among a population of nurses. To the authors’ knowledge, this is the first study to evaluate the impact of advocacy training among a student pharmacist population using a validated tool such as the PSI. Student pharmacists also reported increases in advocacy-related attitudes and skills that previous studies have also identified; however, people have a tendency to overestimate their competence.

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Student pharmacists reported in this study that the simulated legislative visit was effective in preparing them for advocacy activities and reported they were more likely to participate in advocacy initiatives following the experience. This is important as Gang et al. identified a high self-reported duty to advocate among health profession students that did not translate to knowledge or action, which could have been impacted by a very low prevalence of advocacy training. This low prevalence of advocacy training has led some health systems to create interprofessional health policy and advocacy curricula as part of post-graduate training. There have been several calls for mandatory, “hands on” or skill-based curricula in advocacy in medical school programs. Ross et al. reported prevalence of “hands on” learning activities to be available at 11-57% of schools and colleges of pharmacy with the most common activity being a legislative day. This is similar to medical programs where approximately 50% of institutions provide opportunities for students to practice advocacy.

Several limitations of this study must be considered. The sample size was small, which may have contributed to a type II error for the SA subscale. Other possible causes of type II error are the Bonferroni correction. Further, the study
population represented one class of student pharmacists at one academic institution. Before the PSI could be recommended as a tool to assess development of advocacy-related skills among student pharmacists, this study would need replicated at multiple schools and colleges of pharmacy with a larger sample size. The findings of this study suggest that the PSI may be a reliable tool to assess political skills in student pharmacists. Additionally, the post-intervention assessment occurred directly after the simulated legislative visit and no long-term assessment of retention of skills was conducted. The study institution has a longitudinal advocacy curricular thread similar to the thread described by Mospan et al, but the baseline assessment occurred midway through student pharmacist exposure to the thread.

Future research will focus on assessment of PSI score from the beginning to the end of the didactic Pharm.D. curriculum at the study institution to assess the impact of a longitudinal advocacy curricular thread. Martin et al. have highlighted the importance of the lack of clarity in how to assess advocacy skills and have called for assessments beyond pre-post assessment that show meaningful long-term impact through learner engagement in advocacy. This is necessary before the results can be extrapolated to other Pharm.D. curricula given the higher than average baseline PSI score. Despite these score differences, internal consistency was shown to be comparable to previous studies. Student pharmacists had already been exposed to a portion of the advocacy curricular thread which could explain the higher baseline score. Additionally, skills that the PSI measures may be skills that are difficult to teach and are instead more innate personality traits. Replication of these results at other institutions that offer simulated legislative visits or legislative days could help to establish that PSI skills can be taught and enhanced with proper advocacy training in PharmD curricula.

CONCLUSION

The PSI was shown to have high internal consistency to evaluate the impact of a simulated legislative visit among a cohort of third-year student pharmacists. Student pharmacists showed significant improvement in PSI score associated with a simulated legislative visit; however only the NA and II subscales showed significant improvement. The PSI and simulated legislative visit show promise as core didactic teaching and assessment tools for advocacy training; however, future research is needed to validate these findings among a larger sample size across multiple institutions with varying advocacy-related curricular experiences.

REFERENCES

relationships/


Figure 1. Lecture Objectives, Course Lecture and Guide for Legislative Visit Mapped to PSI

Lecture Objectives

- Demonstrate effective strategies for advocating for the profession of pharmacy (II, SA, AS)
- Formulate a strategy to advocate for mock pharmacy legislation (NA, II, SA)

How to Build a Legislative Ask

- Increase access to health care (SA, AS)
- Focus on vulnerable populations and emerging public health needs (SA)
- Create interest among legislators and constituents (II)
- Use clinical data, literature and public policy to support ask (II, AS)
- Be prepared for misinformation and how to correct (SA)
- Be aware of opposing party’s policies, statements and lobbying/advocacy efforts (SA)
- Build relationships with your representation, governing bodies and collaborators (NA)
- Be aware of public and legislators’ perception of the profession (SA)

Student Guide for Legislative Visit

- Great the legislator and introduce yourself (name, practice) (NA)
- Make sure the legislator knows that you are a constituent from their district (NA)
- State the reason for your visit with the legislator (include bill number, title and summary) (AS)
- Focus on how legislation would improve access to care vs. focusing on practice advancement of pharmacist (II, AS)
- Identify how the legislation meets a public health need or provides care for a vulnerable population (SA)
- Include a patient story to connect relevance and hit home why this change is important (AS, SA)
- Include data to support the legislation (cost reduction, improved care outcomes, greater patient satisfaction, successful implementation in other states, etc.) (II, AS)
- Try to anticipate misinformation/argument against your legislation to correct incorrect information/misperception (SA)
- Try to build relationships before you need a legislative ask (Become your legislator’s “personal pharmacist”) (NA)
- Ask the legislator if they have any questions about the legislation (AS)
- Offer to get back to them if you don’t know the answer (II, AS)
- Always leave the meeting with a definitive ask (SA)

NA = networking ability, II = interpersonal influence, SA = social astuteness, AS = apparent sincerity
Table 1. Political Skills Inventory (PSI) Scores Before and After Simulated Legislative Visit (n=30)

<table>
<thead>
<tr>
<th></th>
<th>Pre-Intervention Mean (SD)</th>
<th>Post-Intervention Mean (SD)</th>
<th>Cohen's d</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI Composite</td>
<td>5.4 (0.8)</td>
<td>5.7 (0.8)</td>
<td>0.8</td>
</tr>
<tr>
<td>PSI-Networking Ability</td>
<td>4.6 (1.3)</td>
<td>5.1 (1.3)</td>
<td>0.7</td>
</tr>
<tr>
<td>PSI-Interpersonal Influence</td>
<td>5.7 (0.8)</td>
<td>6.0 (0.8)</td>
<td>0.6</td>
</tr>
<tr>
<td>PSI-Social Astuteness</td>
<td>5.5 (0.8)</td>
<td>5.8 (0.8)</td>
<td>0.4</td>
</tr>
<tr>
<td>PSI-Apparent Sincerity</td>
<td>6.3 (0.6)</td>
<td>6.5 (0.6)</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Table 2. Student Pharmacist Perceptions of Advocacy Skills and Responsibilities (n=30)

<table>
<thead>
<tr>
<th></th>
<th>Pre-Intervention Strongly Agree-Agree (%)</th>
<th>Post-Intervention Strongly Agree-Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am able to effectively communicate my position to my legislators and/or their staffers</td>
<td>43</td>
<td>90</td>
</tr>
<tr>
<td>I know what to expect when I meet with legislators and their staffers</td>
<td>13</td>
<td>77</td>
</tr>
<tr>
<td>I can describe how public policy affects the populations that I serve</td>
<td>40</td>
<td>97</td>
</tr>
<tr>
<td>As a student pharmacist, I believe I can influence policy</td>
<td>67</td>
<td>73</td>
</tr>
<tr>
<td>As a student pharmacist, I believe it is important to contact my legislators about issues affecting my future patients</td>
<td>70</td>
<td>73</td>
</tr>
<tr>
<td>As a student pharmacist, I believe it is important to contact my legislators about issues that will affect the way I practice within the profession of pharmacy</td>
<td>83</td>
<td>93</td>
</tr>
<tr>
<td>Participating in the legislative process is a professional responsibility of pharmacists</td>
<td>60</td>
<td>73</td>
</tr>
<tr>
<td>Meeting with legislators is a worthwhile use of my time</td>
<td>43</td>
<td>60</td>
</tr>
<tr>
<td>Meeting with a legislator's staff is a worthwhile use of my time</td>
<td>40</td>
<td>77</td>
</tr>
<tr>
<td>It is part of my role as a student pharmacist to advocate for health needs within society</td>
<td>97</td>
<td>87</td>
</tr>
<tr>
<td>I plan to engage in health legislative advocacy activities in the future</td>
<td>33</td>
<td>53</td>
</tr>
</tbody>
</table>