

# Media Influencing Public Intentions for Influenza Vaccination

Subjects: Others

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Influenza has become a global public health issue. As an effective means of prevention and treatment, it is desired to improve public acceptance of influenza vaccination. Researchers have found a correlation between media communications and influenza vaccination. They believed that media information impacts public awareness of influenza prevention, further affecting influenza vaccination. However, few studies specifically discuss the influence mechanism of media communication, public awareness of the influenza vaccine, and influenza vaccination. Furthermore, research on media communication and influenza vaccination has rarely focused on China.

Keywords: technology acceptance model ; influenza vaccination ; media exposure ; media credibility ; behavioral intention

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## 1. Introduction

Influenza has become a significant public health issue to be addressed globally <sup>[1]</sup>. The vaccine is generally considered one of the most cost-effective ways to avoid disease <sup>[2]</sup>. However, the WHO listed the 'global influenza pandemic' and 'vaccine hesitation' among the top 10 global health threats in 2019 <sup>[3]</sup>. Global vaccination is still a weak link in the progress toward beating influenza. As for influenza vaccination in China, although the national health authority has continuously issued influenza prevention and treatment guidelines, vaccination coverage is still low, at only 2% to 3% per year <sup>[4]</sup>.

There are many reasons for the low vaccination rate and vaccine hesitancy. Studies have shown that media communications correlate with influenza vaccination to some extent. On the one hand, the number of media reports, the timing of reports, and immunization promotion affect the influenza vaccination rate <sup>[5]</sup>. Traditional mass media, social media, online media, and other media are considered effective methods for promoting influenza vaccination <sup>[6][7]</sup>. On the other hand, media communications also negatively influence public awareness of the influenza vaccine. Some studies believed that mass media and social media information had become an important factor influencing 'influenza vaccine hesitancy' and 'influenza vaccine panic' <sup>[8][9]</sup>. Misleading media information, such as frequent hand washing and eating citrus fruits share the same prevention effectiveness as vaccination, weakens people's intention to get vaccinated <sup>[10]</sup>. Meanwhile, some scholars noted that relying on mass media and social media for receiving information against influenza is limited. Family members, health care professionals, and community organizations are also virtual channels <sup>[10][11][12]</sup>.

## 2. Media Exposure and Intentions for Influenza Vaccination

This research identified that media exposure cannot directly influence the Chinese public's intentions toward influenza vaccination, which differs from the findings of some related studies. For instance, Shropshire et al. found that mass media campaigns about improving influenza vaccination on campus increased vaccination coverage among university students <sup>[5]</sup>. Bonnevie et al. demonstrated that groups exposed to a flu vaccination campaign on social media were more likely to receive the influenza vaccination <sup>[13]</sup>. The difference can be explained from two aspects. On the one hand, the existing literature notably enhanced that influenza vaccination coverage is related to the number, timing, and promotion content of media releases. This entry had a different focus on the width and the frequency of media exposure rather than the usage of a specific media form. On the other hand, most of the previous research examined cases from countries outside of China, which have different media communication relative to China. In addition, this finding suggests that it is not enough to promote influenza vaccination to the public through media communication; other valuable factors must also be considered.

### **3. Media Credibility and Intentions for Influenza Vaccination**

This research examined that media credibility cannot directly influence intentions toward influenza vaccination, which is different from findings in previous research. For example, Burki researched the effect of media credibility on people's intentions to receive influenza vaccination during the 2009 H1N1 pandemic in Canada, and it revealed that media trust is significantly important to vaccination attitudes. In particular, vaccine hesitancy occurred when respondents felt confused by media information <sup>[9]</sup>. Another research about the influence of media trust on COVID-19 vaccination argued that a high trust in traditional media decreased vaccine hesitancy and increased public motivation to receive COVID-19 vaccination <sup>[14]</sup>. However, this research indicated that media credibility could affect people's intentions to receive influenza vaccination through perceived usefulness (PU) and perceived ease of use (PEOU) as PU and PEOU reflect public awareness of influenza, influenza vaccine, and influenza vaccination. Compared with media exposure, the public's perception of the flu and its vaccine is more influenced by media credibility, when receiving relevant information. Participants in this research have more trust in professional medical institutions, traditional television media, and school health education institutions than other channels.

### **4. PU, PEOU, and Intentions for Influenza Vaccination**

This research argued that PU could influence people's intentions toward influenza vaccination. Nevertheless, the influenza vaccine is the non-National Immunization Program (NIP) vaccine in China, and the low coverage of non-VIP vaccination is related to a weak awareness of influenza and its vaccine <sup>[15]</sup>. For example, some people insist that children and the elderly don't have to get an influenza vaccination <sup>[16][17]</sup>, reflecting the public misunderstanding and the weak perceived usefulness of the benefits of influenza vaccination. A study on flu vaccine hesitancy showed that bias in the perceived risk and the perceived effects of influenza vaccine mainly contributes to influenza vaccine hesitancy <sup>[18]</sup>. Combined with the conclusions above, professional medical institutions, traditional television media, schools, and other channels with high media credibility can improve the public's PU of the influenza vaccine through intensive and qualified communication.

In influenza vaccination promotion, PEOU shares the same importance as PU. As a non-NIP vaccine, the cost of and the access to the influenza vaccine also affect its vaccination coverage <sup>[15]</sup>, which is also supported in this research. Furthermore, medical insurance in most regions of China does not cover the influenza vaccine, which needs to be given annually. Therefore, PEOU is essential to improve user experience and to promote vaccination. Specifically, PEOU refers to the location, cost, and availability of the influenza vaccine, affecting the public's intentions to get vaccinated. Thus, the researchers suggest releasing PEOU-related information via official and reliable media to promote influenza vaccination. In particular, information with public concerns, such as the appointment and vaccination price, deserves in-depth explanations.

### **5. Media Exposure and Media Credibility**

This research showed that media exposure has a significantly positive influence on the public assessment of media credibility. Previous research also supported this finding and enhanced the significant role of credible media exposure in influenza vaccination promotion <sup>[19][20][21]</sup>. Increased exposure of the public to media allowed audiences to have the ability to assess influenza prevention information. With the assessment, the public built trust in certain media, which further influenced their preference in preventing influenza.

According to the frequency of media exposure, the top five channels in this research where respondents received influenza information were social media, mobile applications, portals, interpersonal communication, and television. Social media and interpersonal communication have certain advantages over traditional media regarding media usage frequency. In this research, the top five influenza information channels with high media credibility among the public were professional medical institutions, television, school health education, grassroots organizations, and mobile applications. Compared with social media, health education from public institutions and television has more advantages.

On the one hand, although social media has shown absolute advantages in information dissemination based on new media technology, which indicates the issues in social media, such as a lack of scientific credibility, authenticity, and professionalism in communication. Studies also illustrated that social media brings risks such as providing low-quality information, violating personal and professional boundaries, and damaging the professional image of the field of health communication <sup>[22]</sup>. On the other hand, professional medical institutions, schools, and grassroots organizations have great media credibility when introducing influenza and influenza vaccine-related knowledge. A study also demonstrated that people prefer the disease prevention information released by authoritative, professional, and reliable media <sup>[23]</sup>. As mass

media, television has been used to deal with public health emergencies for a long time, including epidemic knowledge popularization and disease prevention and control; thus, it has gained a high media credibility.

To summarize, media with great credibility is necessary for spreading influenza and influenza vaccine information, especially public institutions with authority and traditional media. Meanwhile, concerning the high exposure of social media, it is valuable to enhance the scientific, authorized, and professional content on these platforms, contributing to a higher media credibility and a stronger promotion of influenza vaccination.

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