

Beaumont Health

Beaumont Health Scholarly Works and Archives

Conference Presentation Abstracts

Internal Medicine

5-2021

COVID-19 Vaccine Hesitancy Among Medical and Dental Students

Arati Kelekar

Neila Afonso

Victoria Lucia

Ana Karina Mascarenhas

Follow this and additional works at: https://scholarlyworks.beaumont.org/internal_medicine_confabstract



Part of the [Internal Medicine Commons](#)



COVID-19 Vaccine Hesitancy Among Medical and Dental Students

Arati Kelekar¹, Nelia Afonso², Victoria Lucia², Ana Karina Mascarenhas³

1. Department of Internal Medicine, Oakland University William Beaumont School of Medicine, , MI.

2. Department of Foundational Sciences, Oakland University William Beaumont School of Medicine, Rochester, MI

3. Nova Southeastern University, Fort Lauderdale, FL

Introduction

- Medical (MS) and dental students (DS) are exposed to COVID-19 patients.
- They will also be entrusted with advocating for the COVID-19 vaccine and counseling vaccine hesitant patients.
- Dentists are at a higher risk of acquiring COVID-19 infection due to their exposure to aerosolizing procedures.¹
- It is therefore important to achieve high COVID-19 vaccination coverage rates in both these groups.

Aims and Objectives

1: To assess the attitudes of medical and dental students to COVID-19 vaccines.

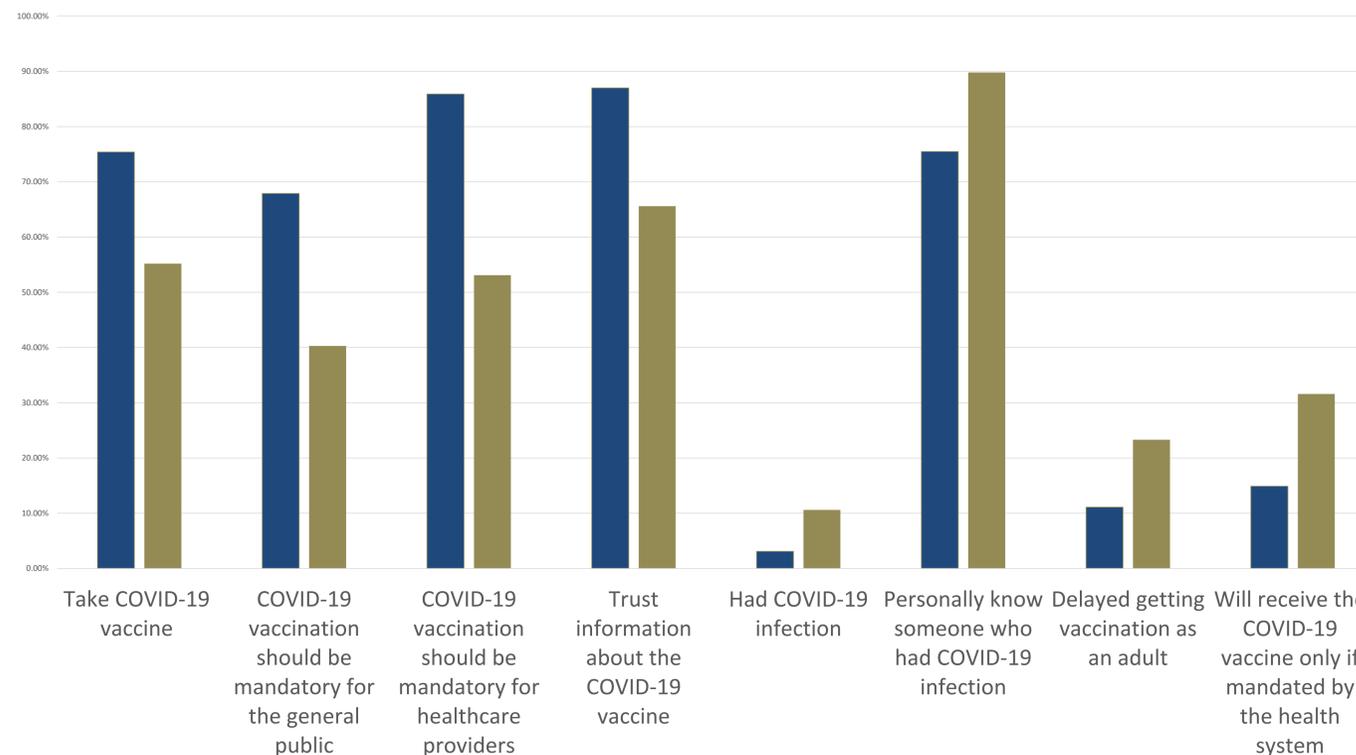
2: To assess the prevalence of vaccine hesitancy and factors impacting vaccine acceptance amongst medical and dental students.

Methods

- The study was conducted at 3 dental schools in Michigan, Florida and Utah as well as an allopathic medical school in Michigan.
- An anonymous online survey was developed based on past research involving attitudes and behaviors about vaccination.²⁻⁴ All authors reviewed free-text comments for emerging themes and patterns.
- The survey assessed:
 - previous immunization behavior
 - attitudes and perception of COVID-19 vaccines
 - personal experience with COVID-19 infection.
- Likert scale items were recategorized as strongly agree/agree and strongly disagree/disagree.
- This project received IRB approval.

Results

Table 1: Survey results MS (Blue) vs. DS(Gold)



| Theme | Concern/Recommendation |
|---|--|
| Personal concern about vaccine safety/efficacy Rapid development/implementation of vaccine | Hesitancy to receive a vaccine whose safety was not clearly known. Indicated preference to delay for further availability of information. Skeptical about the vaccine trials being rushed, missing critical steps and possibility that the vaccine may not be safe. |
| Politicization | Concern that politics may have played a role in both the downplaying of the severity of the disease as well pressurizing responsible agencies resulting in premature authorization of vaccine. |
| Trust in regulatory agencies | Concern that information released by CDC may not be trustworthy. |
| Education for public | Need for development of easy to understand informational materials for the general public with links to reputable sources and ability to share these easily through social media. |

Conclusions

- One-quarter of MS and half of DS were hesitant to receive the COVID-19 vaccine.
- Although more DS had personal experience with COVID-19 infection:
 - They were less trusting of public health experts
 - They disagreed with a vaccine mandate.

Discussion

- Not being directly involved with care of SARS-Cov-2 positive patients and lower risk perception may be responsible for this hesitancy as has been previously reported.⁵⁻⁶
- The results highlight the need for profession specific curriculum designed to enhance student knowledge about the COVID-19 vaccine.
- MS and DS need formal education to improve their knowledge and attitudes and training on performing vaccine counseling.⁷
- It is the responsibility of health care organizations to train these future professionals to make strong vaccine recommendations and respond effectively to vaccine-hesitant persons.

References

1. U.S. Department of Labor, Occupational Safety and Health Administration. Guidance on preparing workplaces for COVID-19. OSHA 3990-03 2020. <https://www.osha.gov/Publications/OSHA3990.pdf>. Accessed January 21, 2021.
2. Larson HJ, Jarrett C, Schulz WS, et al. SAGE Working Group on Vaccine Hesitancy. Measuring vaccine hesitancy: The development of a survey tool. *Vaccine*. 2015;33(34):4165-75.
3. Kernéis S, Jacquet C, Bannay A, et al. Vaccine education of medical students: A nationwide cross-sectional survey. *Am J Prev Med*. 2017;53(3):e97-e104.
4. Afonso NM, Kavanagh MJ, Swanberg SM, Schulte JM, Wunderlich T, Lucia VC. Will they lead by example? Assessment of vaccination rates and attitudes to human papilloma virus in millennial medical students. *BMC Pub Health*. 2017;17(1):35.
5. Gagneux-Brunon A, Detoc M, Bruel S, et al. Intention to get vaccinations against COVID-19 in French healthcare workers during the first pandemic wave: A cross sectional survey. *J Hosp Infect*. 2020 Nov 28;108:168-73. doi: 10.1016/j.jhin.2020.11.020. Epub ahead of print. PMID: 33259883; PMCID: PMC7699157.
6. Betsch C, Wicker S. E-health use, vaccination knowledge and perception of own risk: Drivers of vaccination uptake in medical students. *Vaccine*. 2012;30(6):1143-8.
7. Afonso N, Kavanagh M, Swanberg S. Improvement in attitudes toward influenza vaccination in medical students following an integrated curricular intervention. *Vaccine*. 2014;32(4):502-6.