

1 **Title:** Service Learning Goes Virtual in the Viral World

2
3 **Author names:** Joel Grunhut, Shimron Brown, Peter Averkiou

4 **Degrees:** Joel Grunhut BA, Shimron Brown BS, Peter Averkiou MD

5 **Affiliations:** Charles E. Schmidt College of Medicine Florida Atlantic University

6 **About the author:** Joel Grunhut is an MS2 at Charles E. Schmidt College of Medicine Florida Atlantic
7 University, Boca Raton, Florida.

8 **Acknowledgment:** None

9 **Financing:** None

10 **Conflict of interest statement by authors:** None

11 **Compliance with ethical standards:** Any aspect of the work covered in this manuscript has been conducted
12 with the ethical approval of all relevant bodies and that such approvals are acknowledged within the manuscript.

13
14 **Authors Contribution Statement:** All authors contributed to the conceptualization, Writing – Original Draft and
15 Writing – Review & Editing.

16
17 **Manuscript word count:** 620

18 **Number of Figures and Tables:** 0

19
20 **Personal, Professional, and Institutional Social Network accounts**

- 21 • **Twitter:** @joeltgrunhut @FAUMedSchool

22
23 **Discussion Points:**

- 24 1. In a time when the pandemic presented many challenges, these students gained valuable
25 opportunities, lifelong lessons, and new relationships.
- 26 2. Working with these students allowed us to take a step back from learning about the medical field and
27 teach about it instead.

28
29 **Publisher's Disclosure:** *This is a PDF file of an unedited manuscript that has been accepted for publication.*
30 *As a service to our readers and authors we are providing this early version of the manuscript. The manuscript*
31 *will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable*
32 *form. Please note that during the production process errors may be discovered which could affect the content,*
33 *and all legal disclaimers that apply to the journal pertain.*

1 THE EXPERIENCE.

2
3 The current healthcare environment obliges medical schools to include a principle of community partnership
4 within a medical education. This should provide medical students the skills to practice in a rapidly changing
5 health environment.¹ Throughout the COVID-19 pandemic, medical schools were challenged with providing
6 community engaged learning to their students.^{2,3} Service learning, a learning experience that combines
7 community service with preparation, planning, engagement, and reflection, is an example of the community-
8 engaged learning that faced these challenges during the pandemic.⁴ Service learning is a required activity at
9 our medical school and fits well with the mission of our school, which includes advancing the well-being and
10 health of our community through patient-centered care. Our school aims to train excellent clinicians who are
11 compassionate and will serve as advocates for their communities.

12
13 The middle school where we performed our service learning was like most other schools in the country this fall.
14 In August, the school announced its plan to roll out a virtual curriculum. However, a group of 6th, 7th, and 8th
15 graders experienced a curriculum that was quite different. Twice a week, these students met virtually with two
16 medical students and experienced what it meant to be a professional healthcare worker. We implemented a
17 theme of “Training to Live as a Healthy Professional” - a play on words to teach the students about being a
18 “professional of being healthy”, and also to serve as an exposure to healthcare as a profession. We hoped to
19 encourage the students to living healthy and to give them the tools to enter a healthcare profession. Many of
20 the students are from underserved communities and never considered this profession as an option.

21
22 We structured our time to focus on “training to think like medical professionals”, with interactive scenarios to
23 understand clinical reasoning, integrating valuable nutritional and exercise lessons, and included a session on
24 approaching the challenges of telemedicine.

25
26 This infusion into the virtual curriculum provided a great opportunity for the students to interact and learn through
27 an exciting medium. Previously, others have reported that learning through an online platform may present
28 challenges with interaction and stimulation.⁵ We aimed to avoid these challenges through question-provoking
29 lessons, quiz contests, and role playing. The lessons learned also resonated with the children and showed them
30 a bright promise for their futures. In a time when the pandemic presented many challenges, these students
31 gained valuable opportunities, lifelong lessons, and new friendships.

32
33 Working with these students allowed us to take a step back from learning about the medical field and instead,
34 teach about it. The students showed us that it is never too early to begin understanding the basics of biology
35 and to be introduced to its real-world clinical implications such as obesity, diabetes, heart disease, and rare
36 genetic diseases. We found that teaching, even such young minds, gave us a chance to practice communication
37 with those that have not been learning medicine daily - a glimpse of what the future holds for us. The importance
38 of medical students teaching children and thus sharpening teaching skills has been emphasized by others
39 previously.⁶ We similarly felt that this experience allowed us to assume a teaching role that will aide us in the
40 future and improve our overall clinical and mentoring capabilities.

1 We came out of this experience with renewed enthusiasm towards involvement in the community. We want to
2 impart the idea that once we are doctors, we should ensure that our patients feel comfortable to participate in
3 discussions regarding their health and medical diagnoses, and most importantly, to remember that as doctors
4 we will also be teachers. At a time when medical disease and treatments are at the forefront of every
5 conversation, educating our children, patients, and communities is of the utmost importance.
6

Accepted, In-press

1 **REFERENCES.**

- 2
- 3 1. Hunt JB, Bonham C, Jones L. Understanding the goals of service learning and community-based medical
4 education: a systematic review. *Acad Med.* 2011 Feb;86(2):246–51.
 - 5 2. Tsimba BM, Masupe T, Setlhare V. Service-learning in response to the coronavirus disease 2019
6 pandemic: Emerging lessons from the Department of Family Medicine and Public Health at the University
7 of Botswana. *African J Prim Heal Care Fam Med.* 2020 Jun;12(1):e1–3.
 - 8 3. Loyola Correa T, Sandoval Terra Campos Guelli M. Telemedicine Volunteering Experience as a Medical
9 Student During the COVID-19 Pandemic in Brazil. *Int J Med Students [Internet].* 2021 Jan 21;(SE-
10 Experience). Available from: <https://www.ijms.info/IJMS/article/view/831>
 - 11 4. Prakash N, Grunhut J, Howard H. Is Community-engaged Learning Possible During a Pandemic: A Call
12 for Culturally Competent Medical Education. *MedEdPublish.* 2020;9(1):1–8.
 - 13 5. Thomas A, Shenoy MT, Shenoy KT, Suresh Kumar S, Sidheeque A, C. Khovidh, et al. Survey Among
14 Medical Students During COVID-19 Lockdown: The Online Class Dilemma. *Int J Med Students [Internet].*
15 2020 Aug 3;8(2 SE-Original Article):102–6. Available from: <https://www.ijms.info/IJMS/article/view/571>
 - 16 6. Cline L, Canales M. From Student to Teacher: Medical Student Perceptions of Teaching Children and a
17 Novel Application of the One Minute Preceptor. *Int J Med Students.* 2020;8(3):245–50.