



Special Issue article: School Health Promotion in Japan and its Contribution to Asia and Africa

Status of school health programs in Asia: National policy and implementation

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Abstract **Background:** The WHO's Health Promoting Schools (HPS) framework is based on an understanding of the reciprocal relationship between health and education, and the need to take a holistic approach to health promotion in schools. We aim to clarify the degree to which the HPS framework is reflected in the national policies of eight target countries and the issues surrounding its successful implementation.

Methods: Data were collected through two expert workshops with participants from eight Asian countries: Cambodia, China, Japan, Korea, Lao PDR, Nepal, the Philippines, and Thailand. In the first workshop, data collected on national policy were mapped against the HPS framework. From this, key issues were identified, and follow-up data collection was conducted in each country for a second workshop.

Results: We identified a policy shift toward the HPS framework in six out of the eight countries. Neither Japan nor Korea had changed their national policy frameworks to reflect an HPS approach; however, in the latter, model programs had been introduced at a local level. We identified various barriers to successful implementation, especially in relation to mental health and wellbeing.

Conclusion: Given the recent shift toward the HPS approach in six out of the eight countries in this study, there is a need to conduct research to assess the impact of this framework on the health and wellbeing of students and school staff. At the same time, we call for more dialog in the context of Japan to explore the possible benefits of introducing the HPS framework into schools.

Key words Asia, health promotion, HPS framework, school health.

Given that most children and a majority of adolescents spend a significant amount of time in schools, they offer an ideal setting to provide health education and deliver health-promotion programs.¹⁻⁶ Evidence of the reciprocal relationship between health and education has illustrated that health-

promotion activities should be a focus not only of the health sector but also of the education field.

The Health Promoting Schools (HPS) framework was launched by the WHO, UNESCO, and UNICEF in 1992 as a strategic vehicle to promote health in school settings.⁶ This vision has roots in the Alma-Ata declaration of 1978 and the Ottawa Charter of 1986.¹ The Ottawa Charter for Health Promotion created the basic framework for the whole-school approach that is a key component of the HPS framework, emphasizing the social, cultural, and economic factors that

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Received 2 September 2020; revised 11 January 2022; accepted 20 January 2022.

impact health and wellbeing. The HPS framework aims to build capacity and capabilities by enabling key actors to create and maintain a healthy environment for school children, teachers, and people in the community.^{1,6} The HPS concept has been widely embraced around the world but there have been issues with the successful scaling up of its implementation.^{6,7}

The HPS framework is characterized by six key factors: (i) school policies to promote health and well-being; (ii) a healthy physical environment for learning; (iii) a school social environment that fosters positive relationships; (iv) community links; (v) action competencies for healthy living in the formal and informal curricula, and (vi) access to healthcare and health-promotion services.²

In 1995, the WHO launched the Global School Health Initiative to formulate policy to help support low- and middle-income countries to adopt the HPS framework.^{1,2} Following the recommendations that emerged from this initiative, a national school health policy was formulated in the low- and middle-income countries that adopted the framework.^{8–12}

Recognizing the importance of the HPS approach, this paper reports on the results of an expert consultation that aimed to map school health programs in eight Asian countries against the vision and principles of the HPS framework. These eight countries are the Kingdom of Cambodia (Cambodia), the People's Republic of China (China), Japan, the Republic of Korea (Korea), Lao People's Democratic Republic (Lao PDR), the Federal Democratic Republic of Nepal (Nepal), the Republic of the Philippines (the Philippines), and the Kingdom of Thailand (Thailand). The paper also aims to clarify the degree to which the HPS framework is reflected in the national policies of our eight target countries and the issues surrounding its successful implementation.

Methods

Consultations with experts from eight Asian countries

In 2019, the Osaka University UNESCO Chair in Global Health and Education (OUUC-GHE) organized two workshops in collaboration with the Japan Consortium of Global School Health Research (JC-GSHR), inviting health and education experts from eight Asian countries to attend. The workshops served as expert consultations to gather data on the current situation of school health programs in terms of national-level school health-related policies and to map these policies against the HPS framework. The workshops also aimed to identify the issues around the successful implementation of national policy mandates relating to education and health in schools. Both workshops were facilitated by the Chair Holder of the OUUC-GHE and the Chairman of the JC-GSHR. English was used throughout as it was a second but common language for most participants, with some participants interpreting for those not fully able to follow.

The research ethics protocol was approved by the Research Ethics Committee of the Graduate School of Human Sciences, Osaka University (OUKS1901).

1. First workshop: May 10 and 11, 2019

A total of 40 participants representing 20 organizations from eight countries attended the first workshop, including representatives from the Global Health Center at Yonsei University (Korea); the Faculty of Education at the National University of Laos (Laos); the Department of Health Promotion and Education at the University of Philippines, Manila (Philippines); the Faculty of Tropical Medicine at Mahidol University (Thai); the Department of School Health, Ministry of Education, Youth and Sport (Cambodia), UNESCO Beijing (China), and six Japanese universities, including Osaka University.

Prior to the workshop, country representatives were asked to gather data from policy documentation and expert consultations to complete a questionnaire. The questionnaire concerned: (i) national-level policy and/or guidelines related to HPS; (ii) positive aspects of the current policy, and (iii) challenges posed by the current policy. During the workshops, the country data were presented and mapped against the HPS framework. Based on this, key issues were identified and follow-up data collection was conducted in each country for the second workshop.

2. Second workshop: September 27 and 28, 2019

The second workshop was limited to invited experts representing the core research team. A total of 28 participants representing 17 organizations from seven countries attended. There was no representation from Korea; however, two new participants were in attendance, one from the Institute of Child and Adolescent Health at Peking University (China) and another from the Central Department of Education at Tribhuvan University (Nepal).

This workshop aimed to share the results of the investigation into the additional topics identified in the first workshop on the implementation of HPS. It also sought to expand the data on China and to include Nepal in the data set.

The data generated by the experts before, during, and after the workshops forms the basis of this paper. Where there were gaps, we conducted manual searches of the relevant literature to supplement the collected data. Key members of the workshops joined us as co-authors of the paper.

Results

In this section, we present our findings from the mapping of the national policy in our eight target countries against the HSP framework. We also clarify the challenges identified in successful and scaled-up implementation in each country. To contextualize the data, we begin by giving a brief overview of each country based on its pertinent factors or characteristics.

Country profiles

Basic profiles of the eight selected countries are shown in Table 1. Based on the World Bank's criteria, the participating

Table 1 County profiles

	Cambodia	China	Japan	Korea	Lao PDR	Nepal	Philippines	Thailand
Income level [†]	Lower middle	Upper middle	High	High	Lower middle	Lower middle	Lower middle	Upper middle
Human development index rank, 2018 [‡]	146	85	19	22	140	147	106	77
Government expenditure per student, primary, percentage of GDP per capita [§]	6.6 (2014)	5.9 (1998)	21.8 (2016)	27.8 (2016)	9.1 (2014)	12.4 (2015)	9.1 (2008)	23.3 (2013)
Net enrolment in primary education, % [¶]	90.25	99.9 ^{††}	98.8 ^{‡‡}	97.3	91.5	80.4	93.8	98.1
Cumulative drop-out rate up to the last grade of primary education, % ^{§§}	16.50 (2017)	NA	0.02 (2016)	0.52 (2016)	17.83 (2017)	26.45 (2016)	7.14 (2016)	1.50 (2017)
Inequality in education by income level, %, 2018 ^{‡‡}	27.3	11.7	1.6	18.5	31.3	40.9	10.1	18.3
Gender gap in literacy rate (f/m) ^{¶¶}	0.87	0.97	1.00	1.00	0.88	0.76	1.00	0.96
Total health expenditure per capita in US\$, 2017 ^{¶¶¶}	82.08	440.83	4,168.99	2,283.07	62.12	47.92	132.90	247.04
Life expectancy at birth, 2018 [‡]	69.6	76.7	84.5	82.8	67.6	70.5	71.1	76.9
Obesity, aged 18+, Age-standardized adjusted estimates, 2014 ^{†††}	3.2	6.9	3.3	5.8	3.5	2.7	4.1	8.5
Crude suicidal rates per 100 000, 10–14 years/10–19 years, 2016 ^{‡‡‡}	0.1/2.4	0.9/1.9	1.7/4.8	1.3/4.4	0.4/6.3	0.8/6.0	0.8/2.5	0.4/5.6

[†]The World Bank, <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>.

[‡]Human Development Report 2019, <http://hdr.undp.org/sites/default/files/hdr2019.pdf>.

[§]The World Bank, <https://data.worldbank.org/indicator/SE.XPD.PRIM.PC.ZS>.

[¶]World Economic Forum, Global Gender Gap Report 2020, http://www3.weforum.org/docs/WEF_GGGR_2020.pdf.

^{††}United Nations International Children's Emergency Fund. An Atlas of Social Indicators of Children in China 2018, <https://www.unicef.cn/en/atlas-2018-en>.

^{‡‡}Trading Economics, <https://tradingeconomics.com/japan/total-enrollment-primary-percent-net-wb-data.html>.

^{§§}UNESCO Institute for Statistics (UIS), <http://data.uis.unesco.org/Index.aspx?queryid=156>.

^{¶¶}WHO Global Health Expenditure 2017, <https://data.worldbank.org/indicator/SH.XPD.CHEX.PC.CD>.

^{†††}WHO Global Status Report on non-communicable disease 2014, https://apps.who.int/iris/bitstream/handle/10665/148114/9789241564854_eng.pdf?sequence=1.

^{‡‡‡}WHO The Global Health Observatory 2016, [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/suicide-mortality-rate-\(per-100-000-population\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/suicide-mortality-rate-(per-100-000-population)).

countries included two high-income (HI) countries (Japan and Korea), two upper middle income (UMI) countries (China and Thailand), and four lower middle income (LMI) countries (Cambodia, Lao PDR, Nepal, and the Philippines). Among the LMI countries, the Philippines was much closer to UMI status than the other three, with a per capita income of US\$3,830 in 2018. Lao PDR reached LMI status in 2011, Cambodia in 2015, and, more recently, Nepal in 2019.

Government expenditures on both education and health were generally proportional to each country's income level. In terms of both net enrolment rates in primary education and drop-out rates up to the last grade of primary education, Nepal performed least well, followed by Lao PDR, Cambodia, and the Philippines. Significant income inequalities persist across all countries except Japan. Educational inequalities were highest in Nepal, followed by Lao PDR, Cambodia, Korea, and Thailand. In terms of the ratio of pupils per teacher in primary school, Cambodia had the highest ratio, followed by the Philippines. Nepal recorded the highest gender gap in general literacy, followed by Cambodia and Lao PDR. As one of the basic health indicators, life expectancy, was closely linked to the income level of each country. Further, as one of the indicators of non-communicable disease, Thailand had the highest rate of obesity, followed by China; however, in general, obesity levels were low across the eight countries compared to many Western countries.¹³ Taking suicide as one of the

indicators of mental health and wellbeing, it was clear that the two high income countries, Korea and Japan, had the highest rates of suicide rates for school-age children.

Policy structure at the national I Level

The countries' policy structures are shown in Table 2. The WHO defines health policy as follows: "*decisions, plans, and actions that are undertaken to achieve specific health care goals within a society... it defines a vision for the future which in turn helps to establish targets and points of reference for the short and medium term. It outlines priorities and the expected roles of different groups; and it builds consensus and informs people.*"¹⁴ Health policy may include specific legislation, standards, guidelines, or programs designed to enhance and monitor implementation. Here, both national policy, and associated national-level legislation, standards, programs, and guidelines are taken collectively to represent national policy.

Both Japan and Korea have had national school health policies in place for many years, and these policies did not directly reference the HPS approach. The other countries had introduced national policies more recently, mostly since the start of this century, and their policies reflected the HPS approach. Although the Korean policy did not specifically entail the HPS approach, the education sector launched the HPS model project based on the HPS framework in 2005.¹⁵

The implementation of this model project has been expanding nationwide at the local level.

In addition, Cambodia's newly endorsed national policy did not directly mention HPS but contained all six key components of the HPS framework to some degree. The Cambodian policy emphasized the importance of school health to ensure quality education and to increase completion rates in order to produce human resources for the country's development. As such, it focused primarily on general physical health, for example, the provision of primary healthcare services, physical examinations, nutrition, and WASH (safe water, sanitation, and hygiene).¹⁶

For each country, the assigned ministries were either those of education, health, or both. Other ministries were also expected to be involved in implementation to some degree. Although education ministries clearly had a mandate for health promotion in school, an inter-sectoral strategy was recognized by our experts as effective for promoting a whole-school approach.

There was considerable variation in who was assigned as the key personnel responsible for school health. In the LMI countries, with the exception of the Philippines, there were few, if any, dedicated staff. In the other countries, the school nurse was the dedicated staff member, although it was not unusual for one nurse to be responsible for several schools. In Thailand, each school was required to assign at least one school health teacher and multiple school health (student) leaders, who were trained for their roles. In Japan, the *yogo* teacher was the key person responsible for school health. These teachers are school-based health professionals, who offer health services in the form of first aid and counseling, while also taking part in health education and health promotion activities. Japan's School Education Law requires that *yogo* teachers are assigned to all elementary and junior high schools.

Positive aspects of current policy

The positive aspects of the current policies that were identified by our experts are listed in Table 3. Experts from the LMI and UMI countries reported having strong leadership and well written policy and/or standards as positive aspects, while good infrastructure and well equipped school facilities were regarded as positive aspects by the representatives of the two HI countries. Both Japanese and Korean experts reported that student activities, such as cleaning school facilities (classrooms and public spaces, including the toilets) and serving school lunches by themselves, had positive effects on school health promotion. However, these activities were not usually considered to be a form of health promotion per se, but rather daily duties that would promote students' general humanity and team-work spirit. Active community involvement was considered a positive aspect in Thailand, which was the only country that reported that education practices aimed at promoting inclusion were taking place at every school.

Challenges of current policy

The challenges identified through the expert consultation are shown in Table 4. The experts from the LMI countries, especially those from Cambodia and Nepal, reported that the lack of basic infrastructure, such as safe drinking water and toilets, was a significant challenge. In these countries, providing basic facilities was the main priority and, consequently, school health promotion implementation was regarded as a lower priority by policy-makers. In the LMI countries, a lack of budget and resources and disparities between urban and rural areas were also reported.

Regardless of income level, every country except Thailand reported that parent and community links were relatively weak. The experts mentioned that even where such links had been forged at a local level, such activities were not taking place nationwide. Moreover, whether they were properly realized or not was highly dependent on each school principal's skills and motivation.

Challenges unique to each country were also reported. In the Philippines, for example, prior to the enactment of the Universal Health Care Act in 2019, school health policy was implemented by the education and health sectors. This has created issues that have yet to be fully resolved. The Universal Health Care Act brought in "whole-of-system," "whole-of-government," and "whole-of-society" approach but according to the expert from the Philippines there remain challenges in terms of coordination between these two departments because the education sector's governance structure is nationally centralized, whereas the delivery of basic services by the health sector is decentralized or devolved to local governments.

The Korean expert pointed out that, in Korea, the primary focus at most schools for teachers and students was academic achievement, and consequently, school health activities were regarded as a low priority. Health-promotion activities were downplayed as they were seen to take away precious study time from school children preparing for competitive examinations. This mindset was seen to make it difficult to implement a comprehensive approach to health promotion in many schools.

The challenges experienced in Japan were also rather unique. As shown in Table 2, many kinds of school health personnel were employed in Japanese schools, including *yogo* teachers; however, according to the Japanese experts, each person's role was overly specialized and segmented and, as a result, multiprofessional collaboration was often limited. It was noted that such a vertically segmented organizational structure made it difficult to realize a whole-school approach and delayed interventions that aimed to create a positive social environment in schools. The experts from Japan mentioned that the main aim of school health there had been to raise children's overall level of physical health, and the system could not respond effectively by differentiating particular students' needs according to their backgrounds or other characteristics. It was noted that there has only belatedly been a focus on psychosocial health for students who are "at risk,"

Table 2 School health policy

	Cambodia	China	Japan	Korea	Lao PDR	Nepal	Philippines	Thailand
Most recently endorsed school health policy at the national level	National policy on school health	Standard of health promoting school	School health and safety act	School health law	National school health policy	National school health and nutrition program	Universal health care act (Chapter VIII)	National school health policy
Year of endorsement	2019	2016	1958	1967	2005	2006	2019	1998
Ministry assigned to executing policy	Education sector	Health sector	Education sector	Education sector	Education sector	Education sector	Education sector (central)	Education sector
Collaborative ministries	At least 20 ministries	N/A	Health sector	N/A	Agriculture and forestry sector	Agriculture sector	Health sector (localized)	N/A
Component	Based on HPS strategy	Based on HPS strategy	Focused on health management, health education, and safety	Focused on health management	Based on HPS strategy	Based on HPS strategy	Based on HPS strategy	Based on HPS strategy
Implementation approach to school health	Comprehensive but with more focus on physical health	Comprehensive	Comprehensive	Segmented with main focus on physical health and prevention	Comprehensive by HPS project but with more focus on physical health	Comprehensive	Comprehensive with focus on first aid and nutrition	Comprehensive
Comprehensive Key personnel in school health	None for now	School doctors, nurses, counselors, and life teachers	(Full time) <i>yogo</i> teacher, PE teacher, school health coordinator, nutrition teacher, registered dietitian (as needed) School health committee, social worker, counselor, nurse, doctor, dentist, pharmacist, health officer	School health teacher, MD, social worker	None for now	HPE teacher, school nurse (recently introduced)	(School Division Office) MD, DMD, nurses, guidance counselor (school-level) MAPEH (subject) teachers and guidance teachers	Health teacher and student health leaders

Table 3 Positive aspects (a): (Cambodia, China Japan and Korea); (b): (Lao PDR, Nepal Philippines and Thailand)

	Cambodia	China	Japan	Korea
National Policy, governance	<ul style="list-style-type: none"> # Newly established with strong central government leadership # Collaboration among different sectors required 	<ul style="list-style-type: none"> # Strong central and local government leadership # High level of economic development 	<ul style="list-style-type: none"> # Structure is very stable 	<ul style="list-style-type: none"> # Commitment of each local government # Collaboration with health sector
Physical environment	<ul style="list-style-type: none"> # Minimum requirement guideline on WASH supported by UNICEF # GIZ, Plan International, and some amount of government budget for toilet construction # Deworming tablets available to every student and teacher # Health education syllabus in place # Health education curriculum focusing on social, physical, and mental health in development 	<ul style="list-style-type: none"> # Moral education department and class teachers are responsible for school safety # District health sector monitors drinking water safety every 2 years # Food and Drug Administration is responsible for the supervision and management of food safety in school canteens 	<ul style="list-style-type: none"> # Good infrastructure, such as clean toilets, hand washing, gyms, swimming pools, and playgrounds # Students' duty to clean the school facilities 	<ul style="list-style-type: none"> # Sports zones # Smoke-free schools # School gyms
Social environment	<ul style="list-style-type: none"> # Health education syllabus in place # Health education curriculum focusing on social, physical and mental health in development 	<ul style="list-style-type: none"> # Promulgation of guiding opinions on preventing bullying and violence among students # Various student associations # Counseling room (mental health) # HPS website with various resources for teachers, as well as a counseling system for students 	<ul style="list-style-type: none"> # Moral education # Many activities involving students to keep the school clean and serve school meals 	<ul style="list-style-type: none"> # Student activities to keep the school clean and serve school meals # Elderly clubs to ensure children's safety on their commute # Green zones # Sport clubs
Community links	<ul style="list-style-type: none"> # Regular PTA meetings # Some schools have good links with pagodas to raise funds # International support 	<ul style="list-style-type: none"> # Parental involvement through PTAs, parents' letters and parent schools # Links with community resources such as pharmacists 	<ul style="list-style-type: none"> # PTAs # Committee in the community # Elderly clubs to ensure children's safety on their commute # Children's cafeteria offering free meals to disadvantaged children # Youth leader volunteers 	<ul style="list-style-type: none"> # Collaboration with Korea Health Promotion Foundation # PTAs and school committees # Healthy city project
Action competencies	<ul style="list-style-type: none"> # Tooth brushing and hand washing practice through daily WASH in School program # Yearly awards organized by education sector 	<ul style="list-style-type: none"> # Health Promotion initiatives in schools: Healthy China Action (2019–2030) # Teacher and Student Health, Chinese Health (2018) 	<ul style="list-style-type: none"> # Student activities to keep the school clean and serve school meals # Food education # Self-monitoring health # Shoe-changing # Hand-washing and teeth brushing 	<ul style="list-style-type: none"> # Student activities to keep the school clean and serve school meals # Self-monitoring health
Access to healthcare and health promotion services	<ul style="list-style-type: none"> # Quick response team in case health problems occur in school 	<ul style="list-style-type: none"> # Full-time school doctors or nurses available daily # Psychological counseling rooms # School healthcare centers managed by local education authority 	<ul style="list-style-type: none"> # Regular health check-ups # Vaccinations 	<ul style="list-style-type: none"> # Affiliation of health teacher at each school

Table 3 Continued

	Lao PDR	Nepal	Philippines	Thailand
National policy, governance	<ul style="list-style-type: none"> # Strong legislative reinforcement by leadership # School health education is one of the priorities of the National Development Plan # Collaboration between education and health sectors 	<ul style="list-style-type: none"> # Policy is guided by the FRESH approach and is comprehensive # Education and Health sectors developed a joint action plan 	<ul style="list-style-type: none"> # National law that mandates a province-wide implementation of the UHC Act 	<ul style="list-style-type: none"> # Good collaboration between education and health sectors # Awards system for HPS implementation
Physical environment	<ul style="list-style-type: none"> # National school construction guidelines that require more effective school facilities including toilets, and safety location # Safety foods and drinks program piloted at schools in the capital, Vientiane 	<ul style="list-style-type: none"> # Integration of provision of mid-day meal in the government system # Emphasis on school toilet construction # Distribution of free menstrual pads to adolescent girls 	<ul style="list-style-type: none"> # Toilets, canteens, school gardens and exercise facilities # Social Work sector and local government units provide support for the construction of the schools # Various school-based health and nutrition programs 	<ul style="list-style-type: none"> # Common sense of school to be clean # "Happy Toilet" policy lead by education and health sectors # Safety in schools # Environment protection policy lead by environment sector # Free school lunch program with fresh milk provided for every student # Breakfast support in some schools
Social environment	<ul style="list-style-type: none"> # Emphasis on children as co-producers of health # Cleaning Day activities # School champion contests # Child Health Club activity 	<ul style="list-style-type: none"> # Child club activities # Provision of moral education # Yoga 	<ul style="list-style-type: none"> # Guidance counselors and guidance teachers in some schools 	<ul style="list-style-type: none"> # Happy community # Inclusive education at every school # School Garden for lunch # Free education for every child from kindergarten to secondary level
Community links	<ul style="list-style-type: none"> # Government requires responsibility to be split between government (30%) and community (70%) # Community contribution to the building of hand-washing sinks, pipes, and tanks # Parents associations organized mainly by nurses and doctors (parents) providing basic medicine, teacher training, and money to support school health activities in model schools # International support (JICA, GIZ, PLAN, Mahidol University etc.) 	<ul style="list-style-type: none"> # Equation policy and strategy encourages parental participation # International support 	<ul style="list-style-type: none"> # PTAs # Links with barangay (village) local government # Partnerships with the private sector: Jollibee Foundation for nutrition programs; Philippine Mental Health Association (PMHA) for mental and psychosocial programs and services; GIZ for Fit for School project; WINS for menstrual health with Save the Children; Colgate for oral health # International support 	<ul style="list-style-type: none"> # 5–10 health volunteers comprising parents and community members # Support from local government and community e.g. temples and local economic leaders # Community wealth networks # Provincial seminars and symposiums every 2 years inviting village leaders' participation # Diverse stakeholders; village authorities, community clubs, PTAs, school management committees, local municipalities, temples, sub-district administrative organizations, district health offices, community hospitals etc. # International support

Table 3 *Continued*

	Lao PDR	Nepal	Philippines	Thailand
Action competencies	# Echo-health education # Cleaning Day activities # School hygiene contest nationwide # Child Health Club activities	# Activity-based integrated curricula are being developed	# All health topics are integrated into science and MAPEH (music, arts, physical education, and health) subjects	# Health project work as student's activity supervised by teacher consultant # Activities with brain-based learning (group discussion) and participatory learning # Health volunteer spirit # Health teachers and health student leaders in every school # School nurses in some schools # Health room at every school
Access to healthcare and health promotion services	# School clinic in some schools in the capital city # Health check-ups twice a year	# Budget allocation to provide school nurses	# Clinic teachers or designated school health teachers # Visiting school nurses	

while a coordinated response to child poverty was lacking despite a high level of recognition of this issue.

Discussion

National policy in relation to the HPS framework

Among the eight Asian countries, the impact of the HPS framework on the respective school health policies varied widely. Cambodia, China, Lao PDR, the Philippines, and Thailand had incorporated many aspects of the HPS framework, whereas its influence on policy and practice in Japan was minimal. Korea sat in the middle: The HPS framework was not explicitly referenced in national policy but was being implemented through local initiatives. As lower income countries receive financial aid and technical support from international organizations, including UN agencies and various international non-profit organizations and non-governmental organizations (NPOs/NGOs), there may be direct or indirect pressures for their national policy to reflect international standards based on the HPS framework. China is now the second-largest contributor to the WHO but also relied on international support to establish its school health standards to initiate the pilot HPS projects in 1995.^{1,9,17} Cambodia also depends on overseas aid to pursue educational development and a range of funded projects targeted at resolving key educational issues.^{18,19} As Cambodia's newly endorsed national policy focuses on general physical health,^{8,20,21} we can observe some similarities with Japan. However, while its national policy does not explicitly reference HPS, many aspects of the approach are present.

Neither Korea nor Japan had explicitly adopted the HPS framework at the national level, whereas other HI countries in Asia, such as Singapore, Hong Kong, and Taiwan had done so.^{22–24} In Japan, the importance of health promotion and the HPS framework were discussed and referenced in a report by the Central Education Council in response to the consultation from the Ministry of Education, Culture, Sports, Sciences, and Technology.²⁵ The newly developed School Health and Safety Act of 2009 also articulates the importance of taking a whole-school approach and of collaboration with communities, as well as the necessity to respond to personal health needs.

In contrast, our results suggest that the concept of HPS does not yet have much traction in Japanese schools. While Japan has a long history of prioritizing school health,²⁶ it has not explicitly created an HPS framework within its national policy, despite being a UN member state. Japan was found to have a segmented school health system that focused on providing knowledge to prevent disease and to promote healthy lifestyles through the health curriculum. On the other hand, student activities, such as keeping the school clean, serving school lunches, and non-competitive physical activities at the primary level, had characteristics of the whole-school approach. However, these activities were not framed as health promotion but rather as character building within the context of the group.

Table 4 Challenges in current policy (a): (Cambodia, China, Japan and Korea); (b): (Lao PDR, Nepal, Philippines and Thailand)

	Cambodia	China	Japan	Korea
National policy, governance	<ul style="list-style-type: none"> # Complaints from school principals and teachers about additional workload # Lack of follow up, scientific monitoring, and evaluation # Limited multisectoral teamwork 	<ul style="list-style-type: none"> # Insufficient cooperation between education and health sectors # Inadequate implementation by local departments 	<ul style="list-style-type: none"> # Sectionalism # Hierarchical # Male dominated # Power issues between board of education and city mayors or prefectural governors 	<ul style="list-style-type: none"> # Dual management system and governance # Limited budget
Physical environment	<ul style="list-style-type: none"> # Limited budget and resources # Limited toilets and clean water in rural areas 	<ul style="list-style-type: none"> # Disparities between urban and rural areas # Disparities between provinces 	<ul style="list-style-type: none"> # Too many students in each class 	<ul style="list-style-type: none"> # Limited budget
Social environment	<ul style="list-style-type: none"> # Limited budget and resources especially in rural areas 	<ul style="list-style-type: none"> # Disparities between urban and rural areas # Disparities between provinces 	<ul style="list-style-type: none"> # Top-down biomedical model and lack of attention to psychosocial health # More focus on prevention rather than promotion # Limited bottom-up approach and children's lack of ownership 	<ul style="list-style-type: none"> # Over-emphasis by schools on academic achievement, leaving little time for health promotion
Community links	<ul style="list-style-type: none"> # Very limited parental involvement due to general poverty # Education of parents is very limited # Rich families send their children to private schools 	<ul style="list-style-type: none"> # Some schools limit communication with parents # Health literacy level of parents/family members needs to be improved 	<ul style="list-style-type: none"> # Depend on principals' motivations # Pressure caused by emphasis on conformity and uniformity 	<ul style="list-style-type: none"> # Voluntary level # Unofficial activity (Healthy City project)
Action competencies	<ul style="list-style-type: none"> # Many schools have no clean water to practice tooth brushing and hand washing # No monitoring system 	<ul style="list-style-type: none"> # PE teachers have limited capability to teach health issues # Inadequate teaching hours dedicated for health education 	<ul style="list-style-type: none"> # Emphasis on conformity and uniformity # Lack of attention to sex and anti-violence education 	<ul style="list-style-type: none"> # Over emphasis by schools on academic achievement, leaving little time for health promotion
Access to healthcare and health promotion services	<ul style="list-style-type: none"> # Very limited healthcare rooms in schools # Very limited budget and resources 	<ul style="list-style-type: none"> # Very limited access in remote rural areas # Medical staff in school healthcare centers in rural areas only receive basic training without sufficient educational background 	<ul style="list-style-type: none"> # Marginal status of <i>yogo</i> teachers # Less attention given to psycho-social issues such as bullying, cyber addiction, sexuality, and anti-violence 	<ul style="list-style-type: none"> # Limited number of medical doctors # Limited budget # Limited amount of health teachers in rural areas
	Lao PDR	Nepal	Philippines	Thailand
National policy, governance	<ul style="list-style-type: none"> # Insufficient experience # Limited management skills and school principals' weak ownership # Insufficient dissemination of information in rural areas 	<ul style="list-style-type: none"> # Limited interest of policymakers # Collaborative ministries are not well involved in implementation # Only a minimum package of the HPS model is implemented # Lack of evidence-based advocacy to policy-makers and politicians 	<ul style="list-style-type: none"> # Point of coordination between centralized education sector and decentralized health sector 	<ul style="list-style-type: none"> # Vague role of provincial officers in implementation # Difficulty in ensuring stability depending on key person's leadership

Table 4 *Continued*

	Lao PDR	Nepal	Philippines	Thailand
Physical environment	# Different schools have different priorities # Lack of measurements for health check-ups and school ownership	# Many community schools lack minimum facilities # School health is a low priority in government budget/resource allocation # Issues in continuity as fewer resources are allocated	# Need to improve adequacy and quality (cleanliness) of facilities	# Insufficient budget # Lack of human resources, transportation, and school health curriculum
Social environment	# Limited leadership skills # Some parents might mistake certain activities for punishment: e.g., Cleaning the toilets	# No particular policy	# Limited training of teachers and guidance counselors on health issues, including sexuality and mental health # Nutrition program only targets moderately and severely malnourished students	# Insufficient budget # Lack of human resources, transportation, and school health curriculum
Community links	# Depend on principals' skills # Model schools' activities and lessons learned are not shared nationwide	# Parent and community involvement is very limited, especially in community schools	# Activities vary from school to school # Partnership limited only to selected schools in some cities	# Insufficient budget # Lack of human resources, transportation, and school health curriculum
Action competencies	# Insufficient implementation # Many activities are only limited in model areas # No monitoring system	# No well-defined action competencies # Teaching is still theoretical	# Limited Information Education and Communication (IEC) materials and equipment # Limited provision of sexuality education	# Insufficient budget # Lack of human resources, transportation, and school health curriculum # Diverse health problems among children
Access to healthcare and health promotion services	# Disparities between urban and rural areas # Limited budget and resources in general	# No/low priority in government budget/resource allocation	# Small number of school nurses # Nurses function limited to screening and health services delivery # Limited training to identify and undertake proper referrals for mental health problems	# Insufficient budget # Lack of human resources, transportation, and school health curriculum # Diverse health problems among children

Physical, mental, and social well-being in school health programs

While the WHO defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity,"²⁷ school health implementation still focused on physical health,^{18,28–32} and insufficient attention was given to mental and social well-being, regardless of the country's income level. In Nepal, Cambodia, and Lao PDR, developing water, sanitation and hygiene (WASH) facilities and providing basic healthcare services in schools were prioritized. There appeared to be a hierarchy of practice, where infrastructure to promote physical health was prioritized ahead of issues related to overall wellbeing and the social environment.

Internationally, the importance of school children's mental and social well-being is being emphasized; for example, suicide among children and adolescents has become a major global health and safety problem.^{33–35} As shown in Table 1, the rate of suicide in Japan was notably high for 10–14 year olds

compared with the rates in the other countries, although Lao PDR, Nepal, and Thailand had higher suicide rates in the 10–19-year-old age group. Child suicide may not relate directly to the child's school life,^{36–38} however, school health can help strengthen children and young people's resilience, action competencies, and life skills.

Other often neglected issues included comprehensive sexuality education, moral and human rights education, and anti-violence education. However, in Thailand, inclusive education programs were implemented in every school. In the Philippines, all health topics were taught from various perspectives, not only in science, physical education, and health education but also in music and arts instruction. We can all learn from these good practices.

Beyond the HPS framework

Many countries have adopted the HPS framework in their school health policy and implementation. Challenges for many lower income countries exist in translating policy into an

implementation plan⁸ and in scaling this policy up to nationwide implementation.³⁹ Now, we must reacknowledge that HPS is just a framework and does not contain concrete contents.

For example, in China, the strong leadership of the Communist Party and the high level of economic development in big cities may help explain the country's successful performance in terms of HPS; however, the huge gap between urban and rural areas presents a significant challenge. China is a multi-ethnic nation with a vast land area, and cultural and religious norms, the natural environment, the economic situations, and dominant health problems vary widely from region to region.¹ Significant gaps in both the quality and quantity of healthcare providers also exist between urban and rural areas. Similarly, gaps between urban and rural areas were also reported in Cambodia, Korea, and Lao PDR.

Thailand's national school health policy is said to be well disseminated and implemented across the country.⁴⁰ Our study found that school health-related activities in Thailand also appear to be well organized and cost effective, with the successful involvement of key stakeholders including teachers, students, and the community.⁴¹ However, diverse health problems among children in Thailand represent one of the challenges to the implementation of health activities. It was reported that young people's lifestyles, including their sexual behaviors, have been changing, although sufficient sexual education has not been provided to address this situation due to cultural barriers.^{40,42} Among Thai children, there is also a double burden of undernutrition and obesity.⁴² As shown in Table 2, the Thai obesity rate was the highest of the eight countries, although there are still children suffering from undernutrition.

This study's findings should be considered in light of some possible limitations. The data were gathered from a small group of experts and therefore offer only a narrow range of viewpoints. In further research, we would like to clarify and map out the status of national school health policy further, paying particular attention to capacity building among school staff.

Conclusion

Given the recent shift to the HPS approach in six out of the eight countries in this study, there is a need to conduct research to assess the impact of this framework on the health and wellbeing of students and school staff. In particular, further research should pay attention to the issues of mental health and wellbeing and the involvement of students, parents, and community members in framing the priorities of the HPS framework. At the same time, we call for more dialogue in the context of Japan to explore the possible benefits of introducing the HPS framework into schools. From our results, we can see the benefits of continuing to work with Asian expert partners to learn more about the factors that impact the implementation process from policy to practice.

Acknowledgments

The authors would like to thank the President of Osaka University for providing a grant to invite Asian experts to the workshops. The authors would also like to give thanks to Ms. Hong Yan Li from UNESCO Beijing and Prof. Didier Jourdan from UNESCO Chair GHE in France for their cooperation.

Disclosure

The authors declare no conflict of interest.

Author contributions

R.O., H.Y., and B.Y. designed the study. R.O. and B.Y. drafted the manuscript. J.K., S.T., A.N., M.K., E.G., C.E., and B.D. gave technical support and conceptual advice. R.O., B.Y., E.S., K.M., E.N., E.G., P.T., K.K., D.B., J.H., and Y.M. generated the data. All authors reviewed the draft manuscript and approved the final version.

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