Issues and Opportunities of adopting Social Media in Health Disparities Interventions: Hepatitis B in the Asian American Community

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Abstract
The engaging/interactive features of social media has made it increasingly popular for health promotion and patient education. Increasing utilization rates of social media among racial/ethnic minorities demonstrates its potential to address health disparities. Hepatitis B infection is among the greatest racial/ethnic health disparities in the U.S. This study discusses the opportunities for social media to support hepatitis B interventions, as well as the current issues preventing it from greater impact.

Introduction
Consumer health informatics tools such as social media are becoming increasingly important in health promotion and patient education. Patients are relying on the internet more than their care providers as a source of health care information. Emerging social media websites, including social networks, blogs, wikis, videos etc, are increasingly used for online health searches. Studies on the utilization pattern of social media suggest its potential to help address health disparities. For example, minority Americans are higher utilizers of mobile internet access (especially handheld devices). While social media creates opportunities of engagement and interactivity, issues with the adoption and utilization of social media tools can lead to digital disparities.

Chronic hepatitis B infection is one of the major racial/ethnic health disparities in the U.S. Asian Americans and Pacific Islanders constitute half of the 1.25 to 2 million chronic hepatitis B cases of the general U.S. population. Although it is vaccine-preventable, hepatitis B can lead to liver cirrhosis and cancer if untreated. Cultural and financial barriers have been the main challenge in the management of hepatitis B patients (Table 1). A recent study shows that 29.5% of surveyed Asian immigrants learned about hepatitis B on the internet, a comparable number compared to the data of other information sources. Although physician-based HBV screening interventions were shown to be most effective, it was suggested to be complemented by community health campaigns, which can be achieved through social media. Witnessing the impact and potential of social media during my internships on hepatitis B interventions, I see both opportunities and barriers to addressing health disparities through social media. Although this is a case study on hepatitis B in the Asian American community, many of the ideas discussed, such as “Grassroots accessibility,” may be useful in other scenarios. Therefore, this discussion may provide reference to other diseases and other populations, locally and worldwide.

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Table 1. Challenges of Hepatitis B infections faced by Asian American Patients

Opportunities
Previous studies of community hepatitis B programs have shown that campus-community partnerships and grassroots community organizing are crucial efforts in addressing health disparities in a diverse and underserved community. Social media provides the resource to support and enhance both efforts.

Youth-targeting: The high rate of hepatitis B infection can be reduced through vaccination. Studies indicate “Asian students” to be a high risk group, particularly those who were foreign born. Despite the laws requiring immunization prior to school enrollment, many youths are still unvaccinated. Previous community initiatives focused on youth hepatitis B education and programming have shown success in bringing together diverse
institutional efforts. Social media makes it easier to reach out to the youth, given that younger populations age 12-24 are the majority users of user-generated content and other internet communication tools.

**Grassroots Accessible:** Different from traditional media, social media allows consumers to be active participants rather than passive recipients. Individuals are more likely to be engaged, and they may also encourage their friends and families to participate in health-promotion interventions. Within a short time, the consumer could share their experiences and opinions with progressively larger audiences. As an example, the Jade Ribbon Campaign Youtube video on hepatitis B was viewed more than 170,000 times within a year. Contents published on social media can be tailored toward particular groups, based on their cultural and language needs. For example, hepatitis B dissemination materials are often translated into different languages with illustrations, which are helpful to people with limited English proficiency and/or general education. Moreover, from an agency point of few, health promotion through social media requires little funding compared to the traditional mass media.

**Current Issues/barriers:**

**Inconclusive data:** Although social media allows for information to be disseminated horizontally rather than top down, the current trend data is not yet conclusive on who exactly is generating and accessing the information concerned. Authorship is hard to determine and sources are often not provided. It is still a challenge to keep track of the targeted population and nail down the the effectiveness of health promotion efforts.

**Limited research/literature:** In an attempt to conduct literature review on this topic, very limited research literature was discovered. Existing literature on the implementation of social media in health promotion is focused on the broader picture. So far, literature on specific diseases or specific parts of the population is sparse.

**Engagement of Care Providers:** Similar to the challenges faced by patients, care providers of hepatitis B are also facing challenges themselves. Barriers faced by providers include underestimation of the risk of HBV infection in Asian Americans, incorrect use of screening tests, lack of knowledge regarding the cost-effectiveness of screening and the availability of safe and effective therapy. Effective community health campaigns cannot replace physician-based screening interventions.

**Conclusion**

Given its ability in reaching out to a variety of at risk groups, social media has definitely enhanced the hepatitis B disparities intervention. However, sustainable and effective impact of social media on targeted populations requires further research and literature. Health disparities of different disease and populations are associated with different cultural and financial barriers. Understanding and addressing health disparities with social media requires specific approaches toward specific populations and their needs.

**References**