ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 4, Issue, 10, pp. 2014-2018, October, 2014

International Journal of
DEVELOPMENT RESEARCH

Full Length Review Article

THE IMPORTANCE OF INVESTIGATING ADOLESCENTS' HEALTH-RELATED BEHAVIOURS: AN OPPORTUNITY FOR IMPROVING PUBLIC HEALTH

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ARTICLE INFO

Article History:
Received 16th July, 2014
Received in revised form
22nd August, 2014
Accepted 08th September, 2014
Published online 25th October, 2014

Key words:
Public Health,
Adolescents,
Behaviours,
Life-style,
Health promotion,
School Health.

ABSTRACT

The concept of health behaviours and risk behaviours has emerged as a major issue in the population health, health promotion and epidemiology literature. Generally, ‘health behaviour’ and ‘health risk behaviour’ are terms that are often used interchangeably. It is well recognized that people’s health status and their behaviours are linked inextricably. The concept of health risk behaviour has been used to describe behaviours with potentially has negative effects on health which contribute to the leading causes of morbidity and mortality. Since, chronic diseases are the major causes of morbidity and mortality across the globe, it is crucial to consider their huge burden and consequence costs economically, socially beside their expensive medical services and its related cost. Unfortunately, people from all age groups, especially adolescents adopt and practise some risk behaviours, even if they know they are unhealthy or harmful. Thus, the prevention of risk behaviours among children and adolescents is a high priority in public health. It is important to find early indications of health-risk behaviours, as established risky behaviour in young ages can be difficult to change later in life and absolute harmfulness of their quality life in future. Therefore, childhood and adolescence might be the ideal time to motivate and promote healthy behaviours and healthy choices. Consequently, emphasis should be given to tackling such dangerous behaviours that threaten health through well designed multi-level approach interventions.

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INTRODUCTION

It is well recognized that people’s health status and behaviours are linked inextricably. The concept of health behaviours and risk behaviours has emerged as a major issue in the population health, health promotion and epidemiology literature. Behaviours, knowledge, beliefs and attitudes may have a significant influence on physical, psychological and mental health status and well-being. Indeed, behaviour and lifestyle are crucial determinants of health, illness, disability, and premature mortality (Currie *et al.*, 1998). Generally, ‘health behaviour’ and ‘health risk behaviour’ are terms that are often used interchangeably. Nevertheless, health behaviour is a general term that describes actions people take which have positive influence upon their health and other aspects of life style such as employment and living conditions namely; such as healthy diet, physical exercise, oral hygiene behaviours, avoidance or sensible drinking and safe sexual behaviours. Conversely, the concept of health risk behaviour has been used to describe behaviours with potentially negative effects on health which contribute to the leading causes of morbidity and mortality such as substance use, early onset of sexual activity or unsafe sexual practices, risky driving, violent or suicidal behaviours, antisocial behaviours, disordered eating, sedentary life, and smoking among others (Suris *et al.*, 2008; Currie *et al.*, 2000, 2004, 2008; Wang *et al.*, 2009). Lately, the World Health Report 2002, which was published under the title: *Reducing risks, Promoting life*, has acknowledged the crucial importance of health behaviours, and risk factors as causes of much of the world’s burden of disease (WHO, 2002a). Indeed, the report states that the ten leading preventable risks to global health have behavioural underpinnings, such as unsafe sex, smoking, abusive alcohol consumption, physical inactivity, high blood pressure, hypercholesterolemia and other diet related problems. Until

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recently, all of these factors and the diseases linked to them had been thought to be common in industrialized countries. However, WHO demonstrates they are now becoming common in developing countries (WHO, 2002a), where they create a double burden in addition to infectious diseases and poor –unhealthy- lifestyle. Unfortunately, people from all age groups, especially adolescents adopt and practise some risk behaviours, even if they know they are unhealthy or harmful. Adolescence is a period of rapid physical and mental development when they are confronted with opportunities for risks (Fritch, 2004). Adolescents' behaviours and lifestyles may directly or indirectly impinge on their health both in the long term and the short term (Kumar *et al*., 2004). ''Many adolescents are exposed to health risks because of poverty, exploitation, gender discrimination, war, violence, change in social and economic situations as well as risky behaviour'' (Fritch, 2004). Moreover, some risk behaviours may primarily influence the individuals who practice them, such as drug user, injury related behaviours, whereas some behaviours affect others beyond the individual. For instance smoking tobacco has a direct and long term impact on people who smoke and an indirect impact on other people who inhale smoke passively, while others have a direct influence on individuals and their partners (e.g. unsafe sexual behaviour). Therefore, emphasis should be given to tackling such dangerous behaviours that threaten health.

Adolescence as a Stage of Life

Adolescence is defined as the period from the onset of puberty to the termination of physical growth and attainment of final adult height and characteristics (Dorland's illustrated medical dictionary, 1974). Moreover, it is "characterized by many rapid, interrelated changes of body, mind and social relationships" (WHO, 1997). It is the period of transition between childhood and adulthood, and it is marked by physical, emotional, and sexual maturation. It has been reported that "Adolescence itself is a period of profound cognitive, physical, social and moral development, none of which adheres to a perfectly predictable course" (SAM, 1999). The development of many aspects of adolescent life (e.g. familial, interpersonal and institutional relationships) at this critical stage of life may have lasting influences throughout the life-course (Wheaton and Clarke, 2003).

Adolescents comprise a significant part of today's population, and are greater in number than any time (UNFPA, 2005). It has been stated that one fifth of the world's population (a total of 1.2 billion people) are adolescents, and 85% of them are in the developing world (WHO, 2007). Nearly half of the world's population (almost 3 billion people) is under the age of 25. Asia alone is home to 70% of the developing world's young people (UNFPA, 2005). It is remarkably that adolescent in all countries representing the bright future. Therefore, adolescence is an important time to implant healthy choices and effective interventions to prevent disease and enhance the potential for life-long behaviour that contributes to the health. However, it has been reported that the huge rates of change and development in this life stage create additional complexity for those who deliver health care (Keeney *et al*., 2004).

Adolescents Challenge and Opportunities

The massive and numerous developmental changes in physical, emotional and psychological characteristics that start during puberty create new feelings and may naturally lead to different behaviours among adolescents. It is a critical period of discovery and development of behaviours that are important to health (Schulenberg *et al*., 1997). Adolescence is a key stage of social and biological development during which individuals develop their personal identities, partly through exploring and experiencing new roles, circumstances and events (Coleman and Hendry, 1990). Indeed, health related behaviours and beliefs established during this period of development are firmly linked to patterns of behaviour in adulthood (Wadsworth, 1992). However, many adolescents experiment and engage in health damaging behaviours (Must *et al*, 1992).

In general, it has been reported that the main causes of adolescent morbidity and mortality are primarily due to preventable health risk behaviours (Muscari, 1999, WHO, 2000; Brown, 2001,). Five leading causes of death (unintentional injuries, HIV/AIDS, other communicable diseases, violence, and suicide) have been reported in people aged 15–29 years (Blum and Nelson-Nmari, 2004). Moreover, in their systematic analysis study, Patton and his colleagues analysed worldwide rates and patterns of mortalityin people aged 10–24 years (Patton *et al*., 2009). The study described international rates and patterns of mortality between early adolescence and young adulthood. They found that traffic accidents were the largest cause and accounted for 14% of male and 5% of female deaths. Other prominent causes included violence (12% of male deaths) and suicide (6% of all deaths). The results collectively indicated that; traffic accidents, violence, and suicide accounted for more than half of all-cause mortality in both sexes. Moreover, it has been found that traffic accidents caused 32% of deaths in males aged 10–24 years in high-income countries. Violence and suicide accounted for 10% and 15% of male mortality, respectively. On the other hand, in females, traffic accidents (27%) and suicide (12%) were the main causes of death. Therefore, improving the physical and mental health of young people in the present and future is important and has become a focus for health care providers, health policy makers and researchers of various disciplines in developed countries.

Emphasizing health care services and health provision during adolescence and research targeting adolescents' health have become important for several reasons. Firstly, the period of adolescence is a transitional time when the developments of social and intellectual skills are of utmost importance for adult life. These transitions in biological, cognitive, and psychological domains provide many opportunities for adolescents to engage in risky health behaviours or to begin to develop a healthy lifestyle. Secondly, the factors which influence adolescents' morbidity and mortality are primarily preventable. Thirdly, preventing health risk behaviours among adolescents help to prevent disease, enhance health and improve life quality. Since risk factors may translate into disease, disability and death, therefore prevents diseases save health, lives, and money. In other words, promoting healthy behaviours and preventing risky behaviours can be a cost effectiveness strategy. For example, tobacco causes or contributes to lung cancer, ischemic heart disease and other diseases; as a result, smoking prevention would be cost effective and improve health. Over the past decade there has been growing acceptance that young people between 10 and

24 years of age are a distinct population group with needs that differ from those of infants or adults (Coleman, 2001; WHO, 2002b), and youths may be especially vulnerable to risk since shifts in health take place around puberty as new health risks become prominent which have potential life-threatening risk (Resnick *et al*., 1997; Kelinert, 2007; Patton *et al*., 2007). Much behaviour that comprises young people's lifestyles may directly or indirectly infringe on their health in the short or long term; consequently, a wide range of behavioural variables should be measured (Currie *et al*, 2000). In line with that, taking a social as opposed to a purely biomedical research perspective means studying the social environmental and psychological influences or determinants of child and adolescent health and health behaviour (Currie *et al*, 2000).Therefore, individual psychological attributes, and family, school and peer settings and relationships are important avenues to be explored. However, health behaviours may be seen as a pathway through which ecological, psychological and social factors interact and influence health (Currie *et al*., 2001).

Interestingly, the lifestyle choices that a person makes can have a direct and indirect impact on physical and mental well-being. Moreover, these choices and behaviours can be influenced by many factors such as sex, age, social class, income, family style, education, peer group pressure and living condition. Personal and socio-demographic backgrounds are associated with behaviours. For example, it has been found that risk behaviours increase with age (Currie *et al*., 2004, 2008) and boys seem to have a higher number of concurrent risk behaviours (Brener and Collines, 1998; Currie *et al*., 2008; Shaw *et al*., 2010). Moreover, socioeconomic status (SES) and peer, parental and family members risk-behaviours have been shown to strongly influence and be positively associated with risk behaviours among adolescents has also been linked to risk behaviours, although with differing conclusions (Currie *et al*., 2008; Currie *et al*., 2004). Adolescence is an important phase in the life cycle where critical development in different aspects occurs. It is a period that is characterized by the increasing importance of social contexts such as community, schools and peers beyond the home. Unlike children, adolescents are given more freedom of choices in their life and more likely to make their own decisions (Hoffman *et al*., 1994). Therefore, risk behaviours can be considered a normal aspect of adolescent development (Steinberg and Morris, 2001). There is evidence that health risk behaviours tend to cluster together (Lindberg *et al*., 2000; Brener and Collins, 1998; Tubman *et al*., 1996; DuRant *et al*., 1999; Viner *et al*., 2006; Rhee *et al*., 2007).

Generally speaking, the development of chronic diseases is largely the result of behavioural factors. Many of the most common causes of morbidity and mortality are influenced by health behaviours (Kann *et al*., 2000; Kelder *et al*., 1994, Cox, 2001). Thus, the prevention of risk behaviours among children and adolescents is a high priority in public health. It is important to find early indications of health-risk behaviours, as established risky behaviour in young ages can be difficult to change later in life. Thus, childhood and adolescence might be the ideal time to motivate and promote healthy behaviours and healthy choices. Smoking, diet, exercise and sedentary life, oral health hygiene behaviours, injuries related behaviours, violence and safety may have much in common. They are lifestyle behaviours and associated with health. This begs the question, what are the prevalence of these behaviours and the nature of associations between each other among adolescents? Despite the important connection between behaviour and overall health, many countries, especially developing countries, still lack basic prevalence estimates of youth risk behaviours. This may be due to a lack of resources, a lack of research capacity, or both (Phongsavan *et al*., 2005).

Studying Adolescents' Behaviours

Adolescence has long been studied; Litt (1999) mentioned that adolescence studies began in 1904 with the work of G. Stanley Hall (Litt, 1999). Adolescent health programs are only well established in the Western world. The World Health Organization (WHO) has a strong interest in the health of young people and adopts a comprehensive approach to promote adolescent health. Health problems of adolescent were first discussed during a WHO technical expert committee meeting in 1965. In Europe, Health Behaviour in School-aged Children (HBSC) is a cross-national research study conducted in collaboration with the WHO Regional Office for Europe. HBSC was initiated in 1982 by researchers from three countries and shortly afterwards the project was adopted by the World Health Organization as a WHO collaborative study. There are now over forty participating countries and regions. The survey is carried out on a nationally representative sample in each participating country. The sample consists of approximately 1500 from each age group (i.e. a total of 4500 adolescents from each participating country).

The Centre for Disease Control and Prevention in the United States (CDC) serves adolescents through a unique public institution. In 1998, CDC established the National Centre for Chronic Disease Prevention and Health Promotion (NCCDPHP), including the Division of Adolescent and School Health (DASH). DASH's mission is to prevent serious health risk behaviours among children and adolescents. The Youth Risk Behaviours Surveillance System (YRBSS) monitors priority health-risk behaviours and the prevalence of obesity and asthma among youth and young adults. The YRBSS includes a national school-based survey conducted by the Centres for Disease Control and Prevention (CDC). The Youth Risk Behaviour Surveillance System (YRBSS) and Health Behaviour in School-aged Children (HBSC) mainly similar in monitoring six categories of priority health-risk behaviours among youth and young adults including:

- Smoking and tobacco use
- Alcohol and other drug use
- Sexual behaviours that contribute to unintended pregnancy and sexually transmitted diseases (STDs), including human immunodeficiency virus (HIV) infection
- Unhealthy dietary behaviours
- Physical inactivity
- Behaviours that contribute to unintentional injuries and violence

Conclusion

In conclusion, much previous research on adolescents' health has shown that the greatest health threats for adolescents are behavioural. Therefore, as a result of adolescents'

development, the changes in how adolescents think, reason, and understand can lead to wrong choices and risk behaviours. Just as other people such as parents, adults or elderly sometimes make poor decisions, so do adolescents. This can especially be a problem when some influences such as peer pressure, family problem or low economic status lead to poor decisions which lead adolescents to engage in risky behaviours such as the use of drugs or alcohol, violence, suicide or unsafe sex.

Policy makers, parents and teachers should have a sound background in adolescent growth and development and the competencies necessary to assess health, given the wide range of physical, emotional and psychosocial skills that an adolescent might possess at a given age. Parental supervision is also important until the adolescent achieves self-reliance in order to adopt healthy and safe choices. Moreover, it is important to consider the necessary education that students must possess regarding the nature of adolescents, their stage of development, health issues and the barriers and challenges to health within their environments. The social development of adolescents is best considered in the contexts in which it occurs; that is relating to peers, family, school, work, and community. A strong sense of bonding, closeness, and attachment to family have been found to be associated with better emotional development, better school performance, and engagement in fewer high-risk activities, such as drug use (Resnick *et al*., 1997; Klein, 1997). During adolescence, parent and adolescent conflict may appear and increase. This conflict appears to be a necessary part of gaining independence from parents (Steinberg, 2001).

Additionally, adolescents should have a greater opportunity to express their thoughts and voices in explaining their choices in an atmosphere that encourages dialogue to understand their views, attitude and needs. Adolescents' developments (cognitively, physically, socially, emotionally) influence them to try engaging in new behaviours as they transition from childhood to adulthood, exploratory behaviours are natural in adolescence (Hamburg, 1997). Provision of appropriate and effective adolescent health care necessitates a wide range of policy, knowledge, skills and attitudes going beyond traditional approaches.

However, adolescents appear to be involved in many health risk behaviours. Health behaviours during adolescence are regarded as multidimensional and complex phenomenon. Throughout the world, adolescence is considered to be a time of relatively good health; therefore they may not be viewed as a priority. In recent years, especially in developed countries, increasing attention has been paid to the health situation and health-related behaviours of adolescents. Despite the important connection between behaviour and overall health, many countries, especially developing countries, still lack basic prevalence estimates of adolescents risk behaviours. This may be due to many reasons such as; a lack of vision and poor decision regarding the importance of adolescents health and development, a lack of resources, poor or a lack of research capacity. Adolescents need to be reached with health-related interventions and health-promoting programs that are based on a fundamental understanding of their developmental, psychological, and physical needs. Therefore, there is a need for more research on autonomy, decision-making and their lifestyle behaviours. Also, there is a need to conduct qualitative research about risk health-related behaviours and behavioural risk factors to help us understand how adolescents feel, behave and what they feel and why they engage in risk behaviours as they do. In addition, school is very important and privileged environment for the implementation of health programs, and educational approaches should focus on developing adolescents' knowledge, health and life skills.

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