

REVIEW

The research status and development trend of children health education

Dafang Wang

Department of Pediatrics, Tsinghua University YuQuan Hospital, Beijing 100040, China



Correspondence to: Dafang Wang, Department of Pediatrics, Tsinghua University YuQuan Hospital, Beijing 100040, China; E-mail: wangdafang73@163.com

Received: January 2, 2022;

Accepted: March 6, 2022;

Published: March 12, 2022.

Citation: Wang D. The research status and development trend of children health education. *Adv Gen Pract Med*, 2022, 4(1): 24-28.
<https://doi.org/10.25082/AGPM.2022.01.007>

Copyright: © 2022 Dafang Wang. This is an open access article distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by-nc/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.



Abstract: In pediatric clinical practice, it is found that common and frequently-occurring diseases in children have the characteristics of acute onset, rapid change, aggregation and being preventable and controllable. School health education is particularly important for the prevention and control of common and frequently-occurring diseases in preschool and school-age children. School health education refers to the combination of kindergarten, school and other places of staff advocated by the various learning experience, the development of students from now on to learn to deal with various expected health challenges with necessary cognitive skills and behavioral skills. The former State Education Commission and the Ministry of Health jointly promulgated the “Regulations on School Health Work” in 1980, making our country’s school health work followed by regulations. In 1992, the “Basic Requirements for Health Education for Primary and Secondary School Students” was jointly promulgated, which clearly stipulated the objectives and basic contents of health education in primary and secondary schools in China. In 2007, the Central Committee of the Communist Party of China and the State Council in the ‘Opinions on Strengthening Youth Sports to Enhance the Physical Fitness of Adolescents (Central Document No.7)’ required that ‘local education administrative departments should include the implementation of health education in schools as one of the important indicators of school supervision and assessment’, and ‘schools at all levels should actively carry out adolescent health education activities such as disease prevention, scientific nutrition, health and safety, drug control and tobacco control, and ensure the necessary health education time’. Although the health problems of primary and middle school students have received continuous attention and investment from the state and society, the health literacy of primary and middle school students in China has not been significantly improved in recent years, and the overall downward trend of students’ health level has not been fundamentally curbed, partly due to China’s lagging school health education system. Through literature mining, this paper refines the research focus of foreign health education and the challenges faced by foreign health education. By combing the research progress of health behavior and academic performance, adolescent media cognitive ability and health education workers’ health cognitive ability, it reflects the future research direction of health education in China.

Keywords: health education, media cognition, China

1 Research trends of health education

1.1 Research Trends of School Health Education in China

In the past ten years, the academic research in the field of school health education in China has gradually heated up. Although the total amount of research results is limited, the upward trend is rapid. The research institutions are mainly domestic comprehensive universities, normal universities, medical colleges, health education research institutions and disease prevention and control institutions at all levels. The topics of concern are basically consistent with the international community, from health education, nutritional health education and mental health to sexual and reproductive health education and public health education. In addition, the research focus of school health education in China, in addition to the analysis of the influencing factors of disease and behavior, the evaluation of the effect of health education and other health contents in line with international standards, also includes the theoretical research of health education, the innovation of teaching methods and the curriculum. The local content of the teaching reform, and the focus of the field of school health education in China is mainly the young people in our school.

1.2 Research status of health education in foreign countries

Based on literature analysis, in the past two decades, the global academic research on the field of school health education has been very active, and the scope of research has gradually

expanded. Research institutions are mainly concentrated in colleges and universities, disease prevention and control institutions and medical institutions (hospitals). From the regional distribution of research units, they are mainly concentrated in developed countries such as Europe and the United States. Among them, the United States accounts for 60.29% of the total global scientific research (papers), followed by Australia (10.33%), Britain (10.25%), Canada (7.34%), Finland (4.6%), Germany (4.11%), while mainland China accounts for only 1.93% of the global total. The research content has expanded from traditional fields such as school health education, nutrition education and mental health to more extensive topics such as public health education and environmental education. The research methods have developed from a single intervention study to a combination of intervention, demonstration and dissemination research. The research focuses mainly on the analysis of the influencing factors of disease and behavior, health knowledge, health beliefs, and risk behaviors. The focus of attention is mainly on young women and their family members, low-income groups and ethnic minority groups (African American teenagers, Asian Americans, Hispanic Americans).

1.3 Urgent challenges of health education abroad

The rapid flow of population, environmental threats and the prevalence of new infectious diseases are challenging our existing school health education system (Figure 1). In the middle and late 20th century, due to the development of medical technology, the progress of public health care and the popularization of health knowledge, the world's infectious diseases have been greatly reduced, people's quality of life has been improved, and the average life expectancy has been extended. However, with the continuous discovery of new viruses and virus mutations, infectious diseases have once again ravaged human beings. Not only new infectious diseases such as HIV / AIDS and infectious atypical pneumonia (H7N9) have emerged, but also controlled infectious diseases such as tuberculosis, diphtheria and measles have also emerged. Children and adolescents are susceptible to infectious diseases. According to the World Health Organization, nearly 158,000 people died of measles worldwide in 2011, most of them children under the age of five [1]. In addition, there are 9 million new TB patients worldwide each year, of which about 1 million are children under the age of 15 [2]. The joint report of the United Nations Children's Fund and the World Health Organization emphasizes that in 2012 alone, 2.3 million people were newly infected with AIDS worldwide, of which 11.3% were children under 15 years old. In the same year, about 1.6 million people died of AIDS worldwide, of which children under the age of 15 accounted for 13.1% [3].

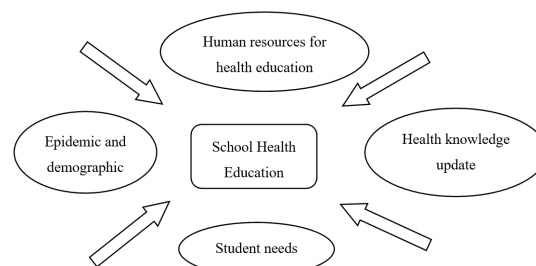


Figure 1 The urgent challenges faced by the school health education system

At the same time, the changes in the health needs of the educated groups have also forced the existing health education system to make changes. Teenagers are the key period of human growth and development. Teenagers at this stage are still unable to accurately understand the serious consequences of risk behaviors and make reasonable health decisions. The physical and mental changes and the lack of health knowledge make the adolescent group easily exposed to the hazards of high-risk behaviors. Drinking, smoking, substance abuse, and risky behaviors are common among adolescents in both developed and developing countries, placing them at high risk for intentional and unintentional injuries, unwanted pregnancies, sexually transmitted infections, and HIV [4–6]. In addition, mental health problems are also common among adolescents. Most of the teenagers in the world are in the school environment. Therefore, the change of teenagers' health needs puts forward higher requirements for school health education.

Health education teachers play a key role in spreading health knowledge and conducting health education. Teacher training is considered to be the most critical factor affecting the quality of health education. A large number of studies have shown that the number and coverage of health education personnel have a direct impact on improving health [7]. Teachers who have received health education training are more motivated to participate in school health education promotion projects, and are more comprehensive in the teaching methods of health education [8]. Although schools have long been recognized internationally as an ideal place

for health education and health promotion, the core task of schools is still focused on teaching, rather than reducing health problems. Therefore, schools in most countries in the world do not give priority to health promotion, and faculty members also ignore their important position in school health education due to lack of role awareness. Therefore, teacher training has become a major challenge for the future development of global health education.

At the same time, in response to challenges from the social environment, adolescents themselves, and health educators, many countries' school health education systems are making changes to address the complex problems brought about by changes in reality.

2 Research progress of foreign school health education

2.1 Health behavior and academic performance

In the past decade, a large number of studies have focused on the relationship between students' health behaviors and their academic performance. According to the results of the study, the main factors leading to the death, disability or social harm of adolescents include : tobacco, alcohol and drug abuse, risk behaviors, violent behaviors, unhealthy eating behaviors and lack of physical exercise [9]. Although different researchers have different definitions of academic performance, the core contents are basically the same, mainly including : average performance point (GPA), academic performance, standard test scores and completed education years. Previous studies have found that students with excellent academic performance are significantly less likely to participate in violence or become victims of violence than students with poor academic performance [8, 10]. There was a significant negative correlation between academic performance and factors such as binge drinking and alcohol abuse, but there was no significant difference in academic performance between students who drank a small amount of alcohol and those who did not [11]. In addition, the negative relationship between adolescents' risky sexual behavior and academic performance has also been confirmed by existing research. There is a significant negative relationship between the age of first sexual behavior and academic performance. The academic performance of students with earlier age of first sexual behavior is significantly lower than that of students with later age of first sexual behavior [12].

Studies have pointed out that there is a positive relationship between academic performance and the frequency of participation in school sports activities [13] and off-campus sports activities have no negative impact on academic standard test scores. The impact of competitive sports on academic performance, the existing research has not yet reached a consistent conclusion.

Through literature review, it can be found that health risk behaviors and academic performance are interrelated and influenced by each other. Therefore, improving health and academic performance should be regarded as a common goal rather than an independent goal that should be responsible for by different agencies. The effect should be jointly evaluated by the youth education management agency and the health management agency, which further requires close cooperation and coordination among policymakers in the health and education sectors.

2.2 Adolescents' media cognitive ability

The so-called media cognitive ability refers to the ability of young people not only to access, analyze, evaluate and create various forms of media and their content, but also to have the subjective desire to pursue a healthy lifestyle based on this ability [15]. In the study of media information and adolescent health behavior, media cognitive education is a new intervention method and is considered to be an effective alternative to "strict censorship of media content" [16]. Developed countries such as Europe and the United States have accumulated considerable research and practice in this field. The purpose is to cultivate young people's ability to think critically about media information, so as to reduce the negative impact of media information and make healthy behavior decisions through self-judgment. Studies have shown that frequent exposure to media information that whitewashes smoking and drinking behavior may induce adolescents to form a positive impression of tobacco alcohol and more away from negative impressions [11, 17]. With the increase of age, teenagers are more and more likely to accept the media image of smoking and drinking [18]. Previous studies have shown that media cognitive education programs can effectively prevent multiple health risk behaviors [12]. In addition, it is more effective to use classrooms as intervention sites, and the longer the intervention period, the better the effect of media cognitive education [19, 20]. The media cognitive education program based on the health belief model can effectively enhance adolescents' critical thinking ability and reduce their willingness to try dangerous behaviors [21].

Considering the influence and popularity of mass media such as television, the Internet, and mobile phones among adolescents, researchers in developed countries have proposed integrating media awareness education into health education goals to cultivate adolescents' health decision-making ability [22].

2.3 Health cognitive ability of educators

Teachers' health cognitive ability is defined as "the ability of teachers to acquire, understand and interpret basic health information and scientific knowledge, and to use these information and services to promote students' health knowledge acquisition and skill development" [23]. Studies have shown that the role awareness of educators in health promotion and the evaluation of health education programs are considered to be important factors in the development and promotion of health education programs. Teacher training has been proved to be a key factor affecting the quality of health education and teaching [27]. Relevant research shows that teachers with experience in health education and training have a more positive evaluation of health promotion projects and are more inclined to adopt new teaching methods [28]. The primary goal of teacher training is to help them clarify their tasks and boundaries in school health education, so as to establish a clear sense of role. Secondly, it is to provide teachers with channels to update health knowledge and improve their cognitive ability, so that they can decompose the goal of health education into specific measures to improve students' health literacy.

For a long time, the basic health problems of individuals have been regarded as the main content of health education. Schools often cultivate students' good behavior habits by teaching basic health knowledge. But now, health education is not only to encourage teenagers to pay attention to nutrition and strengthen exercise. Teenagers need more systematic health knowledge, among which the health cognitive ability of educators is particularly important.

References

- [1] WHO. <https://www.who.int/topics/measles/en>
- [2] WHO. <https://www.who.int/topics/tuberculosis/en>
- [3] WHO. <https://www.who.int/hiv/data/en>
- [4] Samandari G, Speizer IS. Adolescent Sexual Behavior and Reproductive Outcomes In Central America: Trends over the Past Two Decades. *International Perspectives on Sexual and Reproductive Health*. 2010, 36(1): 026-035. <https://doi.org/10.1363/3602610>
- [5] de Looze M, Vermeulen-Smit E, ter Bogt TFM, et al. Trends in alcohol-specific parenting practices and adolescent alcohol use between 2007 and 2011 in the Netherlands. *International Journal of Drug Policy*. 2014, 25(1): 133-141. <https://doi.org/10.1016/j.drugpo.2013.09.007>
- [6] Morgenstern M, Sargent JD, Engels RCME, et al. Smoking in European adolescents: Relation between media influences, family affluence, and migration background. *Addictive Behaviors*. 2013, 38(10): 2589-2595. <https://doi.org/10.1016/j.addbeh.2013.06.008>
- [7] Frenk J, Chen L, Bhutta ZA, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *The Lancet*. 2010, 376(9756): 1923-1958. [https://doi.org/10.1016/s0140-6736\(10\)61854-5](https://doi.org/10.1016/s0140-6736(10)61854-5)
- [8] Devries K, Child J, Allen E, et al. School violence, mental health and educational performance in Ugandan primary school children. *PsycEXTRA Dataset*. Published online 2014. <https://doi.org/10.1037/e500792015-183>
- [9] U.S. Centers for Disease Control and Prevention. Youth risk behavior surveillance—United States. *MMWR Surveill Summ* 2010, 59: 1-42.
- [10] Lepore SJ, Kliewer W. Violence Exposure, Sleep Disturbance, and Poor Academic Performance in Middle School. *Journal of Abnormal Child Psychology*. 2013, 41(8): 1179-1189. <https://doi.org/10.1007/s10802-013-9709-0>
- [11] Ingles CJ, Torregrosa MS, Rodriguez-Marin J, et al. Alcohol and tobacco use and cognitive-motivational variables in school settings: effects on academic performance in Spanish adolescents. *Adicciones*. 2013, 25(1): 63-70.
- [12] Schvaneveldt PL, Miller BC, Berry EH, et al. Academic goals, achievement, and age at first sexual intercourse: longitudinal, bidirectional influences. *Adolescence*. Winter 2001, 36(144): 767-787.
- [13] Carlson SA, Fulton JE, Lee SM, et al. Physical Education and Academic Achievement in Elementary School: Data From the Early Childhood Longitudinal Study. *American Journal of Public Health*. 2008, 98(4): 721-727. <https://doi.org/10.2105/ajph.2007.117176>
- [14] Reed JA, Einstein G, Hahn E, et al. Examining the Impact of Integrating Physical Activity on Fluid Intelligence and Academic Performance in an Elementary School Setting: A Preliminary Investigation. *Journal of Physical Activity and Health*. 2010, 7(3): 343-351. <https://doi.org/10.1123/jpah.7.3.343>
- [15] Zuccolo L, Lewis SJ, Davey Smith G, et al. Prenatal alcohol exposure and offspring cognition and school performance. A 'Mendelian randomization' natural experiment. *International Journal of Epidemiology*. 2013, 42(5): 1358-1370. <https://doi.org/10.1093/ije/dyt172>

- [16] Bergsma LJ, Carney ME. Effectiveness of health-promoting media literacy education: a systematic review. *Health Education Research*. 2008, 23(3): 522-542.
<https://doi.org/10.1093/her/cym084>
- [17] Duval-White CJ, Jirikowic T, Rios D, et al. Functional Handwriting Performance in School-Age Children With Fetal Alcohol Spectrum Disorders. *The American Journal of Occupational Therapy*. 2013, 67(5): 534-542.
<https://doi.org/10.5014/ajot.2013.008243>
- [18] Guyatt H, Brooker S, Lwambo NJS, et al. The performance of school-based questionnaires of reported blood in urine in diagnosing *Schistosoma haematobium* infection: patterns by age and sex. *Tropical Medicine and International Health*. 1999, 4(11): 751-757.
<https://doi.org/10.1046/j.1365-3156.1999.00483.x>
- [19] Rosenkoetter LI, Rosenkoetter SE, Ozretich RA, et al. Mitigating the harmful effects of violent television. *Journal of Applied Developmental Psychology*. 2004, 25(1): 25-47.
<https://doi.org/10.1016/j.appdev.2003.11.005>
- [20] Gonzales R, Glik D, Davoudi M, et al. Media Literacy and Public Health. *American Behavioral Scientist*. 2004, 48(2): 189-201.
<https://doi.org/10.1177/0002764204267263>
- [21] Kupersmidt JB, Scull TM, Austin EW. Media Literacy Education for Elementary School Substance Use Prevention: Study of Media Detective. *Pediatrics*. 2010, 126(3): 525-531.
<https://doi.org/10.1542/peds.2010-0068>
- [22] GULMANN C, ØSTERBY R, BANGSTAD HJ. Long-term studies of the juxtaglomerular apparatus in young microalbuminuric type 1 diabetic patients. *APMIS*. 2001, 109(11): 767-773.
<https://doi.org/10.1034/j.1600-0463.2001.d01-144.x>
- [23] Peterson FL, Cooper RJ, Laird JAt. Enhancing Teacher Health Literacy in School Health Promotion A Vision for the New Millennium. *Journal of School Health*. 2001, 71(4): 138-144.
<https://doi.org/10.1111/j.1746-1561.2001.tb01311.x>
- [24] Dawson LJ, Chunis ML, Smith DM, et al. The Role of Academic Discipline and Gender in High School Teachers' AIDS-Related Knowledge and Attitudes. *Journal of School Health*. 2001, 71(1): 3-8.
<https://doi.org/10.1111/j.1746-1561.2001.tb06480.x>
- [25] Perry-Casler S, Price JH, Telljohann SK, et al. National Assessment of Early Elementary Teachers' Perceived Self-Efficacy for Teaching Tobacco Prevention Based on the CDC Guidelines. *Journal of School Health*. 1997, 67(8): 348-354.
<https://doi.org/10.1111/j.1746-1561.1997.tb03471.x>
- [26] Han SS, Weiss B. Sustainability of Teacher Implementation of School-Based Mental Health Programs. *Journal of Abnormal Child Psychology*. 2005, 33(6): 665-679.
<https://doi.org/10.1007/s10802-005-7646-2>
- [27] King AA, Tang S, Ferguson KL, et al. An Education Program to Increase Teacher Knowledge About Sickle Cell Disease. *Journal of School Health*. 2005, 75(1): 11-14.
<https://doi.org/10.1111/j.1746-1561.2005.tb00003.x>
- [28] Haignere CS, Culhane JF, Balsley CM, et al. Teachers' Receptiveness and Comfort Teaching Sexuality Education and Using Non-Traditional Teaching Strategies. *Journal of School Health*. 1996, 66(4): 140-144.
<https://doi.org/10.1111/j.1746-1561.1996.tb08234.x>