

Adolescent Psychosocial Development and Evaluation: Global Perspectives

Fadia AlBuhairan¹, Rosawan Areemit²,
Abigail Harrison³ and Miriam Kaufman⁴

¹*Department of Pediatrics, King Abdulaziz Medical City
and King Saud bin Abdulaziz University for Health Sciences, Riyadh,*

²*Division of Ambulatory Pediatrics, Department of Pediatrics,
Faculty of Medicine, Khon Kaen University, Khon Kaen,*

³*Department of Child Health, University of the West Indies, Mona,*

⁴*Division of Adolescent Medicine, Department of Pediatrics,
The Hospital for Sick Children and University of Toronto,*

¹*Saudi Arabia*

²*Thailand*

³*Jamaica*

⁴*Canada*

1. Introduction

Adolescence is a product of the modern world. It has developed into a distinct stage of life as a result of a shift in many societies requiring a highly trained work force. When this is not needed, young people usually acquire skills needed to work as they grow up. As they go through puberty, they acquire additional responsibilities, usually with the oversight of parents or in apprenticeship to others outside of the family. Young women usually marry close to the time of the onset of fertility. However, with increasing education needs, there is an increasing gap between physical maturation and the ability to take on adult responsibilities. Young people who join the workforce early can be at a disadvantage compared to those who can complete more education. Young women have increasing control over their fertility in these societies, which also gives them these extra years to become more educated.

These factors lead to a cohort of young people who have adult bodies without having adult responsibilities. They have the luxury of time to contemplate, to take risks, and to define themselves in new ways. All of this has led to the phenomenon of adolescence, which encompasses and goes beyond the physical changes of puberty.

This is not to say that adolescent development has not previously existed; it is rather that societies' awareness of this developmental stage of life has only recently emerged or been modified because of the societal changes that have occurred and the effects of globalization.

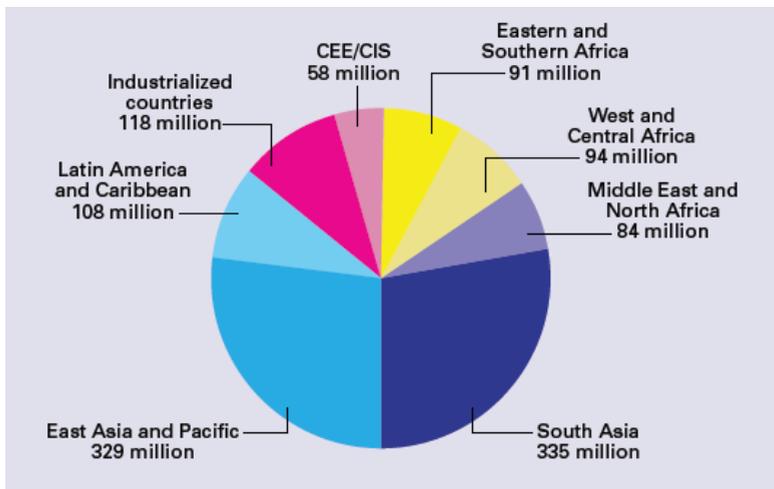
As a definable period of adolescence is created in a society, it is accompanied by new societal issues – children separating emotionally from their parents while still being reliant

on them, experimentation with drugs and alcohol, sexual expression outside of traditional marriage, body image issues, and others. Healthcare practitioners can provide anticipatory guidance to parents and their adolescents, gathering data with sensitive, non-judgmental questioning. All of this must be based on an understanding of adolescent development.

2. Global trends in adolescent demographics

In many parts of the world, only childhood and adulthood are seen as distinct phases of life. Adolescents, as defined by the World Health Organization and United Nations, are those individuals aged 10-19 years (United Nations Children's Fund [UNICEF], 2011). Though different healthcare organizations and societies may define adolescents differently because of societal, cultural, and economic conditions, the term adolescent in this chapter will refer to the above-mentioned age group.

There are currently 1.2 billion adolescents in the world, making up 18% of the world's population. Eighty-eight percent of adolescents live in the developing world, and more than half of the world's adolescents live in South Asia or East Asia and Pacific region (UNICEF, 2011) (Figure 1). Previously, much focus was given to preventing communicable diseases of childhood. Significant improvement in that regard has come about, and now leaders globally are recognizing the need to address and focus on the second decade of life, adolescence, in order to sustain and consolidate the achievements made during the first decade of children's lives (UNICEF, 2011).



Source: UNICEF, *The State of the World's Children 2011: Adolescence an age of Opportunity* (2011), as cited in United Nations, Department of Economic and Social Affairs, Population Division. *World Population Prospects: The 2008 Revision*, www.esa.un.org/undp/wpp2008/index.htm, accessed October 2010.

Fig. 1. Adolescent population (10-19 years) by region, 2009

There are some clear demographic differences throughout the world. This may be explained by the differences in initiation of decline in fertility and mortality rates. Those countries, many of which are in North America and Europe, that had the earliest initiation of decline

in fertility and mortality rates, now have low growth rates and an aging population. Countries that had a later initiation of decline in fertility and mortality rates, such as those in Latin America, the Caribbean, East Asia, and some parts of the Middle East and South Asia, continue to have moderate population growth. In most of Sub-Saharan Africa and some parts of the Middle East and South Asia, there has not yet been a decline in fertility and mortality rates, and so in these parts of the world, young and youthful populations are seen (Brown et al., 2002). These differences result in a contrast in the age structure and age-dependency ratios of individual countries and impact the economic and social structure of a country in varying ways (Assaad & Roudi-Fahimi, 2007; Brown et al., 2002).

When it comes to health care, pediatricians in developed countries have been given the responsibility to care for adolescents (American Academy of Pediatrics, 1978). This is largely due to the fact that adolescents continue to grow and develop, a hallmark of pediatrics. Although the physical development is the first and earliest to be completed, adolescents continue to undergo cognitive and emotional development well into their 20's. The age limit of Pediatrics varies across the world. Many developed countries have extended the age limit to 18 or even 21 years, while other countries, mostly developing countries, have lower age limits.

Adolescents are generally the healthiest of the population, with their leading causes of death being accidents, homicide, and suicide (Brown et al., 2002). HIV/AIDS is the leading cause of death in some parts of the world (Brown et al., 2002). All of these causes are preventable, and so when it comes to adolescent health, an adolescent's contact with a healthcare provider, for whatever reason, can be seen as an opportunistic time to address these matters. Risk-taking behaviors exacerbate the problems that may be faced during adolescence, and in some developing countries, work-related disability and mortality is an additional problem (Brown et al., 2002). When discussing adolescent health, much attention is frequently given to the problems that may be encountered such as risky behaviors. It is important to note, however, that it is only a minority of adolescents who are involved with serious problems as substance use, teenage pregnancy, and acts of violence (United Nations [UN], n.d.). Most adolescents actually go through this stage of life without much turbulence. It is a time when many adolescents gain personal growth, development, and independence and attain certain skills. Adolescence can and should be viewed as a time of opportunity.

Some of the problems that face adolescents differ depending on where they live. For example, substance use, eating disorders, and lack of exercise are more prevalent in developed countries. There are gender gaps when it comes to education, with generally more males attending secondary school in comparison to females. In fact, two thirds of children who never went to school or dropped out are girls. In South Asia, for example, 52% of boys but only 33% of girls are enrolled in secondary school. In contrast, girls in Latin America and the Caribbean have higher secondary school enrollment rates than boys, 56% and 52% respectively (UN, n.d.). This is important to address because the more education a girl receives, the more likely she is to postpone marriage and motherhood (UNICEF, 2011). It has also been found that knowledge and skills obtained through formal education is less advanced in students coming from developing countries in comparison to those students from developed countries (Nugent, 2005).

Reproductive health also varies across regions. Adolescent females are less likely to use contraceptives than adult women, and adolescent mothers are more at risk of developing complications related to pregnancy than adult mothers (Nugent, 2005). An adolescent mother is also more likely to drop out of school and be less educated than an adolescent female who has not become pregnant. Marital age has increased in many parts of the world, yet in some regions, child marriage (marriage by 18 years) continues to occur and is largely driven by 'poverty, parental concerns about premarital sex and pregnancy, and other economic and cultural reasons' (Nugent, 2005).

Because of these differences, a pediatrician's approach to the psychosocial history of an adolescent needs to be tailored to meet the needs of different regions/countries. Although we recognize each country, and sometimes different parts within the same country, may have their own unique issues, it is impossible to address matters of every single country. For this reason, in this chapter, we have decided to focus on some regions of the world and give an example of one country per region, though keeping in mind that this may not apply to every single country within the same region.

3. Developmental changes that occur during adolescence

Many changes occur during adolescence, the most obvious being the physical ones. Pediatric and other medical references tend to focus on these physical changes, and this information is readily available. For this reason, the physical changes that occur during puberty and adolescence will not be discussed here. Rather, the focus will be on the other developmental changes that occur: the cognitive and emotional changes. These develop more insidiously and health care providers may be less familiar with them. In addition, healthcare providers may be deceived by the physical appearances of adolescents which are not necessarily proportionate to their cognitive and/or emotional development.

3.1 Cognitive development

Adolescence is a sensitive and critical period for both normal and maladaptive patterns of development. This period was formerly described as the time of transition from concrete operational thinking to formal logical (abstract) thinking, including development in reasoning and judgment.

New perspectives emphasize that adolescent thinking is a function of social, emotional, and cognitive processes (Steinberg, 2005). There is growing evidence that the brain continues to mature throughout adolescence and into early adulthood (Gogtay et al., 2004). During this period, brain, behavioral, and cognitive development systems mature at different rates, causing adolescence to be a period of increased vulnerability and adjustment.

Two issues are especially relevant to understanding adolescent psychological development. First, brain development in this period is mostly in regions that have an important role in regulation of behavior and emotion and to the perception and evaluation of risk and reward. Significant changes include myelination and synaptic pruning, which increase the efficiency of information processing and enhance transmission of brain messages (Paus, 2005). Areas associated with more basic functions, including the motor and sensory areas,

mature in the early teen years, while the prefrontal cortex, the reasoning area of the brain and an important area for controlling impulses, emotions and executive functioning, appears to reach adult dimension in the early 20s, with girls developing earlier than boys (Geidd et al., 1999; Gogtay et al., 2004; Luna et al., 2010). Executive functions include the ability to inhibit impulses, weigh consequences of decisions, prioritize, strategize, long-term planning, decision-making, self-evaluation, self-regulation, and the coordination of affect and cognition. Second, changes in arousal and motivation brought on by pubertal maturation precede the development of regulatory competence (Blakemore et al., 2010). The brain's reward center, the ventral striatum, also is more active during adolescence than in adulthood.

This creates a gap between the adolescent's affective experience and the ability to regulate arousal and motivation. While the adolescent brain continues to strengthen its connections between reasoning and emotion related regions, each adolescent progresses at varying rates in developing their ability to think and their own view of the world.

Adolescent thinking becomes more multidimensional and they are better to contemplate hypothetical situations and the relationship between varied actions or decisions and outcomes, but decision-making remains susceptible to emotions.

Adolescent cognitive development can be characterized into 3 stages: early, middle, and late (Cromer, 2011; Radzik et al., 2007).

In early adolescence, the use of formal logical operations is mainly focused on schoolwork and in home environments. This includes questioning authority and societal standards. There is development of enhanced ability to verbalize thoughts and views, starting with those related to their life. These include choices regarding engaging in sports, peer groups, dress, and parental rules that adolescents think should be changed. At this stage, they may be unable to perceive long-term outcomes of current decision-making.

In middle adolescence, more complex thinking processes are used. The focus expands to include more philosophical and futuristic concerns. Middle adolescents tend to question and analyze more extensively in order to form their own code of ethics, identity, and possible future goals, which may begin to influence relationships with others. They may perceive future implications, but may not apply it in decision-making.

In late adolescence, complex thinking processes are used to focus on less self-centered concepts as well as personal decision-making. Adolescents may think about more global concepts such as justice, history, politics, and patriotism. They develop idealistic views on specific topics or concerns and may debate and develop intolerance of opposing views. They tend to focus on making career decisions and think about their emerging role in society. At this stage, they are able to think things through independently and weigh consequences before making decisions. Table 1 summarizes the cognitive changes that occur during adolescence.

Understanding cognitive development during this period is helpful in understanding age differences in judgment and decision-making, risk-taking, sensation-seeking, and also why adolescence can be a time of increased risk for the onset of a wide range of emotional and behavioral problems, including depression, violent delinquency, and substance abuse.

	Early adolescence	Middle adolescence	Late adolescence
Cognitive development	<p>Emergence of formal logical operations</p> <p>Focus on personal decisions, demonstrated in schoolwork and home environments</p> <p>May be unable to perceive long-term outcomes of current decision-making</p>	<p>More complex thinking processes used</p> <p>Focus expands to include more philosophical and futuristic concerns</p> <p>May perceive future implications of actions, but may not apply it in decision-making</p>	<p>Complex thinking processes used</p> <p>Focus on less self-centered concepts as well as personal decision-making</p> <p>Able to think things through independently and weigh consequences before making decisions</p>
Emotional development	<p>Peers are an increasingly important source of support</p> <p>Increased closeness of same sex interaction</p> <p>Increased need for privacy with increased interest in personal physical appearance and body image</p> <p>Increasing awareness of a wider range of emotions begins</p>	<p>Increased conflict with parents as peer group interest peaks</p> <p>Increased experience of a wide range of emotions</p> <p>Cognitive control over emotional responses limited</p> <p>Sensation seeking at its peak with increased risk taking behavior</p> <p>Increased sexual arousal with increased sexual activity and experimentation</p>	<p>Adolescent – parent communication improves</p> <p>Increased autonomy from parents</p> <p>Increased confidence in personal beliefs and ability to express them</p> <p>Improved cognitive control over emotional responses</p>

Table 1. Cognitive and emotional developmental changes that occur during adolescence

3.2 Emotional development

Adolescence has been quaintly described as “that awkward period between sexual maturation and the attainment of adult roles and responsibilities” (Dahl, 2004). It is a time of great change with concurrent but asynchronous physical, cognitive, and emotional development. Although most adolescents progress through this phase unscathed with gradual, appropriate changes, some may experience significant challenges. Adolescents experience many changes in how they interact with their family, peers, society, and themselves (Choudhury et al., 2006). They move from an idealistic opinion of parents during childhood, into increased conformity to peer group expectations and values, to the development of their own personal values and principles as they progress through early, middle, and late adolescence (B. Newman & P. Newman, 1999). This movement mirrors a shift in emotional support from family to peers and then to self and intimate partners. This is not to say there is or should be separation from the family, as healthy emotional development is highly dependent on continued positive interaction with parents throughout (Larson & Brown, 2007). However, there is gradual change until parents and the adolescent or young adult accept their individual roles and are able to share and challenge each others’ personal views and beliefs in a healthy way.

As previously mentioned, emotional and cognitive development are inextricably linked as brain development progresses throughout adolescence into early adulthood. Cognition has a significant impact on expression of emotions, and conversely emotion and situational contexts have a significant impact on adolescents’ behavioral choices (Steinberg, 2005). Emotional development during adolescence involves learning to recognize and master the control of emotions experienced so as to facilitate functioning within expected societal norms. Emotions serve many important functions including motivating positive behavior, achieving goals, providing information about self, and facilitating relationships, including intimacy (Larson & Brown, 2007). It involves self-discovery and self-characterization to acquire a specific role in society which is facilitated by the enhanced abstract thought acquired during adolescence. There is evidence to support an association between cognitive maturation and increased regulation of emotional behavior; however it has been proposed that these changes are non-linear unlike development during childhood and adulthood (Casey et al., 2010). The subcortical limbic system -including the amygdala is important in the processing of emotions and emotional responses to social stimuli, whereas the prefrontal cortex is responsible for the cognitive control or regulation of emotional behavior. An “Imbalance Model” has been put forward that proposes that an imbalance between the development of these two systems may be related to the development of psychopathology (Casey et al., 2010). Sensitivity to rewards seems to peak in adolescence and may have a positive impact, such as academic or athletic achievements or negative influence with thrill seeking through use of substances or other high-risk behaviors. This incentive response suggests behaviors may be defined from a motivational perspective, and the dorsal and ventral striata which receive input from the cerebral cortex have been found to be involved in these responses (Somerville & Casey, 2010). There is also a significant association between the pubertal stage of maturation and affective measures including sensation-seeking, sex and sexual arousal, emotional sensitivity, and sleep, with sensation-seeking peaking in middle adolescence (Steinberg, 2005).

High intensity emotions may also have a significant impact on adolescents' thought processes and by extension to their behavioral choices – these have been referred to as 'hot' and 'cold' cognitions (Dahl, 2004; Somerville & Casey, 2010). 'Hot cognitions' refer to thinking amidst high intensity emotions and often result in poor decision-making. 'Cold cognitions' refer to thoughts in a state of calm, more commonly resulting in appropriate decision-making. This may explain why the adolescent who is usually even-keeled may, under certain 'hot' circumstances, make an otherwise unexpected poor decision.

Healthy emotional development is a key developmental task for adolescents who are learning to negotiate increasingly complex and ambiguous social interactions and utilize lessons learned from previous experiences to assist in determining future choices. Discordance during this time of development may serve as the root of psychopathology. Adolescents who fail to learn how to modify their own emotions may become impulsive with progression to delinquent behavior or may become alienated both from peers and family, leading to parental conflict, relationship challenges, and an increased risk of depression, substance abuse, and suicide risk.

4. Interviewing the adolescent

Evaluation of an adolescent's psychosocial status is done through interview and may be an uncomfortable task for many healthcare providers. Because adolescents are generally the healthiest, contact with healthcare systems may be minimal; therefore, any contact should be considered an opportunity to obtain a psychosocial history and provide anticipatory guidance.

The literature available on the psychosocial interview of an adolescent is largely based on the North American experience. Even within North America, there are certain issues that need to be kept in mind based on the individual background of an adolescent, as will be discussed below. The psychosocial interview and history-taking in other parts of the world may vary from that conducted in North America depending on local norms, cultures, and existing or prevalent conditions. For this reason, three regions of the world, in addition to North America, will be presented below with particular focus given to one country per region. Unique issues and/or issues that are particularly relevant to that particular country/region will be emphasized in each section, in a manner that will be practical for a healthcare practitioner to utilize when providing care to an adolescent from the specified part of the world.

4.1 Interviewing the adolescent in North America

The HEADS acronym was introduced in North America (Goldenring & Rosen, 2004) to assist healthcare providers in obtaining a comprehensive adolescent psychosocial history in a sensitive manner and is seen by many to be universally applicable across the continent. It is important to remember that there is huge diversity in the adolescent population in North America, where right-wing fundamentalists, the descendants of African slaves, affluent youth, children of illegal migrant workers, rural youth, urban youth, and many others co-exist. Laws regarding consent and capacity vary, with many American jurisdictions allowing consent only to those over the age of 18 years, while many Canadian provinces have a functional definition that allows youth to give consent when they are capable of doing so.

Within all this diversity is a need to discuss basic psychosocial issues with children, adolescents, and youth. The original HEADS acronym now has many variations.

- *Home:* The vast majority of North American adolescents live with at least one parent. Careful questioning will elicit the family constellation, which may include grandparents, step-parents, siblings and step-siblings, and unrelated friends. Some young people may see a pet as being a member of the family. Questions must be asked in a way that allows for the teen to disclose that they are homeless, have difficult relationships, or have a non-traditional family, such as one with two fathers or two mothers.
- *Education:* Throughout North America, there is mandatory schooling, usually until age 16. Most young people continue through secondary education, which is usually grade 12 or age 18. Urban areas, particularly in the United States, have high rates of students who do not complete high school. If one asks a young person what their school performance is like, they all know that the correct answer is “fine” or “OK”. Specific questions about marks, the level of the courses they are taking (with much variation in terms of level of schooling offered), how much school they miss, and career goals are all important.
- *Eating:* Eating disorders are prevalent in North America, resulting in young people being both underweight and overweight. The current focus in schools and health systems on obesity focuses on the importance of being thin, which may be a trigger for anorexia nervosa or bulimia. More and more, eating disorders are being diagnosed in pre-adolescents, often associated with significant anxiety or anxiety disorders. Poverty is strongly associated with childhood obesity, with less nutritious foods being available and limited opportunities for safe exercise for those living in inner cities.
- *Activities:* Some North American adolescents are extremely active as athletes, volunteers, or workers. Working more than 16 hours a week often interferes with scholastic achievement. Some places require volunteer work for students to graduate from high school. Direct questions about screen time are essential, with many young people spending 5 or more hours a day in front of a computer or TV screen. Many are unaware of the dangers of revealing personal information on the internet to a legion of “friends” they have never met. Peer relationships should also be addressed, including questions about how the young person spends their lunchtime, if they see their friends outside of school, whether their parents allow them to have friends outside their religious or cultural group, and if there are discrepancies in the rules about friendship for boys and girls within a family.
- *Adherence:* Chronic health conditions are not uncommon in North America, with adolescents surviving with conditions that were previously fatal. Adolescents have many reasons for not taking medications—their family might not be able to afford them, they may see them as a sign that they are different from their friends, a chaotic household does not lend itself to the organization needed to be adherent, and mental health issues can interfere with the ability to regularly take medication. Medications that affect physical appearance, such as steroids, can be quite problematic for young people. Questions need to be asked in a sensitive manner without making assumptions about adherence and the importance placed on medications within a family.
- *Drugs:* Most drugs are readily available to North American youth. Alcohol is the most common substance used by youth, followed by marijuana and tobacco. Young people may respond well to being asked about drugs in their environment first, such as asking, “At your school, do students tend to drink more or take drugs?” You can then go on to

ask about their friendship group and finally to their own personal use. Experimental use is common, but questions should be asked about the impact of use on their academics, family relationships, and friendships. Young people should also be asked about their parents' use of alcohol, tobacco, and other substances.

- *Safety*: Adolescence is a time of risk taking, and this can lead to personal growth and a feeling of satisfaction. It can also have severe and even fatal consequences. Safety is an issue in recreation, work, driving, and social relationships. Asking about physical safety such as drinking and driving or the use of bicycle helmets is important, but so is social safety, including questions about bullying and sexual assault.
- *Suicide*: An easy way to start a conversation about mental health is to enquire about mood, "On a scale of 1 to 10, with 1 being so sad you might kill yourself and 10 being the happiest you have ever felt, how would you rate yourself today and in the last week?" Questions about sleep, appetite, energy, and concentration are very useful. Young people usually don't want to admit to anything that might sound like a mental illness, but are often quick to endorse high levels of stress, so exploring the stress in their lives can be a good way to find out about these issues. If a young person admits that they have been thinking about suicide, it is important to find out if this is an active thought, if they have made a plan, written a suicide note, or done anything else to make this a reality. Suicide risk should be taken seriously, and parents need to be brought into the discussion to prevent this disaster from happening. In the United States and in rural Canada, many families own firearms. These should be removed from the home if there is any concern about suicidality.
- *Sex*: About 50% of North American youth have had heterosexual sexual intercourse by the time they finish high school. In the United States, teen pregnancy rates are high and abortions may be difficult to access. Young people need to be asked about their sexual activities in a non-judgmental way that does not assume that they have or do not have a particular sexual activity and that are non-gendered. A young person who is homosexual might not be sexually active, and they are as likely to have heterosexual sex as their heterosexual peers. Young people may have sex but not be in a relationship, so questions about sex must include both questions linked to a partner and ones that are separate. The question, "Have you ever had sex with anyone?" can lead to a fruitful discussion

The adolescent psychosocial history in three different regions will be discussed below: the Caribbean, the Middle East, and South East Asia, with Jamaica, Saudi Arabia, and Thailand being an example country from each region respectively. For consistency and practical purposes, the HEADS acronym will serve as a guide for the psychosocial interview in each region, with differences or variations in the acronym emphasized. The sequence of the topics addressed may vary depending on local sensitivities or significance. It is important to bear in mind that the reported experiences (unless otherwise referenced) are based on the authors' local experiences. Also keep in mind that some differences may apply to countries within the same region, and therefore it is important for one to familiarize himself with conditions or behaviors that may be particularly prevalent in a specific country.

4.2 Interviewing the adolescent in the Caribbean

Jamaica is the largest English-speaking Caribbean island, situated in the northern Caribbean Sea and is classified as a developing country with an upper-middle income economy by the

World Bank (The World bank, 2011). Adolescents aged 10-19 years account for almost 20% of the total population, with 10-24 year olds representing 27% of the population (Statistical Institute of Jamaica, 2011). Similarly, adolescents 10-19 years represent one-fifth of the total population in the Caribbean (Crawford et al., 2009). In Jamaica, pediatric services in the public health system stop at age 12 years; thereafter care is transferred to adult-centered services. In the past decade, the Ministry of Health has increased its focus on adolescent health care with the promotion of the adolescent friendly approach in health centers. There are currently no national guidelines for adolescent health care in Jamaica, and the practice of preventive health care for adolescents is at a less than optimal level (Harrison et al., 2011). A minority of physicians recommend regular health maintenance visits for adolescent patients, and so screening for potential health concerns should be performed at any visit, whether for acute or well care (Harrison et al., 2011).

Culturally, parents continue to assume primary responsibility for their adolescent's health care and usually accompany them for health visits or send an older family member. Some physicians report parents limiting access to teens for confidential discussion (Harrison et al., 2011), however with appropriate explanation of confidentiality policies to parents and adolescents together, confidential discussion with the adolescent is usually possible. It is most helpful to introduce the concept to parents as time alone with a health professional being an opportunity for adolescents to start accepting responsibility for their own health care. The provider's office should be promoted as a 'safe-place' for discussion of any concerns affecting an adolescent's health- physical, emotional, psychological, and not a place to "just talk about sex and drugs". Of course, it is appropriate that parents be kept 'in the loop' with regard to their adolescent's care, and once assured of this, most parents and adolescents seem to welcome confidential discussion with the health provider.

Many of the public healthcare facilities in Jamaica are understaffed, and this significantly impacts the time available for appropriate discussion with adolescents and parents. The well recognized psychosocial history acronym, HEADS, used widely internationally, was created to accommodate for this challenge. However in a recent survey, a minority of physicians in Jamaica reported being aware of HEADS, and as such, exposure to and training in the use of HEADS is being expanded for Jamaican physicians through continued medical education efforts.

As would be expected for any other cultural setting or geographic region, the tool has to be modified to be culturally sensitive for the specific population. Some of these modifications will be briefly discussed below.

- *Home:* Jamaica and many other Caribbean countries are matriarchal societies and have varied family units, including married, common-law, visiting, and single, with the most prevalent in Jamaica being the common-law marital relationship (UNICEF, n.d.). A positive male influence is therefore frequently absent, and the details as to how this affects the adolescent and the family in general, need to be explored. Many children and adolescents are also left in the care of extended family, as parents go overseas to seek employment, planning to support their family through remittances. Detailed information on household members and shared households must be taken including the level of supervision, age and gender of other household members or caregivers. The provider also needs to enquire about the frequency and quality of interaction with

parents (verbal and/or physical), as there may often be concerns surrounding separation issues, family conflict, and safety within the home, with the resultant externalizing and internalizing behaviors in the adolescent.

- *Education/ Employment:* Similar to other countries, physicians need to enquire about the grade currently attained in school, whether the adolescent attends school, what grades they are getting, and whether they have been suspended or otherwise disciplined. In Jamaica, most adolescents attend public high/secondary schools (grade 7-11) with a student:teacher ratio of approximately 35:1. Adolescents with specific challenges or needs, such as those with Attention Deficit Hyperactivity Disorder (ADHD) or learning disorders, may go unnoticed in schools, and therefore physicians should enquire about these issues during health visits with adolescents. Another concern in Jamaican schools is bullying, which has recently started to receive more attention both from school administrations as well as in the public domain. Culturally, mild bullying has often been dispelled with the view that it is “just toughening you up”, and “those little things should not bother you”. More serious bullying is often settled on an individual basis with physical retaliation, as the culture is one that promotes the concept of “standing up for yourself”. However some adolescents do not cope well with bullying, and physicians therefore need to ask questions about bullying, including physical, emotional, and relational bullying, in a sensitive manner. For example “Does anybody at school say things to you that bother you?”, “Do you feel like you fit in or do people ignore you?”, or “Does anybody force you to do things you don’t want to... send you to buy lunch without giving you money?” A balanced approach is important when assessing for potential bullying as Jamaicans are a people who oftentimes speak bluntly, frequently not utilizing the Westernized social graces of saying things in a ‘politically correct way’. Law mandates secondary level education in Jamaica; however, some adolescents may simply advance through the education system without actually acquiring the expected knowledge and skills. Ultimately, these adolescents leave school being unprepared for the adult work force with some becoming street youth with exposure to the attendant risks. Vocational/employment challenges are common as there are limited job opportunities for adolescents. As a result, some adolescents, particularly within ‘inner city’ societies, are wooed to establish an illegal lifestyle, joining ‘gangs’ and associating with ‘area leaders or dons’ in an attempt to make an easier living. These concerns have to be carefully asked about as many of these adolescents will not admit to being involved with illegal activity, however may respond in the positive if asked “Are any of your friends or other young people in your community linking up with gangs?”
- *Eating:* Anecdotally, there is limited awareness of disordered eating behaviors and attitudes in Jamaica both by lay persons as well as healthcare providers. Culturally, eating disorders have not been considered a problem in the society as a desire for the ‘voluptuous’, ‘thick’, ‘full-bodied’ woman has always been thought to be protective against body image concerns that focus on achieving low weight. However, national surveys have identified that Jamaican adolescents engage in disordered eating behaviors (DEB) (Fox & Gordon-Strachan, 2007), and a cross Caribbean survey found that although the prevalence of DEBs was less in the Caribbean than in North America, the use of extreme weight control measures was greater among Caribbean adolescents (McGuire et al., 2002). In clinical practice, the prevalence of DEBs anecdotally appears to

be increasing among Jamaican adolescents, perhaps due to increased globalization and internalization of the Westernized 'thin ideal'. Conversely, there is significant concern and more awareness about obesity in Jamaican adolescents (Wilks et al., 2007), secondary to increasingly inappropriate nutritional intake, fuelled by many popular fast-food restaurants. There is also limited emphasis being placed on physical exercise, including the removal of scheduled sessions for physical exercise in schools after grade 9. Additionally, there is limited access to safe outdoor spaces to facilitate exercise in some neighborhoods.

- *Activities:* Enquiring about activities engaged in, who time is shared with, and ensuring that adolescents have at least one trusted friend, referred to locally as a 'bredrin' or a 'bonafide' is important. Jamaican adolescents are technologically savvy, especially when Jamaica is still considered to be a developing country, with the vast majority of adolescents owning a mobile phone or having easy access to computers and the internet, often times with limited supervision. It is therefore important for providers to enquire about total media time to ensure this is not interfering significantly with schoolwork. It is also important to enquire about internet safety practices, for example "Do people you don't know try to 'friend' you... Do you accept people you don't know as friends?" Providers need to take the opportunity to reinforce positive practices and give appropriate advice, for example, "Be careful what pictures you send to your boy/girlfriend since you don't know what they'll do with them if you break up... Once the picture is out on the web, you can never get it back". Due to the small size and population of the Caribbean countries, it is particularly important to enquire about and advise against disclosing personal information online.
- *Drugs:* The local law states that substances such as cigarettes and alcohol are illegal for use in persons under 18 years. Monitoring and the consequences for sidestepping these are minimal and it is not difficult for 'under age' adolescents to access alcohol and cigarettes, with it being almost normative for many adolescents. However the level of binge-drinking among Jamaican adolescents is significantly less than that noted in North America. This more relaxed attitude towards use of these substances is pervasive and therefore health providers must ensure to enquire not only about use but also frequency and in particular, high risk behavior including driving under the influence. Initial questions should be more general, enquiring of friends and then becoming more specific: "Do you drink any alcohol, like beer or Smirnoff ice?", as many young people don't consider these 'real liquor'. There is generally little difficulty in acquiring marijuana although it is illegal in Jamaica. Many Jamaican adolescents do not think of marijuana as a "real" or "serious" drug. Additionally, many local musical artists identify with the Rastafarian faith which includes the use of marijuana as a part of their spiritual experience. A balanced harm-reduction approach with a gradual move towards abstinence is therefore most likely to be effective in cases of marijuana use by adolescents.
- *Sex and sexuality:* Jamaica, is a predominantly Christian country, and in many aspects a very religious society. This serves as a stabilizing and positive force in many adolescents' lives, and during the interview, enquiry into their level of involvement in church activities and how their religion informs their personal beliefs and practices is appropriate. However, religiosity can also have a negative impact, and Jamaican adolescents have reported the fear of contradicting church expectations as reasons for not seeking information from adult caregivers or accessing appropriate contraception

(Crawford et al., 2009). The age for consenting to sexual activity in Jamaica and the majority of the English-speaking Caribbean is 16 years, however the mean age for sexual debut is 13.5 years for males and 16.1 years for females (Jamaica Family Planning Board and Division of Reproductive Health, Centers for Disease Control and Prevention, 2008). The "Access to Reproductive Health Care Policy" guideline allows for the use of non-invasive contraceptives for adolescents who present for care and are unwilling to practice abstinence, however many health providers are still uncomfortable with this practice (Crawford et al., 2009). Many adolescents experience significant pressure to become sexually active from peers and the media, with a vibrant dancehall music culture that normalizes casual sex (Crawford et al., 2009). Discussion about adolescents and sexual activity is still considered taboo, and so health providers may have to first enquire about friends' sexual activity and then segue into the adolescent's personal activity, facilitating age-appropriate advice and care. Much of the local music and media promote men having relationships with multiple women, and many adolescent females feel that they cannot expect a monogamous relationship even though that is most times their preference. Healthcare providers therefore need to enquire of the power shift in relationships and if this is resulting in an unhealthy relationship. They may ask "Does your boyfriend refuse to wear a condom even if you ask?" or "Does your boyfriend get very jealous and check your phone calls or text messages?" It is not uncommon for young women to know that they are not the only sexual partner for someone but to still feel unsure of demanding condom use when the male partner argues against this. Female adolescents need to be empowered to make these demands by improving their concept of self-esteem and self-worth, if even to ensure they know how to put on the partner's condom. Jamaica is a very rigid society with regard to its approach towards homosexual orientation. Although often described internationally as a 'homophobic' society, Jamaicans in general have been found to be quite tolerant of homosexuality unless it 'directly' affects them. Though there is much homophobic rhetoric, many adolescents can identify at least one friend or schoolmate whom they think is homosexual and are not at odds unless specifically asked to say they are in agreement with homosexual relationships. This is felt to stem from a deep religious belief within the society that homosexuality is wrong. Although figures among adolescents are limited, and if available, likely to reflect underreporting (Crawford et al., 2009), anecdotally the prevalence of adolescent homosexual activity seems to be increasing. Healthcare providers must therefore care for their adolescents in a non-judgmental manner and enquire of adolescents' orientation and sexual history.

- *Safety:* In Jamaica, the prevalence of violent crimes is very high, and many of these are committed against and by adolescents including sexual offences, assault, and even homicides (Harriott, 2008). There are many neighborhoods that are unsafe with adolescents in these areas being under the added pressure of daily safety concerns. These concerns expand to some schools where students may carry concealed weapons as well. Questions such as "Do you feel safe in your home...school...community?" can be very revealing and the platform for further evaluation. Sexual safety may also be of concern as sexual offences are committed most frequently within the home or community. Questions such as "Has anyone ever touched you or done anything sexual to you that you did not want or like?" may be the only opportunity an adolescent has to discuss abuse.

- *Suicide*: Jamaican society is not one that generally embraces mental health treatment or mental health challenges as a viable diagnosis in many cases. This underscores the importance of screening for these concerns in teens who often have no one to freely discuss such things, for example mood disorders. However given the many challenges that adolescents face, it should be expected that at least a few are at high risk for significant psychopathology or the use of inappropriate coping strategies resulting in internalizing and externalizing behaviors. Many parents underestimate the effect of stressful changes on their adolescents, including separation from parents whether through death, even if by violent means, or migration and often do not seek professional help, albeit a somewhat scarce resource.

Jamaican adolescents face many challenges, a few unique to the local culture, but are also resilient, often going from a start with limited resources to becoming world renowned and respected figures.

4.3 Interviewing the adolescent in the Middle East

Population growth in the Middle East continues to be above the world's average. The most rapid growth of the overall population of young people in the region has been witnessed resulting in the "youth bulge" (Assaad & Roudi-Fahimi, 2007). Despite the significant numbers of adolescents, there continues to be lack of dedicated adolescent healthcare services in the Middle East. Similar to Jamaica and other parts of the Caribbean, in most parts of the Middle East, the age limit of Pediatrics is 12 years. Thereafter, individuals in their early adolescence are transferred to adult healthcare. This in part has to do with the cultural concept that once a young male or female has physical signs of puberty, he or she is assumed to be an adult. Years ago, the appearance of such signs signified that one was ready to enter a marital relationship and begin childbearing. In recent years, education has significantly improved, and secondary school enrollment rates have increased (Assaad & Roudi-Fahimi, 2007). This is especially true for females and has resulted in women pursuing higher education and delaying the onset of marriage and childbearing (Assaad & Roudi-Fahimi, 2007). Because of the changes seen in society, many in the Middle East have recently become aware of the changing needs of young individuals, and the term 'adolescent' or 'muraḥiq', in the Arabic language, has become more widely used. *Muraḥiq* used to previously have negative connotation to it, meaning that someone was still immature. In recent years, it has become a more socially acceptable term that correctly refers to the transitional period between childhood and adulthood.

Countries are recognizing the changing needs of adolescents and their impact on the economy and future of nations. In some Middle Eastern countries, investments in the education and health sectors, as well as providing more job opportunities for the young have been the focus in the new Millennium. When it comes to healthcare, most have not adopted any changes with regards to the age limits of Pediatrics practice, however, some institutions in the region have independently taken on the decision to increase the age limits to 14 years (Al Buhairan, 2010), and some are even discussing further increase.

Strong family ties generally exist in the Middle East, young individuals have close relationships with their family members, and respect of the elderly is a given. Young individuals are expected to continue to live at home with their families (sometimes extended

family) until they get married; some even continue to live with their families after marriage depending on the family structure and possible financial matters.

When an adolescent male or female requires a health visit, it is the norm to be accompanied by a parent or older sibling. Health conditions are discussed in front of both adolescent patient and accompanying family member. This is not to say that adolescents do not keep certain information away from their parents or family members, but rather that it is culturally expected that parents have the right to know everything about their adolescent son or daughter. Interviewing an adolescent independently is foreign. However, when done, parents and adolescents have viewed it quite positively. When the healthcare provider explains to the family that he or she would like to talk to the adolescent patient independently because it is an opportunity for the young individual to begin to take on responsibility of his or her health, families are appreciative. Families also tend to appreciate the fact that an adult is willing to spend time and talk to the adolescent son or daughter, as some parents are sometimes unsure of how to address certain issues and know that the adolescent may not be sharing everything with them.

When it comes to consent taking, policies are institution based. Some policies state that the age for consent is 15 years, based on the fact that most males and females have developed pubertal signs by then and are therefore considered to be 'adults', while other institutions state that 18 years is the age for consent. This applies to consent for management or treatment of any sort of health condition. Confidentiality issues, therefore, lie within the constraints of consent policies.

As for the specific psychosocial history taking of a Middle Eastern adolescent, different points may need to be addressed and/or similar points may need to be addressed differently based on the specific country or even part of a country that the adolescent comes from. Though there are many cultural similarities between the different Middle Eastern countries, there are also some differences that exist. For the sake of the psychosocial interview, the information provided below is based on experience with adolescents from Saudi Arabia. The information may very well apply to adolescents from neighboring Arabian Gulf States, such as Bahrain, Kuwait, Oman, Qatar, and the United Arab Emirates, since culturally they are very similar. There may be certain conditions or practices that may be more prevalent in some of the other Middle Eastern countries, so it is recommended that each pediatrician familiarize himself with those matters based on the adolescent population he serves.

HEADS can be applied to Middle Eastern adolescents, with certain points to be kept in mind or specific modifications to be applied as outlined below:

- *Home:* It is necessary to be very specific in asking who lives at home with the adolescent, including extended family members and domestic helpers. When asking about one's relationship with family members, one should go beyond asking, "How would you describe your relationship with...." and ask "When something is bothering you, can you talk about it with your ..." or "Who do you speak to when something is bothering you or you need to discuss a personal matter?" Polygamy is seen in some families, so asking if the father is married to more than one wife is important, as is asking about the presence of half-siblings. If the adolescent comes from a polygamous family, further questions regarding the living accommodations and paternal relationship with the adolescent and his/her full and half siblings should be pursued.

- *Education*: When asking about school performance, it is important to ask about changes in school/academic performance over the past year. Asking about one's relationship with peers at school is also important, including history of bullying (whether one is a victim or the offender), as this is often overlooked. Do not assume that all adolescents are enrolled in school. Even though some countries have laws for mandatory schooling for children and adolescents, these laws are not necessarily enforced. Adolescents with special needs are especially at risk of not being enrolled in school.
- *Eating*: Eating disorders, such as anorexia nervosa and bulimia nervosa, are not prevalent in the Middle East; however, this may be changing with the effects of globalization. There is also a lack of awareness of these conditions, so under-diagnosis may be another factor affecting the actual prevalence rates. Obesity, on the other hand, is a common condition with prevalence rates increasing over the years (El-Hazmi & Warsy, 2002). Fast food restaurants have infiltrated societies that were previously known to have healthy diets. Furthermore, the heat in many parts of the Middle East often precludes outdoor activities and exercise.
- *Activities*: Finding out who the adolescent spends time with during recreational or extracurricular activities is important; is it friends from school, the neighborhood, or extended family members? Some families may not allow their sons, but maybe more so their daughters, to spend time with their school friends outside of school hours; they may be expected to spend their time with their cousins or other family members. Technology has swept across the Middle East as it has globally. Time and activities spent on the Internet, including online chatting and cyber bullying should be asked about.
- *Drugs*: In some Middle Eastern countries, tobacco use is common among adults, and adolescents may be frequently exposed to family members who smoke. Tobacco use includes that found in cigarettes as well as sheesha (narghile or hookah). Sheesha use has gained increased popularity in the Arab world over the past two decades and has attracted adolescents and young adults to the extent that it has been declared a public health problem by the WHO (Martinasek et al., 2011). Other substance use, including alcohol, marijuana, and amphetamine use, attracts social stigma, and such a matter is not discussed openly. Directly asking about drug use may be considered offensive by some, as they may think that you assume that he or she is involved in substance use. This is considered to be a very sensitive topic, and so the pediatrician may decide to start off by asking about tobacco use among peers. Such a question may be posed: "Some individuals your age may be smoking; do you know if any of your peers are smoking?" This can then be followed by "Have you ever tried smoking?" and depending on the response you get, follow this by more questions related to smoking. Sheesha use should be asked about even if the young person denies cigarette smoking. After addressing tobacco, one should go on to address alcohol and other substances in a similar fashion. The substances that adolescents may be most exposed to in the Arabian Gulf States are cannabis (including hashish) and amphetamines. Captagon is a synthetic stimulant that is available and is abused and should be asked about. Certain areas have prevalent use of khat (or gat), an amphetamine-like stimulant that is usually chewed. Sniffing solvents and other materials should also be included in this section of the psychosocial history.
- *Safety*: Motor vehicle accidents are a significant cause of death among adolescents in this part of the world. Seat belt use has only been recently enforced in some countries, but nonetheless, lack of using them is not unusual. In countries with vast deserts and

sand dunes, recreational activities, such as sandboarding and others that involve motorbikes or four wheel drive vehicles, are often engaged in, and enquiring about safety measures pertaining to these should be included.

- *Suicide*: As in other parts of the world, adolescents in the Middle East are at risk of developing depression. Regularly asking about one's mood should be done during the psychosocial history taking. This can be done in a manner similar to that described previously with adolescents in North America. Many healthcare providers are uncomfortable asking about suicidal ideations or acts, and suicide is again another stigmatizing matter in the Middle East. However, when adolescents have been directly asked about this, they tend to respond honestly; for some, it has appeared that they were actually relieved that someone had finally opened this subject matter, as it is a very difficult matter to discuss.
- *Sex*: Sexuality and sexual activity are topics that are culturally inappropriate to address with most Middle Eastern adolescents. Young people have insufficient access to information on these matters, and in the few areas where educational curricula contain sexual and reproductive health, teachers often skip relevant sections because they are uncomfortable or embarrassed to teach them (DeJong et al., 2005). Sexual activity prior to the onset of marriage is unacceptable and regarded as shameful. Those adolescents that have engaged in some sort of sexual activity tend not to talk about it or discuss it freely, as it is considered taboo. The exceptions to bringing up sexuality issues more openly during a health care visit include the following: 1) an adolescent who has been exposed to any sort of abuse (asking specifically about sexual abuse is considered to be appropriate), 2) an adolescent who is involved in risky behaviors, and 3) a married adolescent.

4.4 Interviewing the adolescent in South East Asia

In Thailand, adolescent medicine is a relatively new field, and the psychosocial history and assessment is not consistently done during each adolescent visit. This may be due to lack of training and exposure to the field, the overwhelming ratio of physicians per capita, and also the healthcare provider's personal thoughts and attitudes towards conducting the psychosocial history itself. A survey conducted in a training institute in Thailand indicated that one third of the pediatric residents were not familiar with the HEADS acronym, one fourth were not confident in conducting a psychosocial assessment, and 7% had never conducted the assessment prior to exposure to adolescent medicine (Areemit, In Press).

Thailand is a newly industrialized country, undergoing many changes. The number one cause of death for adolescents (age 13-18 years) is accidents, while child birth (23.7%) is the leading causes of hospital admissions (The Royal College of Pediatricians Thailand [RCOP], 2009). There are both nuclear and extended families; parents and relatives tend to be more involved in an adolescent's life and are commonly present at hospital visits. Depending on the institution, pediatricians see children until they are 15-18 years. Asking permission to interview the adolescent alone is not yet a part of regular practice. Without adequate approach, parents and adolescents may misinterpret this as an indication that the healthcare provider thinks there is something "wrong". Difficult encounters with the parents or the adolescent may be anticipated while asking for permission to conduct a psychosocial interview in private. However after establishing rapport and showing interest in the

parents' and adolescent's issues, advocating that this is a part of a regular adolescent visit and that the adolescent can learn to discuss his or her own issues with the healthcare provider as an appropriate way of development and establishing confidentiality, interviewing adolescents independently has been found to be more welcome than anticipated. Providing confidential health care for adolescents themselves is more of an issue, especially as laws only provide confidential care for adults (18 years or older). In this situation, adolescents are given confidentiality with limits regarding issues that may harm their health or somebody else's health. Healthcare providers then have to use their own judgment as to what can be kept confidential. Having said that, most issues that cannot be kept confidential will have to be discussed with the adolescent regarding appropriate care needed and how this will be addressed with the parents.

The sequence in conducting a HEADS assessment may differ slightly; when there is no urgent presenting issue around sexuality, this topic is preferably kept until the end of the interview. This is because sexuality is a very personal and private issue in Thailand, rarely discussed with adolescents, and may be considered impolite.

Discussed below are some pertinent issues for conducting a psychosocial interview for adolescents in Thailand.

- *Home:* It is not uncommon for parents to migrate from rural neighborhoods to big cities in order to earn more income. Twenty percent of children and adolescents live with their grandparents or relatives (National Statistical Office (NSO) Thailand, 2008), while the family may reunite only twice per year. This can have positive or negative effects, depending on the quality of care given. Positive effects include closer care by relatives when compared to the hard working parents who may have insufficient time. In an extended family, an adolescent may also have a wider range of adults who can be a source of support. However, this is not always the case for those who have low economic status, come from disrupted families, or are living with elderly or ill grandparents who do not have sufficient resources and energy that may be required for an adolescent. Co-sleeping or sharing the same bedroom with the care giver (parents or grandparents) is common practice. Though adolescents will eventually want privacy, many share their room with parents, grandparents, or siblings, especially when there is insufficient space within a house.
- *Education and Employment:* Usually, the parents and family financially support an adolescent/young adult until/if they complete education at the college/university level. Unless work is far from home, he or she is expected to live with the family until married and for some, even afterwards. If not working, the adolescent can help out in the house, thus moving out, getting a job, and living by themselves may not be a necessity. The secondary school attendance rate is 77.6%. The main reasons for not continuing secondary school are: achieving a certain degree of education already and economical issues. Most adolescents who do not continue secondary school will enter the workforce (49%), help with the family business (24%), look for a job (10%), or just stay at home (8%) (NSO, Thailand, 2008). Though there is a mandatory requirement to complete 9 years of school, there is insufficient data regarding the quality of education that adolescents receive. It is noted that some adolescents that have difficulties in school are allowed to pass through grades without sufficient evaluation and support for learning disabilities, attention deficit disorder, or other mental health issues. These

adolescents may have lower opportunities for employment (NSO, Thailand, 2008). When interviewing about education, in addition to the open ended non-judgmental approach, it is very reasonable to ask specifically about attending school, grades/changes in grades, and the school environment.

- *Eating, Body Image and Exercise:* Adolescents can be especially prone to hazardous eating behavior and unhealthy nutrition choices. Though a regular diet consists of 3 meals per day, meals and snacks tend not to be as structured as in Western countries. There is a wide variety of eating behaviors depending on lifestyle and the demand of one's everyday life. Skipping breakfast, having breakfast as the only meal of the day, having 4 meals including a late night meal, or snacking throughout the day may be normal for some. In addition, some individuals have religious and spiritual reasons to have only one meal per day. Eating disorders have been reported, but are uncommon in Thailand possibly due to a low prevalence or under detection (Limsuwan, 1983). On the other hand, the prevalence of obesity has increased from 6% in 1995 to 22% in 2008 (RCOP, 2009), and dieting is common among Thai adolescents (Aekplakorn & Mo-suwan 2010; Page & Suwanteerangkul, 2007). The media and peers play a major role in the formation of an ideal body image (Thianthai, 2006). Currently, K-pop (Korean pop) and J-pop (Japanese pop) are two popular trends (Winn, 2010). These trends portray adolescent girls, with small physique, white glowing skin, and big eyes. This has resulted in use of cosmetic contact lens to make the cornea look larger and/or change eye color, and complications found are associated with poor hygiene and below standard production of the contact lenses. Fake orthodontic braces worn to look young and wealthy has been associated with heavy metal intoxication. Skin whiteners, popular among adolescent girls and women, can pose toxic risks.
- *Activities:* Many adolescents in the school system in large cities use their spare time, up to 18 hours/week, to attend extracurricular academic school in order to achieve and get high scores on the national examination for university entrance. Others may participate in motorcycle gangs that race on public streets and highways in the night. These gangs may engage in other high risk behaviors such as alcohol use, other substance use, and unprotected sexual intercourse. Sixty nine percent of Thai children and adolescents use computers and have internet access. Of this group, 21% use it to play games including online games (RCOP, 2009). In areas where the internet is easily accessible, some internet cafés that are close to schools even provide clothes for students in school uniforms to change into.
- *Drugs:* Common drugs used are tobacco, alcohol, and amphetamine (NSO, Thailand, 2007; RCOP, 2009). Wood alcohol (methanol) can be found especially in areas near the northern, northeastern, and eastern borders of the country; teens should have information about this in order to avoid complications such as blindness. Other cosmetic medications that are used are macro-micro nutrient protein supplements for white glowing skin or for muscularity. There is usage of glutathione injection in order to have the glowing clear and fair looking skin. Herbal coffee is commonly used for dieting.
- *Suicide and mood:* Five to eight percent of Thai adolescents have been found to have depressive symptoms, and 1.1% have tried to commit suicide (RCOP, 2009). Due to culture, Thai adolescents may not be as verbal and may feel pressured to keep their feelings inside. Some may find it hard to verbalize their mood and emotions, especially negative ones; on the contrary, when asked in an appropriate manner, suicidal ideation can be discussed more openly.

- *Safety*: Though there are laws regarding helmet and seatbelt use, these are more strongly implemented in major cities, not in the rural areas. Thirty eight to eighty percent of Thai adolescents who drive motorcycles do not wear helmets, 14-45% do not wear seat belts, 18-32% were in a vehicle in which the driver had consumed alcohol, and 13-21% had consumed alcohol and driven a vehicle themselves (RCOP, 2009). There are drivers who drive without a driver's license. Helmets are mostly worn to avoid a penalty rather than for one's safety.
- *Sex*: Sex is a very personal and private issue; it is rarely discussed with adolescents, and can even be considered impolite. A study found that there are restrictions imposed by traditional culture and that sex education is not regarded as parental duty. The generation gap and 'better not bring it up' were the limitations in providing sex education by parents (Sridawruang et al., 2010). The majority of sexual education is taught in secondary school, most of it acknowledging the physical changes of puberty, sexually transmitted infections, and HIV. The psychosocial events that may occur during puberty are not yet widely addressed. Premarital sex is generally not accepted; there are double standard attitudes towards premarital sex, where it is acceptable for men but unacceptable for women. More adolescents (18%) are having sexual intercourse with only 14% using contraception. With lack of knowledge, misconceptions, and difficult access to low cost contraception, the teenage pregnancy rate has increased from 10% in 2001 to 15% of all pregnancies in 2004 and has become an issue for the country. It is considered very shameful for the unmarried adolescent girl and family, leading to late detection and complications. These pregnancies result in abortion (20-30%), continuation of the pregnancy and keeping the baby (60%), or continuation of the pregnancy but leaving the baby at the hospital for adoption (10%) (RCOP, 2009). Of those who continue the pregnancy, a majority will marry the baby's father, some will continue to be a single mother, and for others, the grandparents raise the baby as a child of their own. Thailand's HIV prevalence has been stable at 1.4 per 1000 since 2005; however 11% of the HIV positive cases are adolescents and youth aged below 24 years. This group is thought to be the majority of newly infected people each year (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2009). When interviewing about this topic, the healthcare provider should ask for permission to ask some more personal questions. With a health promotion approach, questions about physical changes can be addressed first, followed by psychosocial changes including sexual identity. Sexual activity and high-risk behaviors should be addressed by asking about the adolescent's friends' experiences or common themes in the media first, then probing further as needed.

5. Conclusion

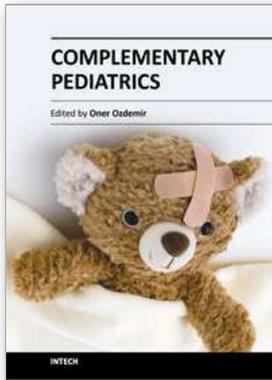
Adolescence is a dynamic stage of life, with so many changes occurring. Adolescents are a significant part of any country's population and much focus and attention on their needs is required, as they impact a country's health, social, economic, and political status. With the rapid global changes and advancement in technology, adolescents are often 'caught between tradition and progress' (United Nations, n.d.). However, among adolescents globally, there are more similarities than there are differences, and as healthcare providers, we can increase the number of adolescents that achieve health and success by optimizing their care, identifying their challenges, and finding resolutions, in addition to recognizing and promoting their positive attributes and intrinsic resilience.

6. References

- Aekplakorn, W. & Mo-suwan, L. (2009). Prevalence of obesity in Thailand. *Obes Rev*, 10:589-92
- Al Buhairan, F. (2010). Healthcare providers' opinions of adolescent healthcare in Saudi Arabia. Society for Adolescent Medicine Annual Meeting Program Issue, *J Adol Health*, 46(2):s11
- American Academy of Pediatrics (1978). *Report by the task force on pediatric education. The future of pediatric education*, Evanston, USA
- Areemit, R. (In press). Adolescent health care: attitudes and clinical practice of pediatric residents in a University Hospital in Northeast Thailand. *Proceedings of the 27th Faculty of Medicine annual conference: New trends in health care*, Khon Kaen, Thailand, October 2011
- Assaad, R. & Roudi-Fahimi, F. (2007). Youth in the Middle East and North Africa: Demographic opportunity or challenge?, In: *Population Reference Bureau*, Accessed August 2011, Available from: <http://www.prb.org/pdf07/YouthinMENA.pdf>
- Blakemore, S., Burnett, S., & Dahl, R. (2010). The role of puberty in the developing adolescent brain. *Hum Brain Mapp*, 31:926-33
- Brown, B., Larson, R., & Saraswathi, T. (2002). *The world's youth*, Cambridge University Press, ISBN: 978-0-521-00605-7, New York, USA
- Casey, B., Jones, R., Levita, L., Libby, V., Pattwell, S., & Ruberry, E. (2010). The storm and stress of adolescence: insights from human imaging and mouse genetics. *Dev Psychobiol*, 52(3):225-235
- Choudhury, S., Blakemore, S., & Charman, T. Social cognitive development during adolescence. (2006). *Soc Cogn Affect Neurosci*, 1(3):165-174
- Crawford, T., McGrowder, D., & Crawford, A. (2009). Access to contraception by minors in Jamaica: a public health concern. *North Am J Med Sci*, 1(5):247-255
- Cromer, B. (2011). Adolescent Development, In: *Nelson Textbook of Pediatrics* (19th ed.), Kliegman, R., Stanton, B., St. Geme III, J., Schor, N., & Behrman, R. Saunders, Philadelphia, USA
- Dahl, R. (2004). Adolescent brain development: a period of vulnerabilities and opportunities. Keynote address. *Ann N Y Acad Sci*, Jun;1021:1-22
- DeJong, J., Jawad, R., Mortagy, I., & Shepard, B. (2005) The sexual and reproductive health of young people in the Arab countries and Iran. *Reprod Health Matters*, 13(25):49-59
- El-Hazmi, M. & Warsy, A. (2002). The prevalence of obesity and overweight in 1-18-year-old Saudi children. *Ann Saudi Med*, 22(5-6):303-7
- Fox, K. & Gordon-Strachan, G. (2007). *Jamaican youth risk and resiliency behavior survey 2005: school-based survey on risk and resiliency behaviors of 10-15 year olds*. Accessed September 2011, Available from: <http://www.cpc.unc.edu/measure/publications>
- Giedd, J., Blumenthal, J., Jeffries, N., Castellanos, F., Liu, H., Zijdenbos, A., Paus, T., Evans, A., & Rapoport, J. (1999). Brain development during childhood and adolescence: a longitudinal MRI study. *Nat Neurosci*, 2(10): 861-3
- Gogtay, N., Giedd, J., Lusk, L., Hayashi, K., Greenstein, D., Vaituzis, A., Nugent III, T., Herman, D., Clasen, L., Toga, A., Rapoport, J., & Thompson, P. (2004). Dynamic mapping of human cortical development during childhood through early adulthood. *Proc Natl Acad Sci U S A* ;101(21):8174-9
- Goldenring, J. & Rosen, D. (2004). Getting into adolescent heads: An essential update. *Contemp Pediatr*, January 2004;21:64

- Harriott, A. (2008). *Bending the trend line: The challenge of controlling violence in Jamaica and the high violence societies of the Caribbean*, Arawak Publishers, Kingston, Jamaica
- Harrison, A., Pierre, R., Gordon-Strachan, G., Campbell-Forrester, S., & Leslie, K. (2011). Adolescent health screening by physicians in Jamaica. *Pan Am J Public Health*, 29(4):252-58
- Jamaica Family Planning Board and Division of Reproductive Health, Centers for Disease Control and Prevention (CDC). *Jamaica Reproductive Health Survey 2008*, Centers for Disease Control and Prevention (CDC), Atlanta, USA
- Joint United Nations Programme on HIV/AIDS (UNAIDS). (2009). *Thailand HIV and AIDS estimates*, Accessed August 2011, Available from: <http://www.unaids.org/en/regionscountries/countries/thailand/>
- Larson, R. & Brown, J. (2007). Emotional development in adolescence: what can be learned from a high school theater program? *Child Dev*, 78(4):1083-1099
- Limsuwan, N. (1983). Anorexia nervosa: role of antipsychotic drugs in the treatment. *Ramathibodi Medical Journal*, 6:285-90
- Luna, B., Padmanabhan, A., & O'Hearn, K. (2010). What has fMRI told us about the development of cognitive control through adolescence? *Brain Cogn*, 72:101-13
- Martinasek, M., McDermott, R., & Martini, L. (2011). Waterpipe (hookah) tobacco smoking among youth. *Curr Probl Pediatr Adolesc Health Care*, 41:34-57
- McGuire, M., Story, M., Neumark-Sztainer, D., Halcon, L., Campbell-Forrester, S., & Blum, R. (2002). Prevalence and correlates of weight-control behaviors among Caribbean adolescent students. *J Adolesc Health*, 31(2):208-211
- Newman, B. & Newman, P. (1999). *Development through life. A psychosocial approach* (7th ed.), Wordsworth Publishing Co., Belmont, USA
- Nugent, R. (2005). Youth in a global world. In: *Population Reference Bureau*, Accessed August 2011, Available from: <http://www.prb.org/pdf06/YouthInAGlobalWorld.pdf>
- Page, R. & Suwanteerangkul, J. (2007). Dieting among Thai adolescents: having friends who diet and pressure to diet. *Eat Weight Disord*, 12:114
- Paus, T. (2005). Mapping brain maturation and cognitive development during adolescence. *Trends Cogn Sci*, 9:60-8
- Radzik, M., Sherer, S., & Neinstein, L. (2007). Psychosocial Development in Normal Adolescents, In: *Adolescent Health Care: A Practical Guide* (5th ed.), Neinstein, L., Gordon, C., Katzman, D., Rosen, D., & Woods, E., pp 27-31, Lippincott Williams & Wilkins, Philadelphia, USA
- Somerville, L. & Casey, B. (2010). Developmental neurobiology of cognitive control and motivational systems. *Curr Opin Neurobiol*, 20(2):236-241
- Sridawruang, C., Pfeil, M. & Crozier, K. (2010). Why Thai parents do not discuss sex with their children: a qualitative study. *Nurs Health Sci*, 12:437-43
- Statistical Forecasting Bureau, National Statistical Office (NSO) Thailand. (2007). *Alcohol and smoking report*, Accessed August 2011, Available from: http://service.nso.go.th/nso/nsopublish/themes/theme_2-4-7.html
- Statistical Forecasting Bureau, National Statistical Office (NSO) Thailand. (2008). *Child and youth statistics report*, Accessed August 2011, Available from: http://service.nso.go.th/nso/nsopublish/themes/theme_2-1-11.html. Thai
- Statistical Institute of Jamaica (2011). *Demographic statistics*. Accessed September 2011, Available from: <http://statinja.gov.jm>

- Steinberg, L. (2005). Cognitive and affective development in adolescence. *Trends Cogn Sci*, 9(2):69-74
- The Royal College of Pediatricians Thailand (RCOP). (2009). The Task force on Thailand's Child and Adolescent Health Situation, In: *Analysis of Child and Adolescent Health Situation*, pp. 161-188
- The World Bank (2011). *Country classifications*. Accessed September 2011, Available from: <http://data.worldbank.org/about/country-classifications>
- Thianthai, C. (2006). Influential sources affecting Bangkok adolescent body image perceptions. *Int J Adolesc Med Health*, 18:633-41
- United Nations (n.d.). *United Nations report on global situation of youth shows changing trends*, Accessed August 2011, Available from: <http://www.un.org/events/youth98/backinfo/yreport.htm>
- United Nations Children's Fund (UNICEF). (2011). *The State of the World's Children 2011: Adolescence an age of opportunity*, UNICEF, ISBN:978-92-806-4555-2, New York, USA
- United Nations Children's Fund (UNICEF). (n.d.). *Parenting in Jamaica*, Accessed September 2011, Available from: http://www.unicef.org/jamaica/parenting_corner.html
- Wilks, R., Younger, N., McFarlane, S., & Van Den Broeck, J. (2007). *Jamaican youth risk and resiliency behaviour survey 2006: community-based survey on risk and resiliency behaviors of 15-19 year olds*, Accessed September 2011, Available from: <http://www.cpc.unc.edu/measure/publications/tr-07-64>
- Winn, P. (2010). Warning: This fad may kill you, Korean trends tagged with deadly warnings in Thailand, In: *Global Post*, Accessed August 2011, Available from: <http://www.globalpost.com/dispatch/thailand/100823/korean-wave-fashion-thai-culture>



Complementary Pediatrics

Edited by Dr. Öner Özdemir

ISBN 978-953-51-0155-0

Hard cover, 354 pages

Publisher InTech

Published online 16, March, 2012

Published in print edition March, 2012

Complementary Pediatrics covers complementary issues of pediatric subspecialties consisting of ophthalmologic, surgical, psychosocial and administrative issues of frequently used medications. This book volume with its 16 chapters will help get us and patients enlightened with the new developments on these subspecialties' area.

How to reference

In order to correctly reference this scholarly work, feel free to copy and paste the following:

Fadia AlBuhairan, Rosawan Areemit, Abigail Harrison and Miriam Kaufman (2012). Adolescent Psychosocial Development and Evaluation: Global Perspectives, Complementary Pediatrics, Dr. Öner Özdemir (Ed.), ISBN: 978-953-51-0155-0, InTech, Available from: <http://www.intechopen.com/books/complementary-pediatrics/adolescent-psychosocial-development-and-evaluation-global-perspectives>

INTECH
open science | open minds

InTech Europe

University Campus STeP Ri
Slavka Krautzeka 83/A
51000 Rijeka, Croatia
Phone: +385 (51) 770 447
Fax: +385 (51) 686 166
www.intechopen.com

InTech China

Unit 405, Office Block, Hotel Equatorial Shanghai
No.65, Yan An Road (West), Shanghai, 200040, China
中国上海市延安西路65号上海国际贵都大饭店办公楼405单元
Phone: +86-21-62489820
Fax: +86-21-62489821

© 2012 The Author(s). Licensee IntechOpen. This is an open access article distributed under the terms of the [Creative Commons Attribution 3.0 License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.