

Original Paper

Perspective of Medical Students on the COVID-19 Pandemic: Survey of Nine Medical Schools in Uganda

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Abstract

Background: The coronavirus disease (COVID-19) pandemic is a global public health concern affecting over 5 million people and posing a great burden on health care systems worldwide.

Objective: The aim of this study is to determine the knowledge, attitude, and practices of medical students in Uganda on the COVID-19 pandemic.

Methods: We conducted an online, descriptive cross-sectional study in mid-April 2020, using WhatsApp Messenger. Medical students in 9 of the 10 medical schools in Uganda were approached through convenience sampling. Bloom's cut-off of 80% was used to determine good knowledge (≥ 12 out of 15), positive attitude (≥ 20 out of 25), and good practice (≥ 12 out of 15).

Results: The data of 741 first- to fifth-year medical students, consisting of 468 (63%) males with a mean age of 24 (SD 4) years, were analyzed. The majority (n=626, 84%) were pursuing Bachelor of Medicine and Bachelor of Surgery degrees. Overall, 671 (91%) had good knowledge, 550 (74%) had a positive attitude, and 426 (57%) had good practices. Knowledge was associated with the 4th year of study (adjusted odds ratio [aOR] 4.1, 95% CI 1.6-10.3; $P < .001$). Attitude was associated with the female sex (aOR 0.7, 95% CI 0.5-1; $P = .04$) and TV or radio shows (aOR 1.1, 95% CI 0.6-2.1; $P = .01$). Practices were associated with the ≥ 24 years age category (aOR 1.5, 95% CI 1.1-2.1; $P = .02$) and online courses (aOR 1.8, 95% CI 1.1-3.2; $P = .03$). In total, 592 (80%) medical students were willing to participate in frontline care if called upon.

Conclusions: Medical students in Uganda have sufficient knowledge of COVID-19 and will be a large reservoir for health care response when the need arises.

In conclusion, we were able to demonstrate that Ugandan medical students have sufficient knowledge on COVID-19 and the majority are willing to join the frontline health care response when called upon. Therefore, in the event of escalation in COVID-19 cases in Uganda, medical students, especially those in the clinical years, may be harnessed to work alongside qualified health care professionals in the COVID-19 response.

Continued access to online health information resources like free courses, clinical management guidelines, and webinars on COVID-19 offered internationally (eg, by the International Federation of Medical Students Association [23], the CDC [24], and the WHO [25,26]) and nationally (eg, by Ministry of Health-Uganda [27]) may help improve knowledge, attitude, and practices among medical students.

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Authors' Contributions

JK (MUST), RO, and FB conceptualized the study. RO and FB designed the study protocol. RO, FB, GC, JK (MUST), JK (Gulu), LN, PM, OKM, AMK, LM, AA, GW, and DRN participated in data collection. RO and FB analyzed the data. RO, JK (MUST), GC, GW, AMK, LN, and FB drafted the original manuscript. All authors reviewed and approved the final manuscript.

Conflicts of Interest

None declared.

Multimedia Appendix 1

Data collection questionnaire.

[\[PDF File \(Adobe PDF File\), 330 KB-Multimedia Appendix 1\]](#)

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Abbreviations

- aOR:** adjusted odds ratio
- BDS:** Bachelor of Dental Surgery
- BNUR:** Bachelor of Nursing
- BPHARM:** Bachelor of Pharmacy
- BU:** Busitema University
- COVID-19:** coronavirus disease
- GU:** Gulu University
- KAP:** knowledge, attitude, and practices
- KIU:** Kampala International University
- KU:** Kabale University
- Mak:** Makerere University
- MBChB:** Bachelor of Medicine and Bachelor of Surgery
- MUST:** Mbarara University of Science and Technology
- SU:** Soroti University
- UCU:** Uganda Christian University
- WHO:** World Health Organization