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Health literacy of ethnic minority in remote China: precise intervention is needed

Huaqin Hu, Juming Liu, Yaxin Liang, Yihua Xu

Department of Epidemiology and Health Statistics, Tongji Medical College, Huazhong University of Science and Technology 430030 No.13, Aviation Road, Wuhan, China

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At the 9th Global Conference on Health Promotion SHANGHAI 2016, WHO has identified improving health literacy as one of the core mechanisms for achieving the Sustainable Development Goals (SDGs) [1]. Yet health literacy of ethnic minorities in remote areas of China is far from favorable. Annual national surveys have shown that the proportion of Chinese residents with adequate health literacy has increased from 6.48% in 2008 to 23.15% in 2020 [2, 3]. Despite the improvement, substantial disparities still exist. For example, areas close to economic centers such as the east (29.06%)and central regions (21.01%) tend to have higher health literacy levels than remote areas in the west (16.72%), where a large number of ethnic minorities live [4]. Improving health literacy can improve health inequalities among ethnic minorities, and there is little research on this field for ethnic minorities.

Health literacy has been defined by two levels, "the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others" and "the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others." [5]. The past several studies have shown that ethnic disparities in health literacy are real. Reasons have been identified as language barriers, limited literacy, unassessed health needs, and poor quality of available health information and services [6–9]. However, one should note that research on health literacy among ethnic minorities in China has remained observational [6, 9–12].

The Chinese government is working on eliminating ethnic disparities in health literacy, primarily through promulgating health information [13]. The form and content of propaganda are similar across regions, including pamphlets, display boards, lectures, counseling activities, and individual health education alongside health services. However, ethnic minorities need more than this. Studies on health literacy interventions supported by theoretical models are rarely conducted [14]. Promoting health literacy requires precise and evidence-based interventions supported by a strong theoretical framework.

Evidence from health literacy studies in the United States suggests that model-based health literacy assessment or intervention has led to a better understanding of the needs of community members from racial and ethnic minority groups and meeting those needs [15, 16]. In domestic, a comprehensive health literacy intervention study based on stage of changes theory (SCT) for Kazakh-Chinese hypertensive patients in pastoral areas is a good start; Zhang et.al. conducted this randomized controlled trial [14] came to a conclusion that the intervention combined health literacy with SCT is feasible and effective, and the short-term maintenance effects of the intervention is satisfactory.

As discussed above, existing observational studies have identified several factors that may influence health literacy among ethnic minorities. Therefore, the next step should be carrying out intervention studies on health literacy among them for granted. In the present study, we would like to provide a process guiding the health literacy intervention of different ethnic groups. There are 55 ethnic minorities in China other than Han. Researchers can analyze the health literacy -related problems based on different backgrounds, nationalities, and scenarios they confront and make corresponding improvements. First, the health status of ethnic minorities differs from that of the Han due to high-intensity labor, residential segregation, ethnic culture, and living habits. For example, Lahu people are accustomed to sleeping in poorly ventilated kitchens and smoking water pipes, leading to a high incidence of respiratory disease. Therefore, being able to identify health-related problems of ethnic minorities and conduct problem-

E-mail address: xuyihua_6@hotmail.com (Y. Xu).

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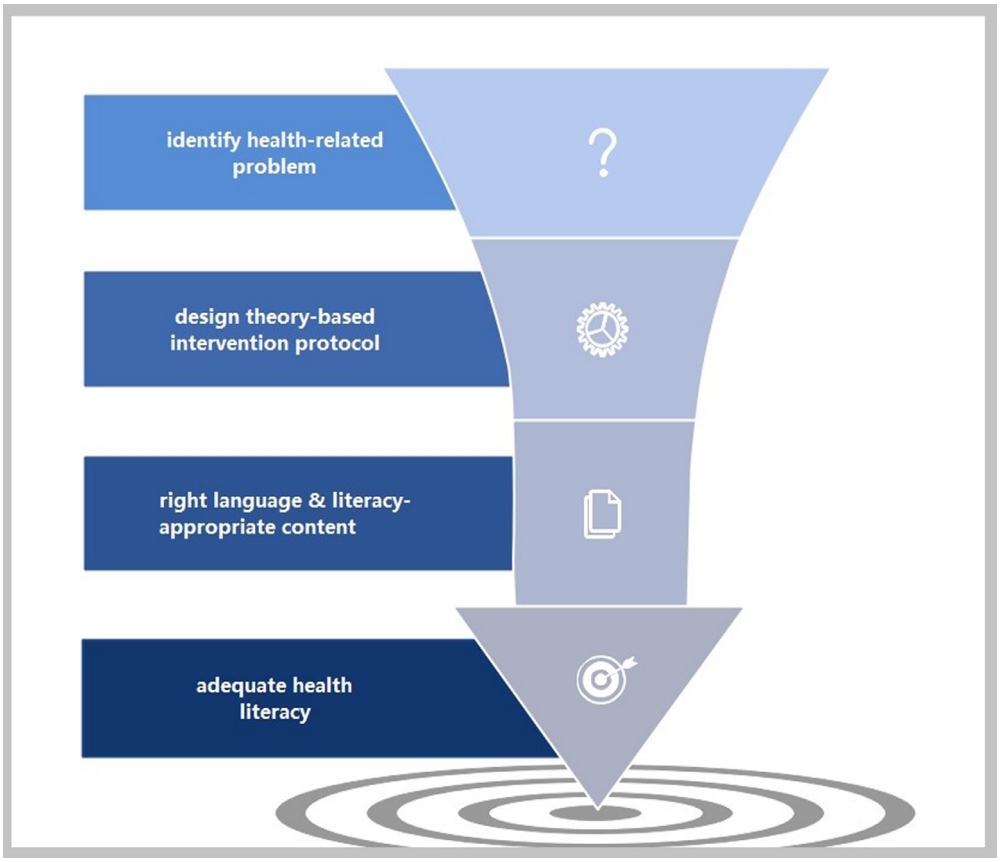

Figure 1. A process focusing on health literacy intervention among ethnic minorities.

oriented health education is meaningful. Secondly, intervention protocols should be designed based on a sound theoretical model (e.g., theory of Planned Behavior, capacity,opportunity,motivation - behavior model, COM-Betc.). Given that health literacy interventions are population-oriented, the best option is a cluster randomized controlled trial at community level. Thirdly, language barriers and limited literacy are major challenges to health literacy intervention among minorities, making it important to choose the suited language as well as literacy-appropriate content. For instance, Lahu people don't have written language, then an educational picture like a smoker's lung serves better than a text pamphlet as an health literacy intervention. Eventually, make the goal of improving health literacy in ethnic minorities (Figure 1).

Health China 2030 has made it a strategic objective to improve people's health literacy across the country. In such context, eliminating ethnic disparities in health literacy, thereby improving health inequalities among ethnic minorities in remote areas, is both a moral duty and a population responsibility. Existing approaches to improving health literacy among the population are universal, but such approaches are sometimes culturally insensitive, unfocused, and rigid. When national approaches for health literacy intervention favor the majority, as a minority, they need precise intervention.

Declaration of Competing Interest

We declare no competing interests.

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