Empowering the public during the COVID pandemic through interactive social media platform

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ABSTRACT

During the COVID-19 pandemic, healthcare professionals and academic facilities are called to provide leadership in disseminating accurate and timely information through approaches that meet the needs of the public. Graduate students from a university in Taiwan collaborated with experts to provide interactive live broadcasting sessions on the COVID-related topics to the public through the Facebook platform. The broadcasting sessions also trained the students to communicate COVID-related information through succinct and interactive presentations. Twelve broadcasting sessions were conducted twice a week for three weeks in May 2020. Upon completion of the broadcasting sessions, students demonstrated growth in professional confidence, assessment of the public's knowledge gaps and needs, and preparation and delivery of professional live broadcasts. We recommend creating a live broadcast training application through an artificial intelligence (AI) expert system. Multidisciplinary academic-practice collaboration in preparing for the broadcasting and engaging in dialogues with the public is recommended.

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Introduction

The COVID-19 outbreak has brought unprecedented challenges to the global society. The novelty of COVID-19, mounting burdens on the healthcare systems, and multifaceted consequences have caused anxiety and uncertainty in the public (Shamekh et al., 2020). In Taiwan, lower numbers of COVID cases and deaths were achieved through implementation of swift nationally coordinated aggressive actions (Summers et al., 2020; Taiwan Centers of Disease Control, 2021). Educational television advertisement was one of the actions that were implemented to encourage handwashing and social distancing. However, these short campaigning videos only provided one-way communication with the public. It is crucial to provide timely, accurate information to the public through interactive and accessible means to alleviate anxiety and empower the public during the pandemic. According to the

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Taiwan National Development Council (2016), 67% of the adults obtained health information through the Internet. Worrall et al.'s (2020) reported that Google searches on the COVID-related topics have significantly increased during the pandemic. The public uses mobile and social media as key sources to obtain COVID-related information for decision-making and actions (Google Trends, 2020). However, much of the information from the Internet may be misleading and lacks support from credible sources (Lo & Chiu, 2015). Ensuring the public obtains accurate information during the pandemic is critical. Healthcare professionals and academic facilities are called to be part of the solution by providing leadership in disseminating accurate and timely COVID-related information through approaches that meet the needs of the public.

In this paper, students who enrolled in the Master's program of Allied Health Education and Digital Learning at a university in Taiwan collaborated with a team of experts to provide interactive live broadcasting sessions on the COVID-related topics to the public through the Facebook platform. The broadcasting sessions served two purposes: (1) to provide accurate and timely COVID information to empower the public, and (2) to train students in communicating the COVID-related information through succinct and interactive presentations. IRB approval was obtained from the Research Ethics Committee, National Taiwan University (201905ES181) prior to implementing the broadcasting sessions.

Live Broadcasting Sessions

Conducting live broadcasting sessions on COVID-related topics was a required project for the students enrolled in a two-credit hour master's course. All students ($N = 12$) were registered nurses with 7 to 23 years of experiences in teaching or practicing in various health care settings. Most of their teaching experiences centered on hospital in-services or patient/family education. The broadcasting sessions were conducted through the Facebook fan page of the BIIC (Behavioral Informatics & Interaction Computation) lab twice a week for 3 weeks in May 2020. Facebook was selected due to its high popularity and usages among adults. The broadcasting sessions were conducted at 7 pm when the highest browsing frequency occurs. Prior to the first session, a 23-second promotional video (https://youtu.be/EJEQCS9DTic) and a "tag your friends" lottery were implemented on the Facebook fan page for 2 weeks to advertise for the broadcasting sessions.

The students and course faculty collaboratively identified the following 12 topics for the sessions based on a survey of their friends and family members: disinfecting environment, COVID-19 response plans for long-term care facilities, facial masks, hospital protective measures, asymptomatic COVID infections, social distancing, ER triage processes, COVID prevention in operation rooms, COVID testing, COVID vaccines, and personal protective equipment. The students stayed abreast on the pandemic updates from professional organizations (e.g., Center for Disease Control, World Health Organization), and consulted with subject experts such as physicians, seasoned nurses and educators, long-term care facility staff, operation room staff, infectious disease experts, technology specialists as they developed the presentations. The course faculty provided individualized training on speaking skills and used reflection and debriefing to assist with finalizing the presentations.

The broadcasting sessions occurred at the university's recording studio where adequate professional technological support and equipment were available. Each session covered two topics. After a 10-minute live presentation, the presenter reviewed the audience's questions from an iPad and engaged in 5 to 10-minute online interactions in the form of text. Evaluation of the Facebook statistics showed that the most frequently viewed sessions were "COVID testing" and "COVID vaccines" (1,656 times views by 733 individuals). The public was highly interested in knowing if they were COVID-positive, when to receive COVID testing, and how to prevent COVID infection. The audience's Facebook posts indicated knowledge from the sessions alleviated their anxiety, promoted their support for the governmental enforcement policies and provided empowerment over the pandemic.

Lessons Learned

Upon completion, students demonstrated growth in professional confidence, assessment of the public's knowledge gaps/needs, as well as preparation and delivery of professional live broadcasts. For majority of the students, this was their first experience in conducting live broadcasting sessions on a rapidly evolving pandemic that involves uncertainty at multiple sectors of the global society. They experienced conflicting ambivalence between fulfillment of their professional duties to communicate accurate information and anxiety in generating strong public reactions as they educated the public. Additionally, conducting live presentations on Facebook without face-to-face interactions with the audience was challenging for them, particularly if the audience's questions were beyond their expertise. An example of such question was "what are the differences between a P100 mask and a N95 mask?". The presenter consulted with mask production companies, searched for credible information, and then posted the answer on Facebook after the session. An onsite interdisciplinary team is recommended to respond to audience's questions in real time. Additionally, it is challenging to increase the click through rate and to reach broader audience. Approaches that fit with the learning preferences and needs of individuals with diverse backgrounds, ages, and technological literacy should be used to effectively reach a broader scale of public.

Recommendations

It was a time-consuming and labor-intensive process for the course faculty and the teaching assistant to provide individualized guidance to each student for their development and delivery of the broadcasting sessions. We recommend creating a live broadcast training application through an artificial intelligence expert system. Students may upload their rehearsal videos or conduct live presentations to the artificial intelligence system to obtain experts' feedback and recommendations for their ongoing professional development. Furthermore, the COVID pandemic has created increasingly demanding workloads on the healthcare professionals. Having to come to a recording studio to conduct broadcasting sessions may create extra burdens. Thus, we recommend providing training to familiarize health care professionals with the broadcasting software and equipment to allow for broadcasting at their choices of convenient locations. Additionally, multidisciplinary academic-practice collaboration in preparing for the broadcasting and engaging in dialogues with the public is recommended.

Conclusion

Live broadcasting through social media platform is an effective and interactive approach for healthcare professionals to provide accurate COVID-related information, prevent dissemination of misinformation, alleviate public anxiety, and empower the public amidst the disruptive challenges and uncertainty brought by the COVID pandemic. It is our hope that this innovative model may overcome the COVID-induced barriers in interacting with the public, mobilize health care professionals to enter communities, and assume a proactive leadership role in knowledge dissemination during the pandemic.

Author Contributions

All authors of this paper have directly participated in the planning or execution, and/or analysis of the study. All authors of this paper have read and approved the final version submitted. The contents of this manuscript have not been copyrighted or published previously. The contents of this manuscript are not now under consideration for publication elsewhere. The contents of this manuscript will not be copyrighted, submitted, or published elsewhere while acceptance by the Journal is under consideration. There are no directly related manuscripts by any author of this paper. Negotiations concerning the manuscript can be sent to: Chu-Yu Huang, Ph.D., RN, Professor, School of Nursing, Cedarville University, Cedarville, OH, USA.

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