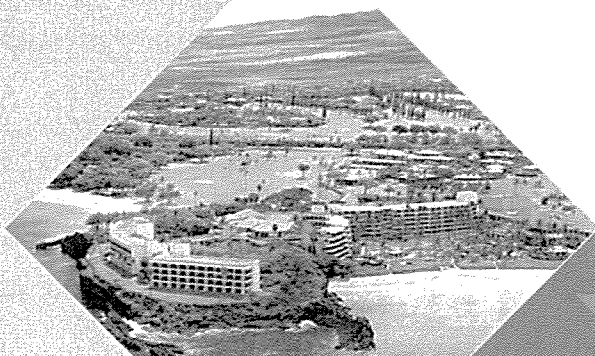


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Comparative Study Of Children's Current Health Conditions And Health Education In New Zealand And Japan

Kanae Watanabe, Aoyama Gakuin Women's Junior College, Japan
Annette Dickinson, Auckland University of Technology, New Zealand

ABSTRACT

In New Zealand (NZ) and Japan, despite national health and physical education (HPE) curriculums and schoolteachers' delivery of health education to children, significant health issues persist for children. Using a qualitative interpretative descriptive design method and semi-structured interviews with primary school teachers, we studied the relationships between health education, HPE curriculum, and children's health in both abovementioned countries.

The main child health issue identified by NZ teachers was obesity/overweight. In Japan, teachers broadly identified children's current health issues. As for delivery of health education, in NZ, there was a large disparity between the low and high decile ratings (i.e., school socioeconomic status). In Japan, HPE curriculum strictly decides the detailed what, when, and how concerning the learning upon which teachers must focus in order to teach from government-designated textbooks. Therefore, there was no disparity between schools, but teachers could not customize health education according to their students' needs. HPE curriculum in NZ was flexible and open, and this was both an advantage and a disadvantage. The disadvantage was that the health education was determined not by the needs of the children but by the available financial resources and teachers' enthusiasm, and even low-quality educational lessons could meet curriculum requirements. In addition, health education time was variable. In Japan, children can gain health knowledge and can have their academic curiosity satisfied, which may be advantageous for their futures. However, the HPE curriculum did not accurately fit children's current health issues. Moreover, it was difficult to teach all the contents of the government-designed HPE textbook within the allotted official health education regulation time.

Keywords: children, health education, curriculum, primary school, New Zealand, Japan

[1] Introduction

In New Zealand (NZ), obesity/overweightness and asthma are known as child health issues, and there are marked ethnic and socioeconomic inequities ¹⁾. For example, rheumatic fever is still a serious child health issue among one particular ethnic group in NZ ²⁾. In Japan, insufficient sleep, polarization of child fitness due to quantity of exercise, inadequate food intake, mental health issues, and experiences with abuse are reported as general health issues currently experienced by children ^{3), 4)}. In both NZ ^{5), 6)} and Japan ⁷⁾, national health and physical education (HPE) curriculums exist as guidelines for teaching HPE. Despite teachers' adherence to HPE within the classroom, significant child health issues persist.

Our research questions were:

1. What is the perception among teachers in both countries regarding the health issues that affect the children they teach?
2. What health education is delivered to schoolchildren, and what are the outcomes of that education?

3. What is the influence of the HPE curriculum and the education system on the health education provided in schools?

Through these three research questions, this study aimed to examine child health and health education issues in NZ and Japan and to offer recommendations for the improvement and development of health education for children in both countries.

[2] Methods

We used a qualitative interpretive descriptive design and conducted semi-structured interviews with teachers from five compulsory schools in both NZ and Japan (Table 1). Kanae Watanabe interviewed the NZ schoolteachers in English and the Japanese teachers in Japanese. All interviews were audiotaped and transcribed, and Kanae Watanabe and Annette Dickinson analyzed the data using Braun and Clarke's (2006)⁸⁾ framework.

Table 1: Participants (Interviewed)

	New Zealand	Japan
School	4 primary schools / 1 intermediate school (Public)	5 primary schools (Public)
Area	Auckland	Tokyo, Kanagawa (next to Tokyo)
Decile rating	Decile 1,4,7,10 primary (each) / Decile 10 intermediate	- (No comparable rating in Japan)
Teacher	4 females, 1 male	2 females, 3 males

The semi-structured interviews asked the following questions:

- i. What are the health issues faced by the children in your class?
- ii. What do you think are the main causes of these health issues?
- iii. What do you do in your classroom in relation to health education?
- iv. Is this guided by a health curriculum?
- v. Do you think the health curriculum is adequate to improve the health of the children in your classroom? (Not for all children, but in general)
- vi. What support do you need in order to carry out your health education?
- vii. What do you think are the outcomes for the health education received by the children in your classroom?
- viii. How do you think the health curriculum and/or education could be developed?

This research was approved by the Auckland University of Technology Ethics Committee (AUTEC) as Ethics Application Number 13/166 on 22 July 2013, and its approval expires on 15 July 2016.

[3] Findings

1. Children's health issues as identified by the teachers
 - a) New Zealand

In NZ, one of the most frequent child health issues identified by the teachers was obesity/overweightness. Low decile rating (decile) schoolteachers said that there were few, or not many, obese children (the ratio was less than 10%) in their schools. However, from the author's (Watanabe's) personal observations of their classrooms and schools, there were many obese children (about 20%). High decile schoolteachers told us that there were very few, or no, obese children in their schools. However, from the author's personal observation, in some classes there was no obese children, but in other classes 5–10% of the children were obese.

Another frequently identified child health issue was asthma. Both in the low and high decile schools, there were some children with asthma. The teachers' perceptions of the possible causes of this asthma were poor housing condition; that is, damp, overcrowded homes that lacked adequate insulation. Low decile schoolteachers reported that many of their children lived in poor housing conditions. However, high decile schoolteachers did not perceive

that the living conditions of their students affected asthma incidence. Therefore, the causes of asthma among the high decile schoolchildren could not be explained by housing conditions.

In NZ, Ministry of Health and public nurses clearly identified rheumatic fever as an issue in their reports and in information circulated to the schools ²⁾. However, teachers did not identify, or even know about rheumatic fever, even for the students who belonged to high-risk groups and schools in high-risk communities.

The findings concerning NZ children's health were as follows: while teachers had some understanding of obesity/overweightness and asthma as health issues, their knowledge in regards to the health issues faced by the community in which they taught was poor.

b) Japan

In Japan, the most frequent child health issues as identified by teachers were insufficient sleep and inadequate food intake. In addition, some teachers commented about the poor fitness condition of the children and about the polarization between the low-fit and the well-fit. The common reasons cited for insufficient sleep and low-fitness were console games, smartphones, social network services (SNS), busyness in cramming for school, and/or lessons after school. Teachers noticed that children began playing more inside instead of outside, and console games, smartphones, and SNS were the main activities engaged in during indoor play. These observations agreed with the official reports of children's health and lifestyle trends ^{3), 4)}. Teachers said that the students' inadequate food intake was the result of fastidiousness about food and Epicureanism.

The findings about child health in Japan are related to lifestyles and habits, which are formed, controlled, and affected by parents' lifestyle choices and by home discipline. Namely, Japanese children's current health conditions and issues might be influenced by the parent-child relationship. Therefore, children with families who live a healthy lifestyle do not need health education in schools. Children growing in the opposite type of family environment need to be educated about healthy lifestyles, but it is very difficult to change children's lifestyle if their families' lifestyles continue to be unhealthy.

2. Health education delivery by school teachers

a) New Zealand (Table 2)

All of the schoolchildren participants learned about healthy food and exercise. This was directly related to obesity/overweightness, which teachers identified as the main child health issue in their classrooms.

Table 2: Location, equipment, and support of low and high decile schools' education

	Location	Equipment and support	Lesson style	Resources
Low decile schools	only in schools	without additional costs without parental support (even though no cost for schools)	lecture only	- cost-free educators - amateur, volunteer coaches
High decile schools	in schools	with and without additional costs - special gears - professional coaches	lecture and activities (experiences)	not only cost-free educators but also professional coaches and instructors
	events in and around schools	with additional costs with parents' support (manpower, donation, provision)		
	outdoor activities	with additional costs - special gears - professional support with parents' support		

Low decile schools offered HPE only in the schools that used activities that did not incur additional costs. They needed parental support, but this was not always available. Parents could not come to school during the daytime because they had to be at work or risk losing a day's wages. Some parents were unable to come during the days because they had to take care of their large families. As for lesson style, low decile schools' lessons were mainly lecture-only. As for resources, low decile schools could use only cost-free educators; for example, police education officers, nurses, Life Education Caravan, and so on. They asked amateur volunteers to participate as coaches.

High decile schools' HPE was performed not only in the schools but also in the community and at outdoor locations. They used both cost-free activities and activities requiring additional costs. Furthermore, they incorporated special sports gears, like hockey sticks and uniforms. They also invited professional sports coaches. In and around the schools, they held HPE events; for example, Market Day, for which the students made and sold healthy food.

Concerning NZ's delivery of health education, there were large disparities between the low and high decile schools, especially in terms of the activities offered to the children. High decile schoolchildren had many opportunities to apply their knowledge and learned skills through activities, while low decile schools did not.

The health education outcomes mentioned by the teachers were: not specific but holistic, not focused on technique but on attitude, and difficult to measure or to evaluate objectively. The most frequently mentioned advantages were children leaving schools as well-rounded individuals and knowing how to manage themselves and how to relate to other people. The second most frequently mentioned advantage of the HPE was that children had good attitudes toward fitness.

b) Japan

In this country, the national curriculum requirements detailed what, when, and how each subject could be taught within the schools. All primary school students studied the same subjects in the same grade (school year) and in the same way using government-authorized textbooks conforming to the national curriculum. Therefore, there were no health education disparities observed between the Japanese schools. Every child had access to health education that met the standardized acceptable level. Almost all health education lessons were presented in a lecture style, so the children could get important health knowledge; however, sometimes there was an overemphasis on knowledge and a lack of practical training.

Children learned about the three factors of health: nutrition, exercise, and rest (sleep) during the 3rd and 4th grades (at ages 9–10 years old). They obtained this knowledge through textbook lectures, but they did not have the opportunity to apply their knowledge through activities. One further issue was the abovementioned health factors were concerned with lifestyle and habit. It is not easy for even adults to change their lifestyles and habits; therefore, the children had difficulty realizing the importance of the knowledge they obtained in their health classes. Another oversight of the program was that the child health issues of spending too much time with console games, smartphones, and SNS were not addressed by the teachers because they were not written in either the HPE national curriculum or the textbooks. Moreover, as one teacher mentioned, the necessary discipline concerned with lifestyles and habits should be taught at home by the parents, but parents tend to leave such disciplinary issues to schools. This tendency might, in fact, grow increasingly stronger in the days to come.

Many teachers mentioned that children's health education outcomes were not identified in relation to their school life. Teachers expected that learning health education during childhood might prove useful in the future. Even an overemphasis on knowledge could lead to significant health improvements because Japanese adults would be more knowledgeable about health issues.

3. HPE curriculum and education system

a) New Zealand

NZ schoolteachers perceived the HPE curriculum as being flexible and open, and they mentioned that it was easy to use and individualize for each school. This, as it turned out, was both an advantage and disadvantage to school health education. The advantage was that schools could prioritize the topics to be covered each year based on school and health priorities. The disadvantage was that each school's health education was decided on not by the children's needs but by the available financial resources and teachers' enthusiasm and motivation for teaching health education. Even low-quality educational lessons could be used to meet curriculum objectives, and the amount of time teachers spent teaching health education was variable.

Difficulties concerning health education centered around the following curriculum and education system issues: (1) Time for health education was limited; (2) Academic teaching—for example, reading, writing, and mathematics—took priority over health education; and (3) Unlike reading, writing, and mathematics, there was no measured or reported national standard of health education.

b) Japan

Strictly defined in detail, the Japanese curriculum and government-authorized textbooks showed the strong advantage of guaranteeing the quality of health education no matter which school the children attended. They were able to gain much academic knowledge of both health and health science. One disadvantage was that the national curriculum is renewed every ten years, so irrespective of the current situation of children's health issues, the same compulsory things have been taught for 10 years. The teachers commented that the curriculum dictated what and when they should teach, so they were not able to fit their lessons to children's current situations or teach current children's health issues that were not described within the curriculum. For example, teachers anxious about children's spending too much time on console games, smartphones, and SNS because those might be the causes of children's lack of sleep and exercise could not teach on this issue at all because these issues were not mentioned in the HPE curriculum, Living Environment Studies, or Moral Education program.

Other problems and difficulties with health education concerned with curriculum and education systems were health education time limitations and the priority of academic teaching over health education. These were common with NZ. Additionally, in Japan, regulated lesson time was not sufficient to cover the regulated contents written in the HPE curriculum and textbooks. Therefore, teachers always feel rushed when covering health education. Moreover, classroom teachers currently take charge of health education, but they need the support of health professionals (e.g., medical doctors, police officers, pharmacists, etc.), experienced citizens (pregnant woman, ex-smokers, etc.), and/or parents.

[4] Conclusion

The NZ HPE curriculum and education system both provided a good platform for school health education. In particular, in high decile schools children were offered varied and interesting programs to ensure their health, not only through lectures but also through activities. However, the disparities that were seen in relation to the health of the NZ children were also seen in delivery of health education within the schools.

The Japanese HPE curriculum and education system guaranteed the quality of health education and showed no educational disparities between students. However, teachers were unable to teach about the relevant current health issues affecting their students because those issues were not described in the HPE curriculum.

[5] Recommendation

We recommend the following improvements in children's health education in NZ and Japan.

a) For New Zealand

Professional training regarding HPE for teachers needs to be resourced and prioritized in low decile schools. These schools must have better access to high-quality free resources and educational specialists. It would also be necessary to set national standards for HPE, as is done for reading, writing, and mathematics. The Ministry of

Education needs to review the delivery of HPE in low decile schools. There appears to be a need for teachers to prioritize the delivery of health education that meets the needs of the community with which the teachers work.

b) For Japan

Reducing the compulsory contents of the HPE curriculum and textbooks might be necessary in order to provide health education that gives the children latitude. If the strictness of the HPE curriculum can be relaxed so that it can become more flexible, teachers can be creative with their lessons and can treat current child health issues within classrooms. Additionally, it might be effective to make an official system for getting professional support and to give parents the opportunity to relate to school health education programs.

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