


Effectiveness of Information Sessions About COVID-19 Vaccines in Healthcare Professionals Working in Geriatrics

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Abstract

Objectives: To determine change in (a) perceived knowledge about COVID-19 vaccines; (b) level of confidence in transmitting information about vaccines; and (c) intention to get vaccinated; among healthcare professionals (HCP) working in a Swiss academic geriatric department who attended a 30-minute information session about COVID-19 vaccines. **Measurements:** At the session's end, a self-administered questionnaire collected information about socio-demographics, personnel, and/or relatives' experience with COVID-19. In addition, participants were asked to rate their: (a) perceived knowledge about COVID-19 vaccines; (b) level of confidence in transmitting information about COVID-19 vaccines to patients and relatives; and (c) intention to get vaccinated; before and after the session. **Results:** Overall, 97 (42.2% of all HCPs) participated to 14 sessions and completed the questionnaire. Improvements were observed in knowledge, confidence in providing information, and intention to be vaccinated after the session (all $p < .001$). Similar improvements were observed in subgroup analyses by gender, age groups, profession (involved in direct care or not), and previous experience with COVID-19 (all $p < .010$). However, HCP aged 20 to 29 years were less likely to feel completely confident in providing information than those aged 30 to 49 and 50+ years (17.1% vs. 43.2% vs. 44.0%, respectively, $p = .031$) and to report being very likely to be vaccinated (31.4% vs. 56.8% vs. 56.0%, respectively, $p = .060$). **Conclusions:** These information sessions positively influenced HCP knowledge, confidence in providing information, and, to a lesser extent, intention to be vaccinated. Younger HCP reported similar improvements but remained less likely to consider vaccination. Additional efforts are needed to convince these undecided HCP and enhance COVID-19 vaccines uptake.

Keywords

COVID-19, vaccination, healthcare professionals, information session

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Introduction

Healthcare professionals (HCPs) working in geriatrics are expected to get vaccinated against COVID-19 to protect themselves and their vulnerable patients. In addition, HCPs are also a trusted source of information and thus play a critical role in informing and encouraging undecided patients and their relatives to get vaccinated (Heyerdahl et al., 2022; SteelFisher et al., 2021). However, HCPs share similar concerns about COVID-19 vaccines' efficacy and safety, which is their most frequently cited reason to not get vaccinated (Biswas et al., 2021; Ruiz & Bell, 2021).

No single best strategy to address vaccine hesitancy has been identified, but information sessions to increase knowledge regarding vaccination are a core component

of most effective programs (Razai et al., 2021; World Health Organization, 2014).

In a cohort of HCPs working in geriatrics, we investigated the effect of an information session about COVID-19 vaccines on their (a) perceived knowledge of the vaccines, (b) level of confidence in providing information about the vaccines, and (c) intention to get vaccinated.

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Methods

Setting and Participants

This study was conducted among all HCPs ($N=230$, from nursing, medical, medico-therapeutic, administration, logistic, and kitchen staff) working in two inpatients (acute and post-acute) units of the service of Geriatric medicine and geriatric rehabilitation of the University of Lausanne Medical Center (CHUV), Switzerland. These units admit older patients in need of acute care ($N=28$ -bed acute unit, ~ 700 yearly admissions, patients' mean age 87.4 ± 6.4 years in 2019) and of post-acute rehabilitation ($N=95$ -bed rehabilitation unit, $\sim 1,300$ yearly admissions, patients' mean age 83.9 ± 7.6 years in 2019).

Intervention

Between January and February 2021, all HCPs from the two units were invited to participate in a 30-minute information session conducted by a clinical nurse specialist and a senior geriatrician. The session was divided into two segments—a 15-minute video discussing the frequently asked questions on COVID-19 vaccines' efficacy and safety, followed by a 15-minute question-answer discussion. The session was conducted 14 times during the study period.

Measures

Information on sociodemographic characteristics, profession, and personal and/or relatives' experience with COVID-19 was collected through a self-administered questionnaire shared at the end of the session. The participants were also asked to rate their (a) perceived knowledge of the vaccines (high vs. intermediate vs. low vs. no knowledge), (b) level of confidence in providing information about the vaccines to patients and/or their relatives (completely vs. relatively vs. not really vs. not at all confident), and (c) intention to get vaccinated (very likely vs. somewhat likely vs. somewhat unlikely vs. very unlikely to be vaccinated), before and after the session.

Ethical Considerations

The Cantonal Commission on Ethics in Human Research granted this study an exemption from requiring written informed consent.

Statistical Analyses

Characteristics of participants were described using simple usual statistics (means and proportions). The Wilcoxon matched-pairs signed-ranks test was performed to compare the answers provided before and after the session among all the participants as well as subgroups according to age (20–29, 30–49, and 50+ years), gender (men vs. women), profession (involved in direct

care vs. not), personal and/or relatives experience with COVID-19 (yes self and/or relatives, vs. no). An analysis to compare the answers by age group was also performed using Pearson's chi-squared test. All analyses were performed using Stata, version 16.0.

Results

Overall, 97 (42.2%) of the 230 HCPs participated in the 14 sessions and completed the questionnaire (Supplemental Table S1). Most were women, aged between 20 and 29 years, with two-thirds involved in direct patients' care. About half had personal or indirect (relatives) experience with COVID-19.

Perceived Knowledge About COVID-19 Vaccines

Overall, about two-thirds (62.5%) of participants reported improvement of their knowledge after the information session. Indeed, the proportion of participants reporting a high level of knowledge increased from 15.6% to 47.4% ($p < .001$, Wilcoxon matched-pairs rank test; Supplemental Figure 1).

Confidence in Providing Information About COVID-19 Vaccine

A majority of participants (57.7%) reported a positive effect of the session on their level of confidence in providing vaccine information to patients and/or relatives. Indeed, less than one in ten participant (9.3%) felt completely confident before the session, but this proportion increased to more than a third (34.0%) after (Supplemental Figure 2). Inversely, the proportions of participants feeling not really (34.0%) and not at all (11.3%) confident in providing information before decreased to 7.2% and 1.0%, respectively, after the session ($p < .001$, Wilcoxon matched-pairs rank test).

Intent to be Vaccinated

Whereas about two-thirds (63.9%) of participants reported no effect from the information session on their intent to be vaccinated, a third (33.0%) reported a positive effect. Specifically, the proportion reporting they were very likely to be vaccinated increased from 33.0% before to 47.4% after the session (Figure 1). Although the proportions of all other categories decreased, almost 1 HCP in 5 (18.6%) still remained relatively (12.4%) or very (6.2%) unlikely to get vaccinated ($P < .001$, Wilcoxon matched-pairs rank test).

Subgroups Analyses

Similar improvements in knowledge, confidence in providing information, and intent to be vaccinated were

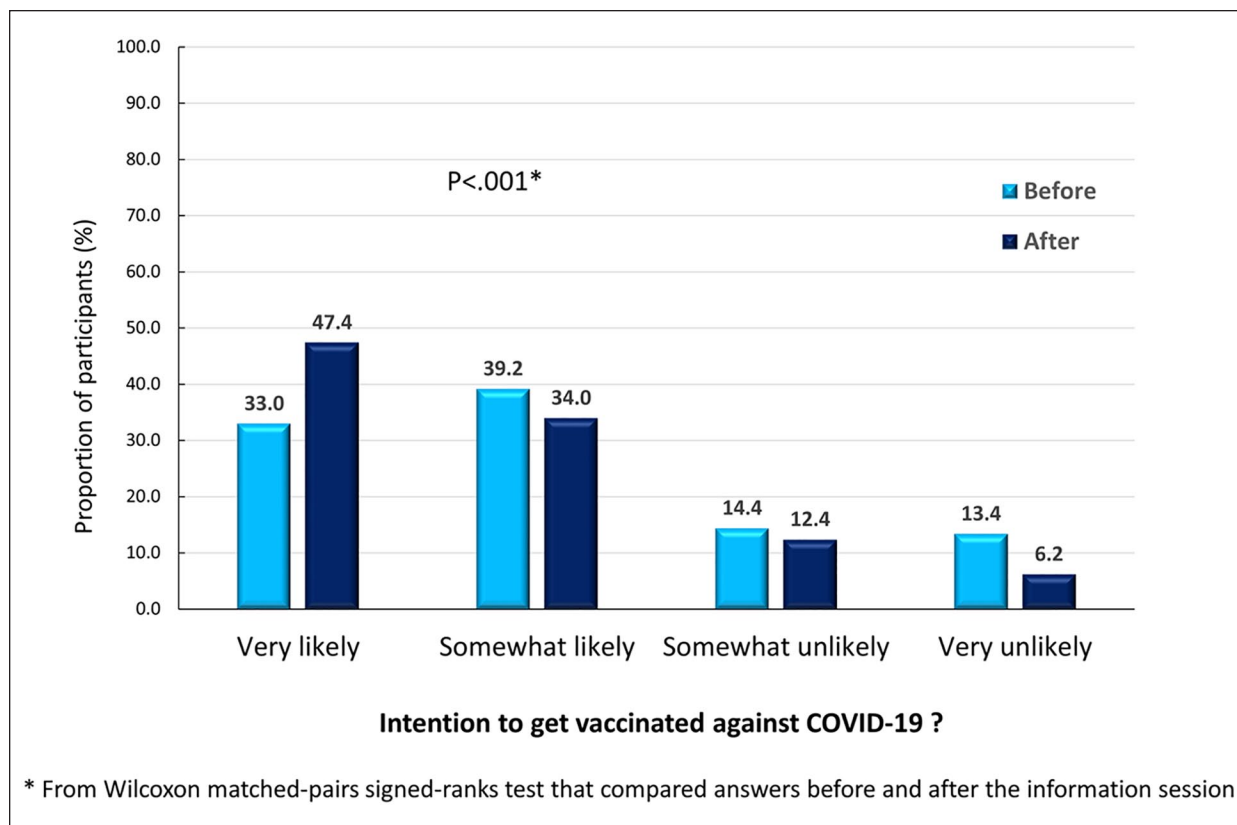


Figure 1. Self-reported intention to get vaccinated against COVID-19, before (light blue) and after (dark blue) the information session.

observed following subgroup analyses by sex, age, profession (direct patient care involvement [Y/N]), and experience with COVID-19 (all $p < .010$). However, the proportion of the participants aged 20 to 29 years rating their intention to get vaccinated as “very likely” was lower than that of their counterparts aged 30 to 49 and 50+ years (31.4% vs. 56.8% vs. 56.0%, respectively, $p = .060$, Pearson chi-square test). HCP aged 20 to 29 years were also less likely to feel completely confident in providing information than HCP aged 30 to 49 and 50+ years, (17.1% vs. 43.2% vs. 44.0%, respectively, $p = .031$, Pearson chi-square test).

Discussion

A 30-minute information session conducted for HCPs working in geriatrics resulted in significant improvements in their willingness to get vaccinated and in their knowledge of and confidence in providing information about COVID-19 vaccines. These results were consistent across sex, profession, and experience with COVID-19 (self and/or relatives).

These results are important from several perspectives. First, they suggest the potential effectiveness of relatively brief information sessions delivered by peers in improving HCPs’ intention to get vaccinated against COVID-19. Second, they show that HCPs may not have

the required knowledge of and confidence in providing information about COVID-19 vaccines. However, the public consistently cites the HCP as the most reliable source of information (SteelFisher et al., 2021), and most strategies to enhance vaccine uptake capitalize on professionals’ knowledge and willingness to inform. Thus, the results demonstrate that preliminary targeted education is essential to support HCPs in this task.

Finally, the observed age gap among HCPs is also a significant indicator that identifies those, among HCPs, to primarily target to enhance vaccine uptake. The results of this study are consistent with those of studies targeting the general population, which found an inverse relationship between age and the intention to get vaccinated (Ruiz & Bell, 2021). Many younger adults think that COVID-19 is harmless to them, but strong and unambiguous messages about HCP responsibility should be delivered to protect older patients when working in geriatrics. Indeed, only 71.4% of Swiss adults aged 20 to 29 years are currently fully vaccinated whereas this proportion reaches 80.5%, 86.1%, 90.9%, and 94.9% in those aged 50 to 59, 60 to 69, 70 to 79, and 80+ years, respectively (Swiss Federal Office of Public Health, 2022).

Despite several limitations, such as the pre-post design and lack of information on actual vaccine uptake, the results showed that a single information

session enhanced HCP knowledge, confidence in providing information, and intention to get vaccinated. However, these encouraging observations notwithstanding, a substantial minority of HCPs, especially the younger ones, remained unlikely to get vaccinated, further emphasizing the need for additional efforts to convince undecided HCPs and enhance COVID-19 vaccine uptake.

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Author Contributions

Study concept and design: HG, WB, and CJB; data collection: HG and WB; data analysis and interpretation: HG, WB, HK, and CJB; drafting the manuscript: HG and CJB; critically reviewing the manuscript for important intellectual content: HG, WB, HK, and CJB. All authors revised and approved the manuscript's final version.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Ethical Approval

This study was considered by the Cantonal Commission on Ethics in Human Research as a quality improvement study that did not require formal approval, and it was granted an exemption from requiring written informed consent. Nevertheless, the participants were informed about the study's goals and design at the beginning of each session and that participation (i.e., answering the questionnaire) was voluntary.

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Supplemental Material

Supplemental material for this article is available online.

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