

Covid-19 pandemic on WeChat-based urological E-learning in China: a mini review

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Abstract: The last decades witnessed rapid development of mobile Internet, which has remarkably changed people's lifestyle. As one of the most popular social media in China, WeChat has severed as an auxiliary learning tool. The pandemic of Covid-19 has led to transitions of e-learning in medicine education including urology. Travel restrictions and social distance concerns made more citizens to work and study through WeChat and masses of related publications could consequently be searched. The present mini review focused on impacts of Covid-19 pandemic on WeChat-based urological online learning in China.

Keywords: medical education, Covid-19, social media, e-learning, urology

The last decades witnessed rapid development of social media. As one of the most popular social media in China, WeChat has contributed to continuous medical learning to a certain degree. The pandemic of COVID-19 has led to transitions of online learning in medicine education including urology. This mini review focused on impacts of Covid-19 pandemic on WeChat-based urological online learning in China.

1. Impacts of WeChat on medical education in China

Social media applications have been widely used in e-learning all over the world. A study conducted by Weill Cornell Medical College illustrated that Twitter, podcasts, and blogs were frequently used to engage learners and enhance graduate medical education, while YouTube and wikis were more popular in teaching technical skills and promoting self-efficacy [1]. In China, WeChat is a popular social application based on either computers or cellphones, which contains multiple functions such as text or voice messages, group chats, subscribe to public accounts, and applets [2]. According to the 47th China Statistical Report on Internet Development, by the end of 2020, the amount of online education users in China has increased 109 million compared with that in the year of 2019. Therefore, China has arduous tasks to narrow the gaps in an accessible, efficient and convenient way. The development of the social media greatly challenges traditional education mode, it also helps break departed imbalance between doctors and patients, or doctors from different areas [3].

In the year of 2017, all Chinese provincial Centers for Disease Control and Prevention provided the public with a total of 5976 articles on health information through WeChat official accounts [4]. Chinese public health authorities relied on social media for monitoring the epidemic of Covid-19 and public concerns by analyzing the hot words in WeChat [5]. A scoping review of WeChat based education in healthcare from mainland China demonstrated that WeChat was used in both university settings and hospital settings, while integration of WeChat education and face-to-face education was more common in university settings, whereas hospitals used either integrated or WeChat solely strategies, and the majority of studies found positive outcomes regarding WeChat education [6]. An observational descriptive study among 705 tertiary referral hospitals in China also indicated that 76.2% of the hospitals have created official accounts on either WeChat or Sina Weibo, the top 2 popular Chinese social medias, while hospitals were more inclined to use WeChat [7]. As medical conferences are forums for scientific research and continuing medical education, smartphone applications like Facebook, Messenger, WeChat were found to be effective for immediate communication and troubleshooting among the participants of medical conferences [8]. In the practice of problem-based learning, use of WeChat dispensed with the access to a computer, which broke the spatial and temporal limitations of the traditional classroom, stimulated students' learning interest and enthusiasm by improving self-directed learning ability and enhancing collaboration with peers [9].

A random research involving Chinese anesthesiology residents found that applying WeChat public platforms to medical standardized training significantly improved teaching efficacy, satisfaction, quality and enhanced comprehensive assessment results [10]. Another randomized controlled trial also revealed that WeChat-based training for nurses significantly improved professional knowledge and intentions to make changes to achieve early detection of dementia [11].

The applications of social media in healthcare and its role in scientific communication provide great opportunities in the urogenital community [12]. Consequently, urologists around the world have been using social media for business affairs, academic conferences and health providing [13]. A dramatic increase in social media use among Chinese urologists during 2014 to 2016 was observed, institute location in the Eastern China and age below 35 years old were independent predictors of social media use, moreover, an increasing number of urologists used social media for professional purposes and benefited a lot [14].

2. Impacts of Covid-19 on urological e-learning through WeChat

As the outbreak of Covid-19 attracted extensive attention worldwide. Shortage of personal protective equipment, suspension of internship, reduction in conventional surgical cases unavoidably affected medical and surgical learning, and potential solutions might include the use of virtual education, teleconference, social media [15]. Medical schools in the UK have withdrawn their students from all clinical placements to mitigate transmission of the virus [16]. As challenges and opportunities coexist, some senior medical students in the UK graduated early to join the front-line doctors, which provided them with unique opportunities for self-directed learning in a range of clinical and research settings, and the experiences would undoubtedly benefit medical training and self-development [17].

During the pandemic of Covid-19, the proportion of urological residents experiencing a severe reduction or complete suppression of training exposure for clinical practice and surgical activities, and the reduction was even more pronounced for residents attending the final year of training [18]. Meanwhile, travel restrictions and limits have brought about a preference towards online meetings in urogenital associations despite the irreplaceability of the face-to-face manner (Hameed et al., 2021). Given above, the pandemic has restricted face-to-face learning and significantly promoted transformation of medical continuing education patterns [19]. Medical educators were inevitably supposed to re-evaluate how to educate learners of all levels [20]. Clinical teachers from India implemented online classes using Google Classroom coupled with Google Meet for Video-conferencing [21]. In some institutions of Singapore, most continuing medical education programs have been switched to video conferencing and some curricula utilized small group teachings via online learning modules, while for surgical residencies, they got through archived surgical videos with technical pointers from experienced faculties [22].

Online learning has been shown to help foster self-learning and to be as successful as traditional didactics. Furthermore, many medical students found online learning enjoyable for communication and making use of the wide variety of online resources and as a result, online education were supposed to help promote learning procedures during Covid-19 pandemic [23]. In addition, for international students who have returned to their native homes during the coronavirus outbreak, online teaching and learning platforms were beneficial due to their worldwide accessibility [24].

Medical education in the time of social distancing aroused people's attentions to social media such as Twitter, which have been widely used in education and conferences sharing among global urogenital communities [25]. Urogenital online learning was consequently forced to rapidly adapt to the Covid-19 situation and urologists adopted web-based platforms to develop virtual education programs to fill the gap of travel restrictions and social distance concerns [26]. According to the perspective of American Confederation of Urology, since the activity of the urology department significantly reduced and some staffs were assigned to Covid-19 patients care, 75% of the urological residents stated that their surgical training has been completely affected and 93% of them had no choice but turned to receiving urological information through social media like Skype, ZOOM meeting [27]. An international survey among Societe Internationale d'Urologie members demonstrated that in the time of Covid-19, urologists have used online learning for their continuing medical education, however, younger urologists are more likely to use all forms of digital learning methods while older urologists prefer fewer methods [28].

3. Perspective

The pandemic of Covid-19 has affected the patterns of urological education to a certain extent, and

medical students have benefited from e-learning during that time. To avoid misgivings of the unprofessional contents when establishing an online medical learning platform through social media like WeChat, the Health on the Net Foundation Code of Conduct (HONcode) should be applied to evaluate the suitability of articles disseminated by health-related WeChat public accounts [29]. Besides, the peer-review system may be taken into consideration for the appraisal of original online learning resources and a quick double-check system can be used in the technical review of compiled or translated contents.

Conflict of interests

None.

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