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How Can Occupational Licensing Reforms Improve Access to Dental Care?

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HOW CAN OCCUPATIONAL LICENSING REFORMS IMPROVE ACCESS TO DENTAL CARE?

by

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Abstract

Occupational licensing laws have a large effect on the American economy and requirements affect all levels of professional work, from hairdressers and plumbers to doctors and lawyers. Those laws vary by state and exist to protect consumers from asymmetric information problems. Yet a growing body of literature finds that occupational licensing raises costs for consumers without necessarily raising the quality of service.

The dental field is one such sector of employment that commonly is licensed. Oral health is an important indicator of overall individual health and general wellbeing. Unfortunately, consumers lack access to dental care in many parts of the United States. As of December 31, 2018, nearly 6,000 Dental Health Professional Shortage Areas (HPSAs) had been identified in the 50 US states. Around 58 million people live in those shortage areas, and it is estimated that more than 10,000 practitioners are necessary to meet the needs of the affected populations.

Dental licensing is meant to protect consumers and ensure that technical procedures are being performed only by practitioners with the appropriate skills and levels of training. However, that requirement also increases the cost of less technical procedures that, under current regulations also must be performed by licensed dentists; those rules, restrict the availability of dental care. Mid-level providers such as dental hygienists and dental therapists could increase access to dental care without compromising quality.

For my parents

Acknowledgements

I would like to thank the Honors Department faculty for encouraging me to do this project and for my committee members for helping me. I am very thankful for Dr. William F. Shughart II for helping me narrow the scope of my project and for mentoring me. I would also like to thank Brian Isom for being an accountability partner and helping me stay on task and the Economics and Finance Department and the Center for Growth and Opportunity at Utah State University for helping fund this project and my travel to conferences where I presented.

Table of Contents

Introduction

Occupational licensing laws affect broad swathes of the American economy. Occupational licensing refers to entry regulations placed on a number of professions by state and federal government agencies. These regulations require practitioners to obtain state-certified licenses before they legally can practice their professions.[1] Licensing requirements affect all levels of professional work, from hairdressers and plumbers to doctors and lawyers.

Licensing requirements vary by state and nominally exist to protect consumers from asymmetric information problems. However, a growing body of research is examining the impacts of occupational licensing standards on costs and outcomes in the occupations where they are implemented.

The dental field is one such sector of employment that commonly is licensed. Oral health is an important indicator of overall individual health and general wellbeing.[2] Unfortunately, consumers lack access to dental care in many parts of the United States. As of December 31, 2018, nearly 6,000 Dental Health Professional Shortage Areas (HPSAs) had been identified in the 50 US states. Around 58 million people live in those shortage areas, and it is estimated that more than 10,000 practitioners are necessary to meet the needs of the affected populations.[3]

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[1] Sources: Department of the Treasury Office of Economic Policy, Council of Economic Advisers, and Department of Labor, "Occupational Licensing: A Framework for Policymakers," July 2015, https://obamawhitehouse.archives.gov/sites/default/files/docs/licensing_report_final_nonembargo.pdf

[2] U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, and National Institute of Health. 2000. Oral Health in America: A Report of the Surgeon General. Retrieved from: https://www.nidcr.nih.gov/sites/default/files/2017-10/hck1ocv.%40www.surgeon.fullrpt.pdf

[3] Bureau of Health Workforce Health Resources and Services Administration (HRSA) U.S. Department of Health & Human Services. December 31, 2018. Designated Health Professional Shortage Areas Statistics. Retrieved from: https://ersrs.hrsa.gov/ReportServer?/HGDW_Reports/BCD_HPSA/BCD_HPSA_SCR50_Qtr_Smry_HTML&rc:Toolbar=false

Dental licensing is meant to protect consumers and ensure that technical procedures are being performed only by practitioners with the appropriate skills and levels of training. However, that requirement also increases the cost of less technical procedures that, under current regulations, also must be performed by licensed dentists; those rules restrict the availability of dental care. Dental therapists—akin to physician assistants in the medical field—are one means of increasing the availability of dental care while at the same time reducing patients' costs, but therapists cannot practice legally in many states because of occupational licensing laws.

This research builds on previous work we have conducted on occupational licensing highlighting the negative welfare effects they create by raising prices for consumers while raising wages for licensed professionals. We specifically explore how legalizing the practice of dental therapists affects access to and the costs of receiving dental care in the United States.

The Importance of Access to Dental Care

A 2000 report by the Surgeon General states that "oral health is integral to general health."[4] That unique report highlights the importance of oral health to overall health and quality of life. The report also argues that the mouth is a mirror of individual health that can help reveal diseases and abnormalities that are not directly related to oral health.[5]

[4] U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, and National Institute of Health. 2000. Oral Health in America: A Report of the Surgeon General. Retrieved from: https://www.nidcr.nih.gov/sites/default/files/2017-10/hck1ocv.%40www.surgeon.fullrpt.pdf

[5] U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, and National Institute of Health. 2000. Oral Health in America: A Report of the Surgeon General. Retrieved from: https://www.nidcr.nih.gov/sites/default/files/2017-10/hck1ocv.%40www.surgeon.fullrpt.pdf

Major improvements to oral health in the United States have been made in the past five decades.[6] Yet, disparities still exist when it comes to accessing dental care. About 36 percent of children from low-income US households suffer from untreated decay in their primary (baby) teeth compared to about 17 percent of children from wealthier households.[7] The Centers for Disease Control and Prevention found that Hispanics and African Americans had rates of untreated tooth decay almost twice as high as whites—36, 42, and 22 percent, respectively.

According to a survey conducted by the American Dental Association (ADA), one in five low-income US adults says that their oral health is in poor condition and 39 percent say that life is "less satisfying due to the condition of [their] mouth and teeth."[8] The same report found that 29 percent of low-income adults believe that the appearances of their teeth affect their ability to interview for jobs. Those consumers perceive a need for access to dental care, yet many of them did not visit a dentist within the past year. About 60 percent of the respondents who did not visit a dentist's office within the last year cited high fees for service as the main reason for not seeking dental care (See Figure 1 below).[9]

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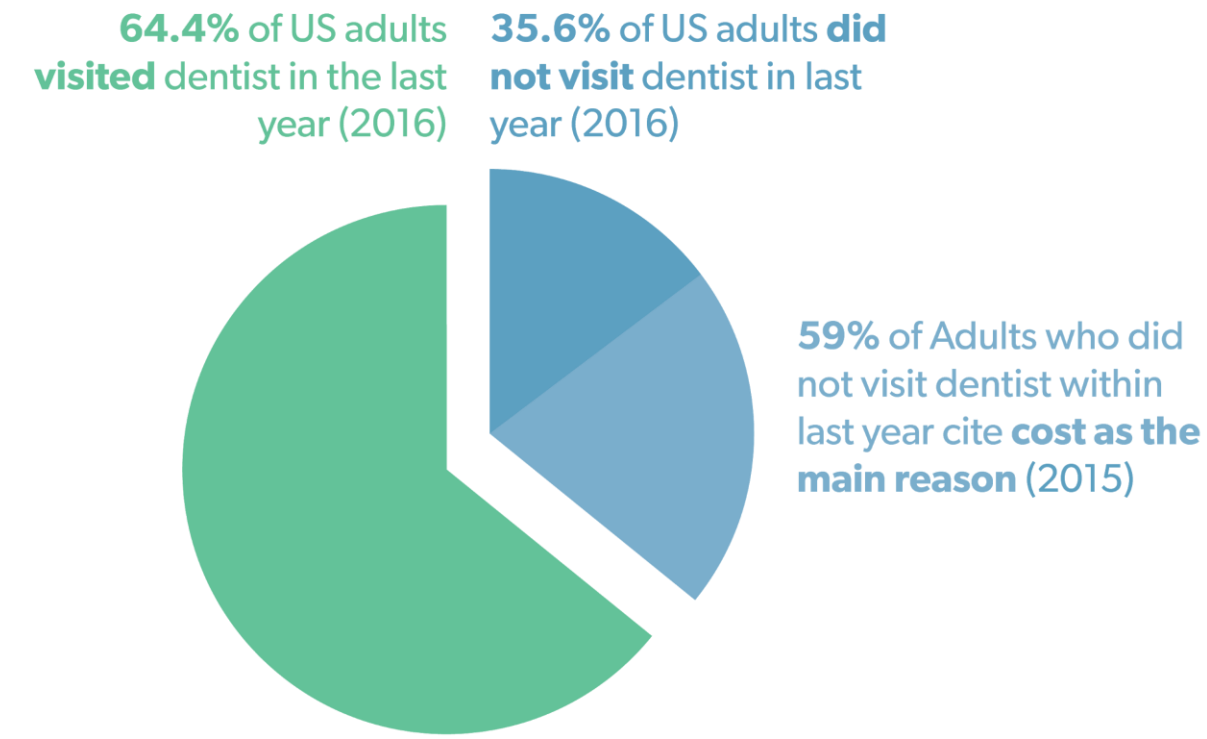
[6] U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, and National Institute of Health. 2000. Oral Health in America: A Report of the Surgeon General. Pg 1. Retrieved from: https://www.nidcr.nih.gov/sites/default/files/2017-10/hck1ocv.%40www.surgeon.fullrpt.pdf

[7] U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, and National Institute of Health. 2000. Oral Health in America: A Report of the Surgeon General. Pg 63. Retrieved from: https://www.nidcr.nih.gov/sites/default/files/2017-10/hck1ocv.%40www.surgeon.fullrpt.pdf

[8] American Dental Association and Health Policy Institute. 2015. Oral Health and Well-Being in the United States. Retrieved from: https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/OralHealthWell-Being-StateFacts/US-Oral-Health-Well-Being.pdf?la=en

[9] American Dental Association and Health Policy Institute. 2015. Oral Health and Well-Being in the United States. Retrieved from: https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/OralHealthWell-Being-StateFacts/US-Oral-Health-Well-Being.pdf?la=en

Figure 1.



Sources:
https://www.cdc.gov/nchs/fastats/dental.htm (2016)
https://www.ada.org/~/media/ADA/Science%20and%20Research/HI/OralHealthWell-Being-StateFacts/US-Oral-Health-Well-Being.pdf

Achieving and maintaining dental health helps individuals to have better health outcomes overall and have better qualities of life. Many factors affect access to dental care. Currently, occupational licensing is one major regulatory barrier preventing consumers from accessing affordable dental care.

The Role of Occupational Licensing

An occupational license is a permission slip from the state government to work in a certain field after proving competency.[10] Licensing nominally exists to protect consumers from asymmetric information and potentially bad actors who provide substandard services. Each state has created a unique set of rules defining both the jobs that require licensure and the requirements necessary to earn that license. Since the 1950s, occupational licensing has become four times more prevalent in the United States than it had been in the past.[11]

Occupational licensing can be seen as a protection for consumers and as a barrier to entry for workers.[12] It has a disparate impact both on low-income and minority workers. Many entry-level jobs require a license and impose certain qualification requirements, which often include specific levels of education or training, passing exams, and paying fees. Those requirements can prove particularly onerous for low-income or minority individuals.[13]

A report by Kleiner and Kudrle examined the oral health of US Air Force recruits from across the country and compared the recruits' health to the difficulty of becoming a licensed dentist in each of the states. Their findings suggest that stricter licensing requirements for dentists did not improve oral health outcomes, but it did raise prices for dental services.[14]

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[10] Kleiner, Morris. 2000. Occupational Licensing. *Journal of Economic Perspectives.* Pg 192. Retrieved from: https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.14.4.189

[11] "2016 Data on Certifications and Licenses (CPS)." U.S. Bureau of Labor Statistics. February 09, 2018. Accessed September 14, 2018. https://www.bls.gov/cps/certifications-and-licenses-2016.htm; Kleiner, Morris M. Licensing Occupations: Ensuring Quality or Restricting Competition? Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2006.

[12] Morris M. Kleiner and Robert T. Kudrle, "Does Regulation Affect Economic Outcomes? The Case of Dentistry," The Journal of Law and Economics 43, no. 2 (October 2000): 547-582. https://doi.org/10.1086/467465

[13] Dick M. Carpenter, Lisa Knepper, Kyle Sweetland, & Jennifer McDonald. License to Work: A National Study of Burdens from Occupational Licensing, 2nd ed. (Arlington, VA: Institute for Justice, November 2017), https://ij.org/ wp-content/themes/ijorg/images/ltw2/License_to_Work_2nd_Edition.pdf.

[14] Morris M. Kleiner and Robert T. Kudrle, "Does Regulation Affect Economic Outcomes? The Case of Dentistry," The Journal of Law and Economics 43, no. 2 (October 2000): 547-582. https://doi.org/10.1086/467465

Licensing rules are meant to close informational gaps between consumers and producers so that consumers are not taken advantage of by practitioners and to protect consumers from low-quality service providers. Each occupation entails its own level of risk and licensing regulations are meant to be tailored to those risks. Larger risks for consumers arise in fields like dentistry and many other areas of healthcare. Those greater risks strengthen the case for public intervention through licensing or other safety regulations.

Previous reforms have led to better outcomes for both consumers and workers. In the 1960s, a medical professional shortage led to the creation of physician assistants.[15] As of 2011, more than 75,000 physician assistants were practicing in the United States. Research suggests that patients are satisfied with the care they receive from physician assistants and that physician assistants are cost-effective owing to their capability of performing tasks similar to those of physicians at a lower cost.[16]

How This Applies to Dentistry

Dentistry is a highly regulated field because of the high level of complexity and risk associated with many dental procedures and services. State occupational licensing laws impact how dental professionals practice and, ultimately, how patients receive care. The need to expand access to dental care is great and one way could be by following a model similar to that of

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[15] Carter, Reginald. 2001. "Physician Assistant History. Physician Assistant History. *Perspective on Physician Assistant Education. Vol 12, No. 2.* Retrieved from: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.557.1177&rep=rep1&type=pdf

[16] Hooker, Roderick S. and Christine M. Everett. August 18, 2011. The Contributions of Physician Assistants in Primary Care Systems. *Health and Social Care in the Community. Vol 20, Issue 1.* Retrieved from: https://doi.org/10.1111/j.1365-2524.2011.01021.x

physician assistants and allowing dental therapists to diagnose dental problems and to perform routine treatments.

A dental therapist is a mid-level provider of dental care analogous to a physician assistant.[17] Dental therapists first began practicing in New Zealand in 1920, when the New Zealand Dental Association voted to allow the creation of a "dental nurse school" to help treat patients six to 14 years old.[18] Those dental nurses later were called dental therapists and, as of 2008, the model of a mid-level provider for dental care had spread to more than 53 countries.[19]

Dentists go to school for nearly eight years after completing high school—about four to receive an undergraduate degree and four more in dental school where they learn to perform multiple procedures.[20] The procedures they learn range in complexity from routine tasks like filling cavities to more complex procedures like root canals and dental implants. Many of those less complex procedures can be performed by dental therapists who can earn their degrees in as little as two to three years.[21] Because of their high degree of specialization, restricting the performance of less complex procedures to dentists increases the cost of receiving such treatments.

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[17] WK Kellogg Foundation. Mid-level Dental Providers: Expanding Care to Every Community. Retrieved from: http://dentaltherapyresourceguide.wkkf.org/resources/wp-content/uploads/sites/2/2018/04/Mid-Level-Dental-Providers.pdf

[18] Hamilton, Michael T. and Charlie Katebi. January 2019. The State Lawmaker's Case for Legalizing Dental Therapy. *The Heartland Institute*. Retrieved from: https://www.heartland.org/_template-assets/documents/publications/DentalTherPB.pdf

[19] Nash, David A., Jay W. Friedman, Thomas B. Kardos, Rosemary L. Kardos, Eli Schwarz, Julie Satur, Darren G. Berg, Jaafar Nasruddin, Elifuraha G. Mumghamba, Elizabeth S. Davenport, & Ron Nagel. 2008. Dental Therapists: a global perspective. *International Dental Journal*. Retrieved from: https://www.ncbi.nlm.nih.gov/pubmed/18478885

[20] Hamilton, Michael T. and Charlie Katebi. January 2019. The State Lawmaker's Case for Legalizing Dental Therapy. The Heartland Institute. Retrieved from: https://www.heartland.org/_template-assets/documents/publications/DentalTherPB.pdf

[21] Alaska Native Tribal Health Consortium. 2019. DHAT Certification and Scope of Practice. Retrieved from: https://anthc.org/alaska-dental-therapy-education-programs/adtep-certification-scope-of-practice/; University of Minnesota School of Dentistry. 2019. Dental Therapy. Retrieved from: https://www.dentistry.umn.edu/degrees-programs/dental-therapy

Dental therapists perform a fraction of the procedures that dentists perform. The precise number is determined by scope-of-practice laws, which vary by state, but generally include preventative care (similar to the care a dental hygienist might give) and more permanent restorative care, such as filling cavities and performing simple extractions.[22]

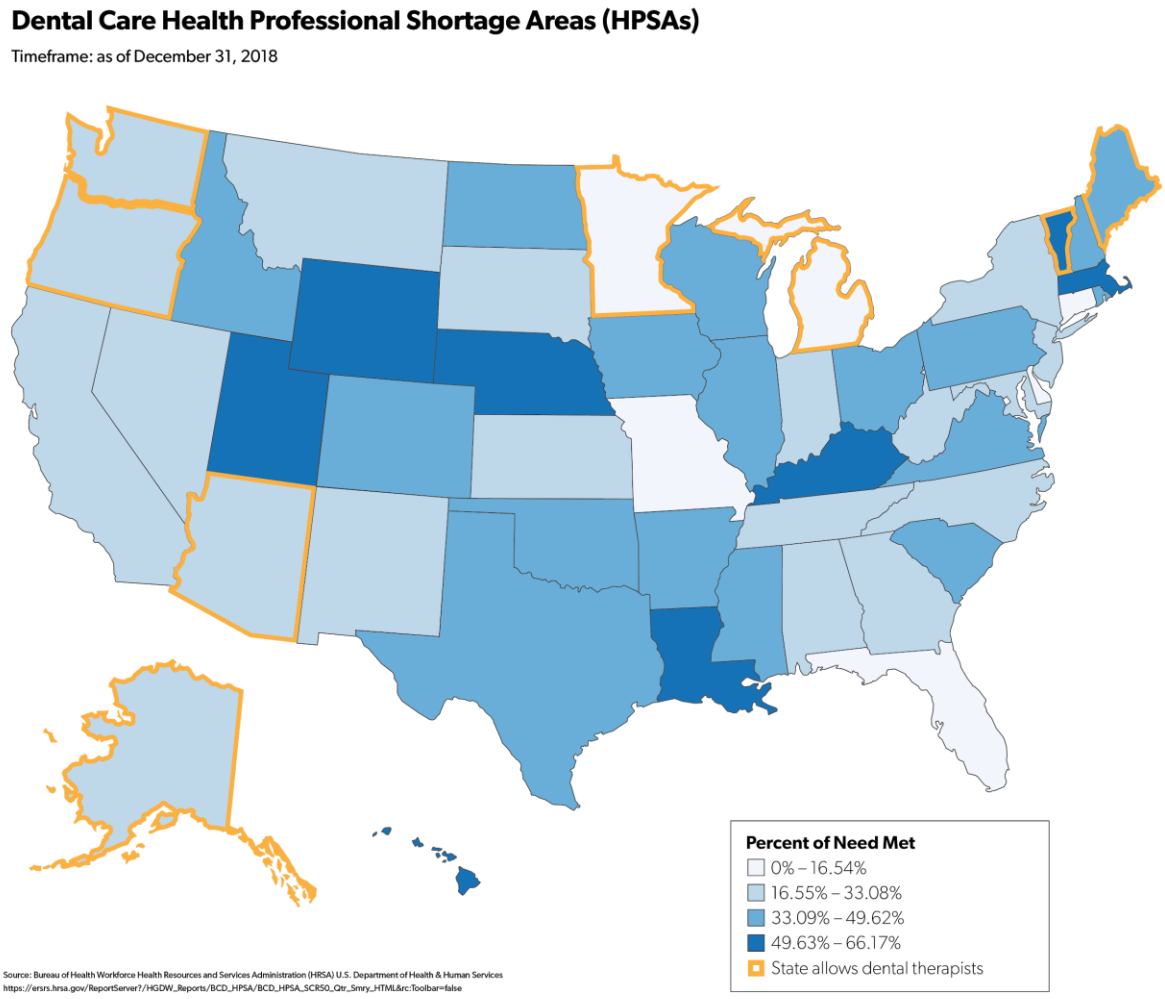
How Mid-level Providers can Improve Dental Care Outcomes

Dental therapists have been practicing all over the world for some time and are beginning to establish themselves in the United States. As of March 2019, dental therapists were allowed to practice in some shape or form in eight states.[23] Figure 2 highlights those states where dental therapists practice and the percentages of Health Professional Shortage Area needs that have been fulfilled.

[22] Hamilton, Michael T. and Charlie Katebi. January 2019. The State Lawmaker's Case for Legalizing Dental Therapy. The Heartland Institute. Retrieved from: https://www.heartland.org/_template-assets/documents/publications/DentalTherPB.pdf

[23] Grant, John & Kristen Mizzi Angelone. December 31, 2018. Michigan Becomes 8th State to Authorize Dental Therapists. The Pew Charitable Trusts. Retrieved from: https://www.pewtrusts.org/en/research-and-analysis/articles/2018/12/31/michigan-becomes-8th-state-to-authorize-dental-therapists

Figure 2.



In 2005, Alaska was the first state to allow dental therapists to practice. But their scope of practice was limited to native communities.[24] A 2017 report conducted at the University of Washington asked whether a difference existed in access to preventative care and overall dental

[24] Hamilton, Michael T. & Charlie Katebi. January 2019. The State Lawmaker's Case for Legalizing Dental Therapy. *The Heartland Institute*. pg . 6. Retrieved from: https://www.heartland.org/_template-assets/documents/publications/DentalTherPB.pdf

health in the Yukon Kuskokwim communities wherein dental therapists worked and those where they did not. The study found that the members of those communities in which dental therapists worked received more preventative care and had fewer teeth extractions—indications of overall greater health.[25]

Minnesota passed a law in 2009 that created two classes of dental therapists—Dental Therapist and Advanced Dental Therapist. The state passed the law to address oral health disparities amongst low-income, minority, and elderly individuals.[26] One provision of the law states that dental therapists must practice in settings that focus on treating low-income patients or in an area the federal government designates as a Health Professional Shortage Area.[27]

The first cohort of dental therapists became licensed in July 2011.[28]A Minnesota Department of Health report examined the early impacts of 32 dental therapists who were licensed as of February 2014. At that time, therapists comprised less than one percent of licensed dental health professionals in the state.[29] The report found that many clinics saw an increase in new patients directly attributable to the addition of a dental therapist to the team. The number of

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[25] Chi, D. L., Lenaker, D., Mancl, L., Dunbar, M., & Babb, M. August 11, 2017. Dental Utilization for Communities Served by Dental Therapists in Alaska's Yukon Kuskokwim Delta: Findings from an Observational Quantitative Study. *University of Washington*. Retrieved from: http://faculty.washington.edu/dchi/files/DHATFinalReport.pdf

[26] Minnesota Department of Health. February 2014. Early Impacts of Dental Therapists in Minnesota. *Minnesota Department of Health Minnesota Board of Dentistry Report to the Minnesota Legislature 2014.* Retrieved from: https://mn.gov/boards/assets/2014DentalTherapistReport_tcm21-45970.pdf

[27] Minnesota Department of Health. February 2014. Early Impacts of Dental Therapists in Minnesota. *Minnesota Department of Health Minnesota Board of Dentistry Report to the Minnesota Legislature 2014.* Pg. 5. Retrieved from: https://mn.gov/boards/assets/2014DentalTherapistReport_tcm21-45970.pdf

[28] Minnesota Department of Health. February 2014. Early Impacts of Dental Therapists in Minnesota. *Minnesota Department of Health Minnesota Board of Dentistry Report to the Minnesota Legislature 2014.* Pg. 6. Retrieved from: https://mn.gov/boards/assets/2014DentalTherapistReport_tcm21-45970.pdf

[29] Minnesota Department of Health. February 2014. Early Impacts of Dental Therapists in Minnesota. *Minnesota Department of Health Minnesota Board of Dentistry Report to the Minnesota Legislature 2014.* Pg. 6. Retrieved from: https://mn.gov/boards/assets/2014DentalTherapistReport_tcm21-45970.pdf

32 divided by (32+4,027+5,542)=.003

patients being seen in one of the clinics studied actually doubled.[30] The increase in new patients was explained mainly by the cost savings associated with adding a mid-level provider who accepts a lower salary and who serves low-income individuals receiving financial aid from the government.[31]

Besides increasing access for individuals who wouldn't be able to afford care otherwise, the dental therapists also seemed to reduce waiting times for patients at the clinics in general. About one-third of the patients surveyed in the study reported having shorter waits since their clinic had hired a dental therapist.[32] One clinic even reported a maximum wait time drop from four to one-and-a-half weeks for appointments.[33]

Research suggests that dental therapists can perform procedures at lower costs and with substantial benefits to patients, much like physician assistants in clinics or doctors' offices. Adding dental therapists to dental practice teams can free time for dentists to perform more difficult procedures which, in turn, could lower the costs of dental care for consumers in the long run.

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[30] Minnesota Department of Health. February 2014. Early Impacts of Dental Therapists in Minnesota. *Minnesota Department of Health Minnesota Board of Dentistry Report to the Minnesota Legislature 2014.* Pg. 13. Retrieved from: https://mn.gov/boards/assets/2014DentalTherapistReport_tcm21-45970.pdf

[31] Minnesota Department of Health. February 2014. Early Impacts of Dental Therapists in Minnesota. *Minnesota Department of Health Minnesota Board of Dentistry Report to the Minnesota Legislature 2014.* Pg. 21. Retrieved from: https://mn.gov/boards/assets/2014DentalTherapistReport_tcm21-45970.pdf

[32] Minnesota Department of Health. February 2014. Early Impacts of Dental Therapists in Minnesota. *Minnesota Department of Health Minnesota Board of Dentistry Report to the Minnesota Legislature 2014.* Pg. 1. Retrieved from: https://mn.gov/boards/assets/2014DentalTherapistReport_tcm21-45970.pdf
32 divided by (32+4,027+5,542)=.003

[33] Minnesota Department of Health. February 2014. Early Impacts of Dental Therapists in Minnesota. *Minnesota Department of Health Minnesota Board of Dentistry Report to the Minnesota Legislature 2014.* Pg. 16. Retrieved from: https://mn.gov/boards/assets/2014DentalTherapistReport_tcm21-45970.pdf
32 divided by (32+4,027+5,542)=.003

Conclusion

A substantial body of research shows the negative effects for consumers of occupational licensing laws. In response to such research, many states are actively pursuing reforms that will help maintain quality of service while lowering unnecessary barriers to entry, especially for low-skilled or low-income workers and for occupations that do not have direct impacts on health.

A need for broader access to dental care at lower prices is evident in the United States. One possible solution is to reform licensing regulations to allow dental therapists to practice their profession. Dental therapists have been employed in many other countries and currently are allowed to practice in some form in eight US states.[34] Many organizations, including the American Dental Association and various state dental associations, are opposed to allowing such mid-level providers to treat patients. Those organizations tend to cite consumer safety as the reason dental therapists should not be licensed and their scopes of practice expanded. Proponents argue that dental therapists pose no threat to consumers' health and safety and that they expand access to dental care, especially in low-income households.

In fact, no evidence exists that dental therapists lead to worse health outcomes. Similar to the welfare benefits produced from reforming occupational licensing rules in other industries, reforming regulations to allow dental therapists to treat patients could increase access to dental care for poor and underserved communities in the United States.

[34] Grant, John & Kristen Mizzi Angelone. December 31, 2018. Michigan Becomes 8th State to Authorize Dental Therapists. The Pew Charitable Trusts. Retrieved from: https://www.pewtrusts.org/en/research-and-analysis/articles/2018/12/31/michigan-becomes-8th-state-to-authorize-dental-therapists

Reflection

Word Count: 1102

One of the most difficult parts about doing an honors research capstone project was coming up with a good research question. The question needed to be exciting to me, it needed to add to the field of thought, and it needed to feasible.

When I first started thinking about my honors capstone project about a year ago, I had no idea what I was going to do my research on. I had research experience on environmental issues such as the Endangered Species Act. I also had a little background in occupational licensing. I considered doing research on pollution and air quality and looking at possible solutions to help improve air quality in Cache Valley. This was a challenging and interesting issue. I did not really know how I would go about looking at such a difficult and sometimes controversial issue. I then changed my avenue of thought to examining innovative healthcare models that could save money and improve quality for consumers. I had read that the US spends a greater percentage of its GDP on healthcare than any other country (with results that weren't much better if at all). This intrigued me. I thought "How could we be spending more money and having mediocre or sometimes inferior outcomes?"

This was not the question that I ended up researching. Although it was a step in the right direction, I still had more refining to do. I continued to investigate the issue of healthcare and realized that looking at healthcare in the United States in general was too large of a scope and the issues were extremely complicated. There are so many laws, regulations, and nuance. As I continued to study healthcare issues, I came across the idea of teledentistry—an innovation that allows dentists to diagnose and even sometimes treat dental disorders and diseases remotely. I spoke to Bill Shughart to see if he'd be willing to be my mentor for this project and he was glad to do it.

One day he sent me an article that changed the scope of my project and my research question even further. He sent me an article about dental therapists (a mid-level provider of dental care). That mid-level provider only practices in eight US states and over 54 other countries around the world. This was an occupation that I had never even heard of and the idea of this mid-level provider practicing in the US was new. As a pre-dental student I was very interested in studying this topic further. My final research question was: "How Can Occupational Licensing Reforms Improve Access to Dental Care?"

Once I finally nailed down what my research question was, the process became much smoother. Although, there were still challenges that I had to overcome. I would recommend that honors students in the future begin to think about what their capstone project will be early on rather than later. I would also suggest that they be passionate about what their project is and that they be open to pursuing ideas and changing their project if necessary. My research question changed a lot, or rather, I narrowed it down a lot. I'm so glad that I was open to new ideas because I ended up researching and learning a lot about an idea that is unique and that is directly applicable to my future career.

My next step after finalizing my research question with the help of my mentor was to dig deep into the literature on occupational licensing and on dental therapy. I read many articles and kept track of the findings in each. This process took longer than I thought it would have taken. There is so much information out there that it was hard to know when to stop researching and when to begin writing. There came a point when I needed to hit deadlines, even if they were arbitrary. So, I began building on the outline that I had created, and everything seemed to fall into place. The writing portion itself was not that difficult, but I have such high expectations for

my work I think it was hard to overcome that barrier. So, another piece of advice I would give to future honors students is to set reasonable deadlines with your mentor and to re-evaluate and change them if necessary. But, to do whatever it takes to make sure you hit your deadlines. Otherwise, you could go on and on without actually producing a final product. This is at least how it could be for a written project. I'm sure there are some differences with other kinds of projects.

After getting the first "Shizzy draft" completed, I felt great. Writing is more of a process and less of a person's sheer ability to whip up beautiful prose. I understood this going in, but I had forgotten that it was okay to have a completely awful first draft. It turned out that my first draft really wasn't that bad. But I had my co-author and my mentor offer edits. They had many minor edits, but the content of the paper was good and with multiple rounds of edits, the paper came into its full. I hope future honors students can realize that making mistakes and having a bad first draft of a project is just fine. In fact, it's part of the process. Students just need to get going and make something tangible that can be fine-tuned with help later.

My favorite part of the capstone project was presenting my research to others in the form of poster presentations. I was able to present to state legislators at Research on Capitol Hill. I went to the Bahamas to present at an undergraduate poster competition at an international economics conference. I presented at Utah State University's Student Research Symposium. And lastly, I presented at a student research showcase held by the Center for Growth and Opportunity at Utah State University. It was a lot of fun and very rewarding to get to speak about the research I had been working on. I had some great conversations. I would recommend that honors students take advantage of every opportunity they have to present their capstone project.

The capstone project is no easy task. It requires a lot of work and a lot of planning. But I think anyone can complete a capstone project if they have a good mentor who is willing to work with the student. I am grateful for the mentorship that Bill Shughart gave me and for the help that my co-author Brian Isom gave me. I couldn't have done this project without their guidance and recommendations.

Primary Author Biography

Jacob Caldwell grew up in Mountain Green, Utah. After graduating high school, he served an ecclesiastical mission for his church in El Salvador. Upon returning he began studying at Utah State University. He was involved in the Huntsman Scholars program, Pre-dental club, and economics-based research. He presented research at multiple conferences, including three international conferences. His research has been published on through Strata Policy and the Center for Growth and Opportunity at Utah State University. Outreach about his research has been published in the Deseret News and Inside Sources. After graduating, Jake plans to attend The School of Dental Medicine at the University of Nevada Las Vegas.