IRENE POH-AI CHEONG

24. WORKING TOWARDS A HEALTHIER BRUNEI

BACKGROUND

Brunei Darussalam is a small equatorial country of 5,765 square kilometers that lies on the north-west coast of the island of Borneo. An affluent nation, its economy is based mostly on oil and gas. Brunei's GDP per capita of US$50,117 places the country fifth highest on this index internationally (International Monetary Fund, 2010). The population of Brunei is about 398,000, with Malays, who are Muslims, forming the majority (just under 67% of the country's people) (Prime Minister's Office, 2008). The annual population growth rate is just over 2.0%; life expectancy is 75 years (Central Intelligence Agency, 2010). Brunei meets all 10 global health indicators of the World Health Organization (WHO) as well as the UN Millennium Development Goals (WHO, 2004). The Human Development Index (HDI) level of 0.919 ranks Brunei 30 out of 177 countries (United Nations Development Program [UNDP], 2009).

Brunei's health services are ranked amongst the best in Asia (WHO, 2009a). The ratio of general practitioners to people is 1:992 (Mohamad, 2008). Health and education expenditure per capita constitutes 5.1% and 9.1% of total government expenditure, respectively (UNDP, 2009). Brunei's citizens receive free public healthcare and have access to overseas specialized medical treatment if their needs cannot be met in Brunei.

Brunei's long-term vision is to diversify its activities to overcome dependency on oil and gas, as well as to achieve a well-educated, highly skilled population who enjoy a high quality of life and live within a sustainable economy (Brunei Economic Development Board, 2008).

HEALTH ISSUES IN BRUNEI DARUSSALAM

Brunei has an enviable record in being almost free of major communicable diseases. WHO declared the country malaria-free in 1987, poliomyelitis-free in 2000 (WHO, 2009b), and free of seasonal infectious diseases such as SARS (severe acute respiratory syndrome) and H1N1 (subtype of the influenza A virus). However, non-communicable illnesses, such as cancer, heart diseases, diabetes mellitus, cerebrovascular diseases, hypertensive diseases, and respiratory diseases (bronchitis, chronic and unspecified emphysema, asthma, influenza, and pneumonia) are the leading causes of death (Ministry of Health, 2008). The modifiable behavioral risk factors of these diseases are unhealthy diet, obesity, lack of physical activity, and smoking (WHO, 2009b).

Brunei has a diabetes prevalence rate of about 25%, and its younger population, with a high incidence of obesity, risks developing Type 2 diabetes (Dash 1999;

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"Diabetes: A Brunei Affliction," 2009; Van Eekelen, Stokvis-Brantsma, Frolich, Smelt, & Stokvis, 2000). Obesity is alarmingly on the rise among children in Brunei; 33% were classified as overweight or obese in 2008 (Ishak, 2008) compared to 9.1% in 1999 (Ministry of Health, 1999, cited in Tee, 2002). Weight disorders are also common, particularly among Malays, people of middle age, and females (Chong & Abdullah, 2008).

The common occurrence of abandoned newborns as a result of teenage pregnancies is also an issue. At least 18 cases were reported between 1995 and 2002 ("Increase in Abandoned Babies," 2003), and five cases in 2009 ("Abandoned Baby Needs Mother's Milk," 2010). The Ministry of Health asked parents and the public to partner with them to deal with this problem ("Need Public–Parents Partnership," 2010). Calls for introducing sex education as a separate subject into the education system ("Teach Sex Education in School," 2010) have been made in order to address "the number of babies born out of wedlock to teenagers aged less than 19 years" (Rasidah, 2010). Brunei also recognizes the need to achieve the WHO standard in dental health (Ottoman, 2006).

Because intoxicants such as alcohol and drugs are *haram* (forbidden) to Muslims, their sale and public consumption is banned. However, compared to other ASEAN (Association of South East Asian Nations) countries, the rate of drug use in Brunei is relatively high. Brunei thus needs to focus on psychological and sociocultural settings to prevent drug abuse among its youth (United Nations Office on Drugs and Crime, 2009). Islamic-based organizations play a key role in helping youth say "no to drugs" through motivational talks and workshops. The ban on smoking in public places, which came into effect on June 1, 2008, is enforced through the Tobacco Act of 2005 and its 2007 regulations (Razak & Ong, 2007). However, smoking is still prevalent, and is the major cause of cancer in Brunei.

HEALTH EDUCATION IN BRUNEI DARUSSALAM

Community Health Education

To promote good health, education materials, posters, and pamphlets on health topics are made available to all (Ministry of Health, 2010). A major initiative has been the National Health Care Plan 2000–2010, which aimed to increase public awareness of non-communicable diseases. Strategies focused on supporting people to embrace a healthier lifestyle through community participation and inter-sectorial collaboration directed at seven priority areas: nutrition, food safety, tobacco control, mental health, physical activity, health environments/settings, and women's health. These priorities were promoted through special events, publicity about major health issues, and appropriate measures for modifying lifestyles (WHO, 2008).

An example of these health promotion initiatives is a program that teaches healthy lifestyles to selected people with a body mass index of over 30. The

three-month program consists of group sessions for physical activities, such as walking, hiking, trekking, and obstacle games. The program offers presentations and discussions on healthy diet, motivation, stress management, time management, and a range of physical exercises. It also involves fostering a commitment to physical activities, advice on how to prevent relapses, and ways of overcoming barriers to participation in physical activities. It furthermore includes shopping trips directed at identifying and buying healthy food. Individual consultations with a psychologist, dietician, and physiotherapist are followed up every six months. However, success rates, as defined by a weight loss of five percent, have been low—at between 11.9% and 17.3% (2008/2009 data).

World Diabetes Days (Ishak, 2008) are observed through charity walkathons, healthy *mukim* (village) programs, free health examinations, exhibitions, and distribution of posters to schools. A national diabetes plan, involving parents, teachers, and other community leaders as well as healthcare providers, is currently in the planning stage. Its aim is to educate people about how to prevent diabetes and its complications ("Diabetes: A Brunei Affliction," 2009).

Drug, alcohol, and smoking education is conducted via public talks, open dialogues, exhibitions, information in pamphlets, sports activities, mass urine screening, and anti-drug campaigns. Interventions such as the "Demand Reduction Strategy," Anti- Drug Badge project, trade fairs, and counseling sessions are also in place. Efforts to counteract smoking include education programs on the hazards of smoking that encompass road shows, health talks, exhibitions, and smoking cessation clinics (Wilson, 2010).

Formal Health Education in Brunei Darussalam

Between 2006 and 2008, much attention was given to providing sports facilities in schools and increasing human resources for physical education. About 40.5% of total expenditure for the Ministry of Education Building Improvement of School and Infrastructure program was allocated to providing and upgrading sports facilities in government schools (UNDP, 2009).

The school curriculum is implemented in a didactic manner and is taught according to prescribed syllabi; students rely on drill and memorization to pass examinations that enable them to move to the next grade level. Much health education in the school system and in the community focuses on knowledge dissemination instead of changing behavior. Although the school curriculum has been revamped in recent years (Ministry of Education, 2010), much of the content in terms of health education remains the same as it was 10 years ago. Positive change, however, has included integrating within the curriculum core values and attitudes relevant to health education, such as self-confidence, self-esteem, self-reliance, and independence, along with caring, concern, and sensitivity. Health and physical education has been allocated as a separate area of study, and emphasis on school-based assessment may allow for greater innovation in health education. Descriptions of two relatively recent innovative programs initiated in Brunei with direct or indirect implications for health education follow.

The first program, an interdisciplinary one called English and Physical Education for Health Education, was trialed in a secondary school. Strategies focused on integrating healthy concepts into English-language learning and providing students with opportunities to increase their physical activity. Students' health concerns, such as nutrition, sexuality, and physical activities, were investigated. On Healthy Food days, students contributed money so that teachers could provide healthy food. Discussions were held as to why the teachers chose certain foods and how students could establish healthy eating habits. Students also examined their school lunch-boxes to identify the categories of food they contained. Students' correspondence with pen-friends in Australia contributed to building up their self-esteem in general. Extracurricular activities promoted physical activities, with students contributing to the running of these activities (Williams, 2003).

The second initiative saw university students engaged in community problem-solving projects, some of which involved local health-related concerns. Three of these serve as examples. Concerns related to disposal of cooking oil led students to discover that restaurants were disposing of some of their waste cooking oil by giving it free to food vendors. Their actions were creating health problems for the community (Ibrahim, Hassim, Lamit, & Rangga, 2008). The students produced pamphlets for the public that addressed how to cook without oil, the harmful effects of cooking with waste cooking oil, and proper ways of disposing of waste cooking oil, which included recycling it for diesel-engine fuel or soap-making.

During the second project, students endeavored to make the community aware that the common use of polystyrene food containers meant that styrene was leaching into hot and oily food (Abdul Rahman, Eu, Muhammad Kincho, & Muhamad, 2008). The students let vendors know why they needed to change containers, and they suggested alternatives, such as reusable steel containers.

The third project focused on the use of cars as the main means of transporting children to and from school (Zakaria, Wahab, Ismail, & Abdullah Bayoh, 2010). The university students proposed to schools that they needed to encourage parents to let students use healthier transport options, such as walking, taking the school or public bus, and cycling.

CHALLENGES FOR HEALTH EDUCATION IN BRUNEI DARUSSALAM

Health education programs designed to overcome preventable diseases and solve present and future health problems need to be implemented in such a way that they can bring about positive changes not only in attitudes and beliefs but also in behavior. The National Center for Chronic Disease Prevention and Health Promotion (Division of Adolescent and School Health, 2008) considers curricula that overemphasize teaching scientific facts about health matters in order to increase student knowledge of them are relatively ineffective. Health education curricula should accordingly be based on sound research evidence and emphasize the teaching of essential health-related concepts. Personal values that support healthy behaviors also need to be emphasized, as does shaping group norms that

value healthy lifestyles and helping students develop the skills necessary to adopt, practice, and maintain health-enhancing behaviors.

The essential challenge for Brunei is to bring into play a full commitment to a health education policy that enables education institutions and health-promotion agencies to develop and implement new and innovative ways of markedly improving the health of Bruneians. Although some efforts commensurate with this aim have been taken, they are neither widespread nor publicized. Innovative health education programs must be underpinned with modes of assessment that allow practitioners and educators to determine the extent to which people have the skills and ability to identify and work toward alleviating their health problems. Assessment and development of affective factors that are important drivers of healthy lifestyles, such as caring for others and valuing oneself, is an important accompanying aspect of such programs. The next sections of this chapter focus on four types of program that contain these components and so should help secure a healthier Brunei.

Life Skills Programs

In order to tackle its obesity problems, Brueni could implement long-term life skills programs, such as the Kitchen Garden Program (Brock & Johnson, 2009) and the School Lunch Initiative (Rauzon, Wang, Studer, & Crawford, 2010). These types of program also promote the eating of vegetables and fruits. Life skills programs furthermore involve campaigns directed at preventing teenage pregnancies. Youth are taught skills such as assertiveness and negotiation and are encouraged to engage in open discussion and communication with one another, teachers, and health professionals about specific sexual practices (Smith, Kippax, Aggleton, & Tyrer, 2003). An example of a successful such program is Abstinence Only. Its content includes information and discussion on parenthood, dating, sexual refusal skills, and remaining true to oneself (McGuire, Walsh, & LeCroy, 2005). Another useful program, described by Henderson (2010), uses inquiry-based approaches that enable students to develop links between values and decisionmaking skills and from there make informed choices about their health, wellbeing, and general resilience.

Action-Oriented Projects

Health literacy is not just about transmitting information, distributing pamphlets, putting up posters, and making appointments to see health professionals (Nutbeam, 2000). It is also, and more importantly, about taking action on the social, political, and economic determinants of health. In practice, this means teaching students the critical components of health literacy, such that they understand the determinants of health and have the skills to take remedial action when necessary. However, little, if any recognition, has been given to this type of teaching in Brunei's schools, and this lack appears to be one of the main impediments to bringing about the type of curriculum change necessary to accomplish a critical level of health

literacy. Also, as Gould, Mogford, and DeVoght (2010) remind us, health educationalists and professionals themselves need to be educated.

A particularly needed emphasis within the health curriculum is that of action learning. This type of learning helps empower young people to live healthily and to promote healthy living conditions (National Institute of Child Health Greece, 1997). The three examples of community problem-solving projects by Brunei university students described above provide just one possible action-competence approach that Brunei could adopt in this regard. Experience in Denmark (Jensen, 2004) shows the success of such initiatives.

Religious and Cultural Practices

Brunei has adopted, as its guiding national philosophy, Melayu Islam Beraja, or MIB (Malay Islamic Monarchy). Education strategies are guided by the culture and traditions inherent in this philosophy (Charleston, 1998). Much of Brunei's educational provision emphasizes cognitive outcomes rather than affective and competency-based ones. For example, a study funded by the Joint United Nations Programme on HIV/AIDS found that education systems in some countries, including Brunei, employ HIV/AIDS-related education that is largely information-bound. Sex education is conducted in a mechanistic way, focusing mainly on human reproduction and anatomy (Smith et al., 2003). The study also found that when education programs cater to the cultural sensitivities of the majority of the population, the effectiveness of those programs can be compromised because they do not address certain health issues, often because of inherent gender bias. From her study of Bruneian health textbooks, Elgar (2004) found that the gender bias evident in them meant concealment of issues affecting women's health.

Hinyard and Kreuter (2006) suggest that because oral story-telling plays a significant role in Malay culture, it could be used to promote positive health behavior. Cheong and Thong (2004) have done just this with respect to promoting pro-environmental attitudes in Brunei. Also, because Muslims in Brunei adhere strictly to the teachings of the *Quran*, passages from it could be used to promote healthy lifestyles, such as this one:

> O Children of Adam! Wear your beautiful apparel
> At every time and place
> Of prayer: eat and drink:
> But waste not by excess,
> For Allah loveth not the wasters. (al-A'rāf:31) ('Alī, 1989)

Reference could also be made to passages in *Hadith*, which records the traditions or sayings of the Prophet Muhammad. An example is this excerpt, which refers to eating and drinking in moderation.

> The Prophet (peace and blessings be upon him) said:
> No human ever filled a container more evil than his belly. The few morsels needed to support his being shall suffice the son of Adam. But if there is no recourse then one third for his food, one third for

> his drink and one third for his breath. (Narrated by Turmudzi, Ibnu Majah, dan Muslim) ("Eating and Drinking," 2010)

Reference could also be made to religious edicts published for use in education. Those relating to use of medicines (Kasule, 2008) and models for eating set out in the Quran (Muhammad as-Sayyid, 2006) are just two examples.

Using ICT for Positive Health Behavior

Although giving out leaflets on health matters is thought to be effective in some countries (see, for example, Murphy & Smith, 1993), research conducted by Paul, Redman, and Sanson-Fisher (2003) suggests that even pamphlets that are well designed and include adequate content may not be an effective means of relaying information and changing behavior. Better ways of communicating information are needed. Information and communication technologies (ICT) have the potential to deliver, at low cost, programs aimed at changing people's health-related behaviors. They are particularly likely to appeal to students from the "digital generation." Ferney and Marshall (2006) identify the utility of websites that include simple interactive features, such as online community noticeboards, personalized progress charts, email access to expert advice, and access to information on specific local physical activity facilities and services. The online social networks that have become particularly popular amongst young people in recent years could provide an especially valuable means of imparting health education.

CONCLUSION

If Brunei is to achieve its aspiration of bringing about a high quality of life for all of its people, much greater effort than that currently being exercised is needed, especially with respect to people's health. Better health education within both schools and the wider community is a key to realizing this aim. There is a need to change behaviors and convert problems to solutions instead of just focusing on improving knowledge and attitudes. There is also a need to implement in health education programs attitudes and practices learned from research, especially those that take a holistic approach to health and health education. Adopting an interdisciplinary approach to education and health and empowering the young to act in ways that exemplify healthy living are essential.

Psychosocial determinants of health behavior also need to be incorporated in schools' health curriculums and assessment practices. These determinants, which are grounded in the belief that each of us can exercise the control needed to change and improve our health-related habits for the better, encompass motivation, the perseverance needed to succeed, ability to recover from setbacks and relapses, and ability to maintain changed habits (Armitage & Conner, 2000).

Health changes can only be effective if supported by social systems (Bandura, 2004), which include infrastructural, personnel, and policy aspects. For example, involving health education personnel in making health reports has proved effective in promoting healthy lifestyle practices (Kwong & Seruji, 2007). Providing safe

facilities for walking and cycling and encouraging use of public transport are also part of this process (Brownson et al., 2000; Pucher & Dijkstra, 2003; Saelens, Sallis, Black, & Chen, 2003). Brunei takes pride in the many jungle walking trails available to its residents. However, many of these trails need to be better mapped and made more accessible if the public is to continue using them safely. In essence, a healthier Brunei is reliant on inter-sectorial partnerships within and across government as well as non-government agencies—partnerships that are committed to the same goals and the same means of achieving them.

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