A mini-review of technology, physical health and identity among youth in Cambodia: policy implications for the Cambodian ministry of education, youth and sports

Abstract

Developing countries face myriad challenges to fit into the globalized and digital world. Research abounds in the westernized world about the benefits and perils of on onscreen time usage among youth. However, few developing countries have reflected on the serious nature of potential health threats resulting from hours spent daily online. This mini-review addresses three topics that indicate significant areas for concern: technology, health and identity. Drawing from the review, policy recommendations are offered for the Cambodian Ministry of Education, Youth and Sports. The context in which Cambodia will need to address these concerns merits a short description of this country's recent history and its consequences.

Keywords: Cambodia, technology, health, identity, sports, national Cambodian policy

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Introduction

Today Cambodia is in the throes of economic development. This country moved from agriculture to a modern economy in a short period of time, from the eighties to the present. Along with this rapid development came heavy usage of the Internet, particularly among the youth. Very few young people today in Cambodia know the depths of the social and health problems caused by the Khmer Rouge Genocide from 1975-1979. Most parents do not speak about it to any significant extent. Out of this horrendous history, Cambodia has worked over time to make up for lost years. Rapid development has its costs in health and the personal identity of most of the youth population. Raised in Cambodia until I began the university studying computer science in the United States, with many trips back to my homeland, I have seen several results of high onscreen time usage among the youth and its effects on health in a general sense. Technology, while we cannot avoid it, not do we want to, needs to be understood and used appropriately. This requires education on health and personal identity, informed use of technology, and regimes to keep physical activity central to one's life. A primary venue for such education is through national policy.

Consequences of the Cambodian genocide

During the period from 1975 to 1979, Cambodia was under control of the Communist Khmer Rouge. There were many costs of this war on the people of Cambodia but for the purpose of this article, the primary point comes from the effects of starvation over time, resulting in diabetes. Due to long hours of daily work, no food—people forced to eat dirt and wood—, torture and execution, one in four of the population died. These conditions did not only effect that particular generation but it also can be effecting the current generation and those to come. As Herda and Dzubur[1] write:

Researchers from Brown University in the United States and Harbin Medical University in China found a rise in diabetes among people who were conceived during a famine or starvation on the part of the mother. There may be multigenerational effects; changes in how genes function caused by famine may be passed on to future generations. This means Cambodians born long after the Khmer Rouge's regime may also suffer effects from those years of brutality.
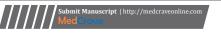
Type 2 diabetes is prevalent in Cambodia and has been called the Silent Killer.[2] Hundreds of thousands people in Cambodia suffer from type 2 diabetes. From the words of Dr. Lim Keuky, an endocrinologist and the head of the Cambodian Diabetes Association, one can see its prevalence. He speaks to this issue on more than one ocassion: "You can go to every village with me and see it. When I go abroad to developed countries, people say I'm lying. I am not lying."[3,3] Clinics are crowded with diabetes patients in their 30's. A link to even more serious health problems than the normal developing country experiences can be established here between a country already suffering from a diabetes epidemic and what happens to people when they experience too much onscreen time and little to no time on sports and physical exercise— the onset of type 2 diabetes. Even in western countries where presumably the population is healthier, there is a plethora of research that now points to an excess amount of time onscreen (three hours or more) leads to type 2 diabetes. As an example, one study at St. George's, University of London, found that children who spend the most time with TV or other electronic devices on a daily basis exhibit more physical risk factors for diabetes. Katie Forster reports on the work of researchers from St. George's:

Our findings suggest that reducing screen time may be beneficial in reducing type 2 diabetes risk factors, in both boys and girls and in different ethnic groups from an early age.[4]

In light of the Silent Killer in Cambodia, it appears that this country faces double jeopardy when it comes to the risk of type 2 diabetes affecting those who spend excessive hours onscreen.

Technology and physical health

Physical health is strongly related to physical activity. Without the care of our bodies, our life and profession have reduced meaning

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and success. In many ways, the human body is very similar to the mechanical parts of a machine; it requires people to take good care of it in order for the body to function properly. Spending many hours looking at the phone screen or computer screen reduces or eliminates the time we have for physical activities. An article in Digital Society states:

Second to smoking, physical inactivity is the second highest cause of preventable death in the world. There has been an increasing amount of research linking digital technology to a lack of physical activity, with children and adolescents all over the world spending large amounts of time in front of screens.[5]

There are additional effects of lack of physical exercise other than poor quality of life, such as obesity and waste of time. When young people spend hours watching television, playing games on their phones, or uploading pictures of themselves and friends on social media, they tend not to partake in sports or outdoors physical activities. Thomas N. Robinson et al. report in "Pediatrics:"

Obesity is one of the most challenging public health problems facing both developed and developing countries worldwide. Screen media exposure is one of the best-documented causes of obesity in children and, likewise, obesity is one of the best-documented outcomes of screen media exposure.[5]

This report also indicates that simply because a screen is taken away from someone, it does not mean that this person will automatically begin to engage in physical activities. For physical activities to replace hours on end of screen time, there needs to be parental and educational directives. It used to be natural for children to partake in physical activities. Many now have lost this type of activity in their lives. They need to be ret aught.

It is during onscreen time that young people snack on unhealthy foods, which is encouraged by advertisements. While a child is in front of a screen for hours, often he or she eats foods that increase weight, the very foods that entice children through fast food branding in a 30 second commercial. In addition to obesity, cardio metabolic risk factors such as higher cholesterol and insulin resistance come into play with greater time spent onscreen.[6]

Eating unhealthy snacks is on the increase in Cambodia along with a modest income increase, allowing for more money to be given to children to spend.[7–9]

Cambodia's street and village culture is replete with shops that sell unhealthy snacks. In prior years, when there was less expendable income, the fruit trees that abounded in family yards provided nature's snacks. Moreover, this increase in expendable income in Cambodia has encouraged parents to buy their children smart phones. Now, one can see children as young as two to three years of age using a smart phone hours on end. The parent believes they are giving their children the best things money can buy, plus "everyone else has one," so goes the child's plea. There is little to no understanding of a role the parent should play in monitoring smart phone usage. Between games and social media young Cambodian people are on their smart phone many hours a day. It is interesting to note that the children of many tech giants are not allowed to use smart technology; some exceptions are made when the computer is needed specifically for school homework.[10]

Not only is there a lack of physical exercise, an increase in obesity and other health problems related to excessive time spent on the screen, there is also the question of social health. More specifically, how is the identity of individuals affected by extensive use of social media, and perhaps even the identity of Cambodian culture itself?

Technology and social health

In 2014, sixty-four percent of the urban youth in Cambodia had access to the Internet (UNDP).[11] Now, five years later, while I have not seen anything in print, I would assume that most all of the youth in urban areas have Internet access and probably more than 50 percent in rural areas. In the U.S. the West Virginia Education Association[12] reports on a research project comprised of a survey of 2,658 student representative of the nation and found that high school youth spend nine hours a day onscreen, not including time spent online related to homework. My guess is that youth in Cambodia are close to this notable and unfortunate statistic. In talking to family and neighbors while home in Cambodia for visits, and through close observations, the popular sentiment among many young people is that through the new technology available to them such as social media, they can stay connected with their friends and family more closely than before. However, over time, they are connected to hundreds of people they have never met, in addition to their close family and friends they see each day. A question of "who am I?" is woven, most likely unconsciously, throughout the hours-long process of living on social media, posting pictures and emoji in trying to express who they want the cyberspace "other" to think they are. Most people have the tendency to put their best foot forward and in so doing may post images that portray only their best self, or the self that the popular media suggest they should be. It is important, as argued by Jim Taylor, to recognize that "… social media has caused us to shift away from expressing our self-identities and toward constructing facades based on the answers to these questions, 'How will others look at me?' and 'How can I ensure that others view me positively?' "[13] When this is the case, a question arises if the young person's sense of individual identity is lost and if there comes about a pattern of trying to be someone other than one actually is, than how do we change such behaviour? In response to this question, again, I cite Jim Taylor, a world-class alpine skier, a second-degree back belt in Karate, and a sports researcher, who refers to the children of this age as "digital natives" raised in a "world dominated by popular culture and technology."[14] Taylor's words well describe the context of the digital natives and the domination they are under. Understanding the context is critical to addressing the call to undermine such domination.

Taylor's insight is noted in his quote from Psychology Today when he describes a basic need we have to feel good about ourselves; young people, especially, want to be accepted and attractive to others. As Taylor points out: "…popular culture tells us what we should believe about ourselves. The problem is that the self -identity that is shaped by popular culture serves its own best interests rather than what is best for us."[14] So the question arises about who we are in relationship to the dozens or even hundred of "friends" we have on Facebook, for example. How many young people could write an essay about who they are without the use of photos and emojis? In sports, for example, we establish face-to-face relationships; through sports we develop a full person if, as Taylor argues, we use all aspects of the self in our physical activities, specifically those that are essential to success in sports—physical, technical, tactical and mental.[14] Youth have developed a pattern of living online. The only way to change a pattern one does not want is to replace it with another pattern. The patterns established in a good attitude, consistent discipline and honest social

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relationships reflected in the successful practice and participation in sports is perhaps the best substitute for poor life patterns found in so many lives of our youth who spend hours a day online.

Noted philosopher, Paul Ricoeur,[16] argues that we establish our identity only in relationship to others. When we live online, our relationships are one-sided except perhaps it could be argued that we have a relationship with a cyberspace "other," an other who we have never met and who we only know by what this person poses as their idealized self. Selfhood and our knowledge of self emerge through our understanding of our own relationship to our world as well as understanding our personal life with and among others over time in the world. It remains a question if this type of knowledge could be gained by creation of fanciful personages depicted through photos and emoji. When the number of followers we have online determines our self-worth, we risk losing the life preparation skills and experiences needed to meet, understand, and live and work successfully with others. It is at this point that national governments could step in with policies that redress an over-use of technology by the youth of their country.

National policy

In Cambodia, the website of the Ministry of Education, Youth and Sports,[17] delineates the plans and objectives for all Cambodian youth. The primary objective for the Education sector is to provide equitable access to quality education for all youth in coordination with the general development plans of the Cambodian government. The most important objective under the Youth sector is the first line which indicates the "program is to ensure that all Cambodian youths know their personal and national identity and the importance of knowledge by striving to develop their capacity, sense of responsibility, good morals…good examples at work and in society… and by contributing equally to national development." The Sports sector holds the objective of the physical education and sport development program to promote health, physical and sport education so youth can effectively compete in competitions and contribute to the social, cultural and economic development of Cambodia. Each sector outlines its objectives with a common theme attending to the effective development of the country of Cambodia. It is the first line of the Youth sector that holds the most interest for this review and the point that could provide an overall objective that inter relates the three sectors of the Ministry. There is no acknowledgment of the potential risk that technology, while being of critical importance to the development of Cambodia, could yield the very opposite type of youth needed for the social, cultural and economic development of Cambodia.

In many countries, there is awareness that prolonged online usage can create addictive habits. Myriad studies have been conducted indicating this serious problem among youth. However, few governments have taken steps in acknowledging this as a serious problem and even fewer have developed a national plan to combat such addiction. The South Korean government was the first in the world to speak to this problem with the development of a national policy.[18] To address the problem of Internet addiction, Young-Sam Koh delineates the policy and the programs Korea has developed in the areas of counseling and treatment systems that can involve both outpatient and hospital care.[18]

This problem most likely does not exist in Cambodia to the extent it does in more developed countries. However, it is from a preventive perspective that I address potential policy moves the Cambodian

government could address in hopes of adverting such tragedies as well as developing a more integrated plan that brings together education, sports and youth with a main outcome that promotes effective and appropriate use of technology. Below are areas that national policy development could address.

1. Use the main objective under the Youth sector that all Cambodian youth know both their personal and national identity, to unite and integrated the three sectors of Education, Youth and Sports. It is in the issue of selfhood and identity that many other factors will find successful expression, such as personal relationships, responsibility, discipline, healthful living, sports and the sense of each person's own place and importance in national identity and development.

2. Provide teachers an education on the signs of Internet addiction and use both existing research and teachers' experience to develop inventories to use in classrooms to determine if students have a tendency toward addictive behaviors. Help teachers distinguish between appropriate and inappropriate use of technology.

3. Provide teachers with ways to substitute patterns of excess Internet usage with organized physical activities and sports. Sports could be integrated more strongly in the national education goals. Highlight the importance of physical activity and sports not only for competitive events but also for the goal of being healthy.

4. Educate both teachers and parents on the importance of reducing the consumption of foods that tend to cause obesity. Educate both parents and educators on how to monitor Internet usage and how to address this issue to their child in a positive way as opposed to simply telling him or her to stop using the Internet.

5. Outline plans and programs for teacher to strengthen social competence and increase ability to communicate face-to-face in both group activities and personal time with classmates. Help teachers to encourage student participation in healthy activities during break time at school and at home, and to develop closer relationships with colleagues and friends by carrying out joint activities other than those online.

6. Reduce the length of the academic school day allowing time for physical activities to be integrated into the education curriculum.

7. Instill in the youth that they are the future of Cambodia and how they perform in all aspects of their lives is critical to the successful development of their country. Develop a sense of worth in every student. Help the youth to establish their own identity rather than developing an identity on line that may or may not reflect who he or she really is.

Technology is critical to the successful development of Cambodia. At this point, the government both on national and provincial levels could work to educate teachers, parents and students on the most effective ways to use technology, thereby avoiding some the dangerous traps many youth in more developed countries have fallen into.

Summary

Cambodia's recent history is unique because so many people suffered starvation during the Khmer Rouge era, and today's generation needs to be doubly careful for its health. The effects of multigenerational tendencies toward obesity put the Cambodian youth in a precarious situation; they need to understand the results of both

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their history and the current days' heavy reliance on the Internet. The overuse of technology can cause significant negative repercussions on both physical and social health. However, awareness and creativity are the requisites to solving many problems any individual or society faces. The Cambodian government has the opportunity to step in now to develop plans and policies that can prevent many of the problems that are now very difficult to overcome in more developed nations.

I am writing this review as a computer scientist who loves modern technology, and who relies on it for both personal and professional reasons. Exploring topics on the Net is one of my favorite activities, but I also know the consequences of overuse and over-dependency on the beloved screen that so many of us live with. We cannot keep silent about the truth of the Internet; if we do not tell and teach others, such silence could eventually come to haunt us. My personal and professional goals find expression in spreading the word about technology—its marvelous benefits and its perils—and how to fit its use into both personal and national identity development, giving rise to healthy relationships near and far beyond our borders.

Author's note

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Conflict of Interests

The author declares that there is no conflict of interest.

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