Translating Scope of Practice Research for Policy Makers

Jean Moore, DrPH, FAAN, Margaret Langelier, MSHSA, Simona Surdu, MD, PhD
Oral Health Workforce Research Center, Center for Health Workforce Studies, School of Public Health, University at Albany

THE OHWRC AT CHWS

The OHWRC at CHWS is a program of the University at Albany School of Public Health. It was initially funded through a 3-year cooperative agreement with the Health Resources and Services Administration (HRSA) in the US Department of Health and Human Services. In September of 2017, cooperative agreement funding was renewed for an additional 5 years.

The goal of OHWRC is to provide researchers on the oral health workforce to assist in future health workforce planning.

Researchers who contributed to this work included Margaret Langelier, MSHSA; Tracey Continelli, PhD; Simona Surdu, MD, PhD; Bridget Baker, MA; and Rachel Carter.

The American Dental Hygiene Association helped to organize dental hygiene focus groups to inform this work.

CONTACT

Oral Health Workforce Research Center Center for Health Workforce Studies 518-402-0250 info@oralhealthworkforce.org www.oralhealthworkforce.org

PURPOSE

To describe the value of dental hygiene (DH) scope of practice (SOP) and to translate research findings for policy makers seeking strategies to improve access to oral health services.

METHODS

Developed a tool to measure SOP variation: Dental Hygiene Professional Practice Index (DHPPI)

- Initially developed in 2001 and revised in 2016
- State DH SOP scored in 2001 & 2014 using 2001 DHPPI and then in 2016 using the 2016 DHPPP
- Assessed impact of SOP variation on health outcomes

Multilevel logistic modeling was conducted using:

- 2001 and 2014 DHPPI scores
- 2002 and 2012 Behavioral Risk Factor Surveillance System (BRFSS) data on oral health status (ie, permanent teeth removed due to decay or disease)
- State (eg, supply of dentists & dental hygienists) and individual (eg, age, race, gender, income, education, employment status) level factors

Translated SOP research findings for policy-makers

There is substantial variation in DH SOP across states, but no tools to help policy makers understand these differences.

- A DH SOP infographic was developed using:
  - Scores from the 2016 DHPPI
  - A series of focus groups of dental hygiene leaders from across the country to identify the key DH functions and tasks

RESULTS

Changing scope of practice for dental hygienists

- State DH SOP scores ranged:
  - From 10 in West Virginia to 97 in Colorado in 2001
  - From 18 in Alabama & Mississippi to 98 in Maine in 2014
  - From 7 in Mississippi to 86 in Maine in 2016
- DHPPI mean score was 43.5 in 2001, 57.6 in 2014 and 48.9 in 2016
- High scoring states in 2014 were also high scoring on the 2016 index (eg, ME, CO, GA, WA, NM were each classified as excellent environments at each scoring)
- Some states were innovators (eg, MN with advanced dental therapy, VT recently enabled dental therapy; professionals have to be DHs)

- Other states used a slower, more incremental approach to increasing scope of practice (eg, IA classified as satisfactory at each scoring)
- Some low scoring states were consistently low scoring (eg, GA, MS, NC classified as restrictive at each scoring)

Figure 1. A Comparison of DHPPI Scores in 2001, 2014, and 2016

Impact of dental hygiene interventions on outcomes

- More expansive SOP for DHs in states was positively and significantly associated (P<0.05) with having no teeth removed due to decay or disease among adults in those states.
- 2016 DHPPI accommodates emerging workforce models and newly permitted remediable and irremediable functions for DHs that were not included in the previous iterations of the DHPPI.

Table 1. Multivariable Association Between DHPPI Scores and Having No Teeth Removed Due to Decay or Disease

<table>
<thead>
<tr>
<th>DHPPPI</th>
<th>Odds Ratio</th>
<th>P-value</th>
<th>Odds Ratio</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composite Score</td>
<td>1.005</td>
<td>0.001</td>
<td>1.003</td>
<td>0.011</td>
</tr>
<tr>
<td>Regulation Score</td>
<td>1.032</td>
<td>0.178</td>
<td>1.025</td>
<td>0.028</td>
</tr>
<tr>
<td>Supervision Score</td>
<td>1.011</td>
<td>0.001</td>
<td>1.002</td>
<td>0.952</td>
</tr>
<tr>
<td>Tasks Score</td>
<td>1.014</td>
<td>0.004</td>
<td>1.006</td>
<td>0.299</td>
</tr>
<tr>
<td>Reimbursement Score</td>
<td>1.012</td>
<td>0.109</td>
<td>1.012</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Table 2. Map of the 2016 DHPPI Scores and Ranking of States

DISCUSSION

- Efforts to systematically quantify profession-specific SOP variation and measure impacts on population health is critical to helping stakeholders understand why SOP matters.
- A data visualization depicting state-specific SOP variation on key functions within a health profession provides policy makers a better perspective on where to focus state-specific efforts to allow health professionals to do what they are trained and competent to do while improving patient outcomes.
- Infographics such as this one should be considered a work in progress, requiring routine updating as states modify SOP requirements.

REFERENCES


This project was supported by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) as part of an award totaling $448,203. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement by HRSA, HHS, or the US Government. For more information, please visit HRSA.gov.