

# A Critical Review on Adolescent Health Indicators: The Importance of Comprehensive Measurement

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## ABSTRACT

This paper conducts a critical review on the existing health indicators in South Korea. The review is part of measures to pinpoint the health status of adolescents in South Korea. The health indicators for adolescents in South Korea have relied on physical health indicators such as obesity and emotional/psychological health indicators such as depression. That is, there have been an insufficient number of indicators to comprehensively measure the health status of adolescents in terms of physical, psychological, and social aspects. This reality is what the study will closely examine and the study will also emphasize the need for health indicators that attempt to comprehensively measure adolescents' health. And as a way to do this, this paper pays attention to 'self-rated health'. This paper consists of three parts. The first part explores the current status of related issues in order to understand the current state of health measurement for adolescents in South Korea. The second part reviews the existing major indicators (e.g. depression, self-esteem) in relation to adolescent health measurement. The third part examines self-rated health (i.e. subjective health status perception) that seeks comprehensive health measurement and this is for improving the level of health measurement for adolescents.

## KEY WORDS

Adolescents, Health status, Health indicators, Comprehensive measurement, Self-rated health (Subjective health status perception)


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\*This paper is an excerpt and revision of the author's unpublished Ph.D. Dissertation, *Longitudinal Interrelationship between Adolescent Health and Social Relations* (August 2022, University of Seoul).

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Received: July 29, 2023; Reviewed: September 8, 2023; Revised and Accepted: September 16, 2023

## 1 | INTRODUCTION

Health in adolescence is important in that it may affect health in adulthood. Adolescent health is not only related to satisfaction during adolescence, but also has a great impact on health and life after adolescence. In addition, health habits formed during adolescence tend to persist into adulthood (Kim Won-kyung, 2015; KDCA & MOE, 2022). As such, adolescence is an important period as it has a considerable impact on the health in adulthood.

For this reason, the government of South Korea conducts a large-scale survey to systematically manage and promote the health of adolescents, and establishes and implements related policies based on the results of the survey. The related efforts include Adolescent Health Behavior Survey, Student Health Checkup Program, and Comprehensive Plan for Adolescent Health Promotion. These surveys and policies cost a lot of money, meaning they should be based on objective data. That is, collecting and organizing data is very important.

However, it is important to note that data collecting and organizing is done using related indicators. Indicators are a key means when establishing evidence (i.e. data) for direct/indirect interventions in adolescent health. Simply put, adolescent health is measured through ‘indicators’, and then accumulated as data, and finally supported by related policies and programs that are ‘materialization of indicators’. As such, indicators are very important. Nevertheless, we rarely raise fundamental questions about them. Adolescent health indicators could be defined as “a quantitative expression of adolescents’ health phenomena to find out the health status of adolescents” in advance. Given this, we should ask whether the existing indicators actually reflect the health status of adolescents. In other words, we should ask if the existing indicators are composed of components that can accurately show the current health status of adolescents.

Currently, depression and self-esteem are main indicators for adolescent health. These indicators measure emotional/psychological health. This is well reflected in the ‘Adolescent Health Behavior Survey’. Adolescent Health Behavior Survey, which relies on these indicators, devotes a large part of it to explaining the emotional/psychological health of adolescents. Except for the explanations on physical health such as obesity, it could be said that almost all explanations in it are on emotional/

psychological health such as depression.

With this in mind, this paper critically reviews the adolescent health indicators in South Korea. In particular, this paper will critically review the current tendency to explain the overall health status of adolescents by using mainly emotional/psychological health indicators along with the conventionally used health indicators (i.e. physical health such as obesity). This paper suggests that one way to overcome these problems is taking a 'comprehensive approach' to adolescent health. That is, in addition to the existing indicators, there is a need for indicators that comprehensively measure health status in terms of physical, psychological, and social aspects. This paper focuses on 'self-rated health', so called subjective health status perception, as a health indicator that takes a comprehensive approach.

This paper consists of three parts. The first part will examine the current status of related issues in order to capture the current state of youth health measurement in South Korea. The second part will review the existing main health indicators, such as depression and self-esteem in order to understand the characteristics of the current health measurement pattern. The third part, as a way to supplement the limitations of the current health measurement pattern, will examine the subjective health status perception.

## **2 | CURRENT STATE OF ADOLESCENT HEALTH MEASUREMENT IN SOUTH KOREA: 'ADOLESCENT HEALTH BEHAVIOR SURVEY' AND ADOLESCENT HEALTH POLICIES**

Emotional/psychological factors are some of the factors that have a great impact on adolescents in South Korea during their adolescence. This could be attributed to some social characteristics of South Korea where education focused on college entrance exams predominantly affects adolescents during adolescence. This situation is also well shown in the 'Adolescent Health Behavior Survey' by the Ministry of Education (MOE) and the Korea Disease Control and Prevention Agency (KDCA). A recent survey also reports that depression among adolescent students is on the rise, and that it has a significant impact on their physical health (Lee Si-hyo, 2020). For this reason, in recent years, when measuring the health of

adolescents in South Korea, emotional/psychological health, such as depression and self-esteem, tends to get more attention than physical health, such as obesity, does.

This tendency is also found in some preexisting studies related to adolescent health measurement and related policy analyses. According to some preexisting studies and policy reports, the emotional/psychological health of adolescents depends on happiness, and emotional/psychological health often affects their daily life and physical health. For example, when adolescents feel emotional/psychological satisfaction and manage their stress well, they are likely to cope well with their schoolwork, careers, family relationships, and friendships, which has a positive effect on their health (Petersen & Hamburg, 1986; Hodgson & Abbasi, 1995; Korea Youth Counseling Institute, 2005; Korea Youth Policy Institute, 2011; Choi Mi-gyeong & Choi Se-yeong, 2021).

## 2.1 | Adolescent Health Behavior Survey

Adolescence is regarded as the healthiest period in life (Song Chan-hee, 2002), but it is also the period that can be affected by some factors that have a negative impact on health promotion. First, school life is one of these factors that harm the health of adolescents. School focus more on academic-centered activities, thus dramatically reducing physical activities during adolescence (Kim Yeong-a, 2001). During this period, most adolescents in South Korea do not have opportunities for physical activities at appropriate levels for physical and mental development because they spend most of their daily lives seated at desk, which makes it difficult to promote their health. Next, some other factors affecting the health of adolescents include emotional changes and stress (So Seon-sook et al., 2011). Cognitive development causes adolescents to undergo various emotional changes that they do not experience in childhood and reconstruct their perception of themselves (Song Chan-hee, 2002). In addition, they experience considerable amount of mental stress as various tasks, such as academic achievement and school adaptation, are assigned to them (Park Seong-jun, 2018: 22).

As such, when it comes to explaining the health in adolescence, physical health alone is not sufficient. This is because during this period, various emotional/

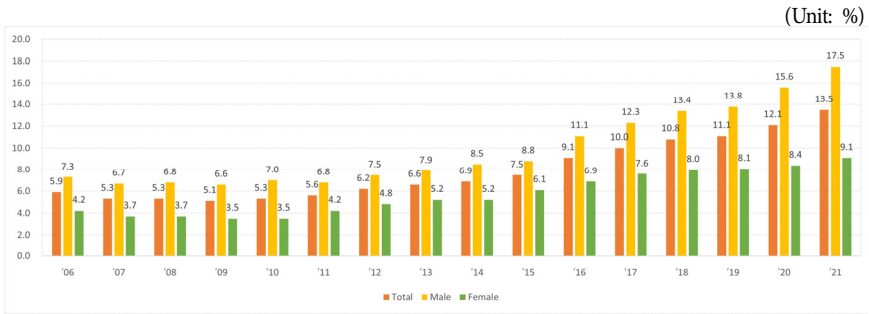
psychological factors affect adolescents. In fact, the KDCA's 'Adolescent Health Behavior Survey' is also paying attention to this point in relation to the current adolescent health behaviors. The survey addresses not only physical health such as obesity but also emotional/psychological health including depression and self-esteem.

Adolescent Health Behavior Survey is a representative data that examines the health of adolescents in South Korea. The MOE and the KDCA have conducted this annual survey since 2005. The survey targets students from the first year of middle school to the senior year of high school and identifies health behaviors such as obesity and depression among adolescents. Then the data from this survey is used as basic data to calculate health behavior statistics of adolescents in South Korea and to plan and evaluate adolescent health policies and health promotion programs (MOE & KDCA, 2022). Based on this, this paper aims to explore the trends of adolescents' health in South Korea through the data from the Adolescent Health Behavior Survey.

Firstly, one aspect of the physical health of adolescents can be seen through obesity. The obesity rate of all adolescents has shown a marked increase since 2016. Before 2016, it had stayed at about or below 10%. However, since 2016, it has been on the rise. The obesity rate of male students is relatively higher than that of female students. When comparing the obesity rate of male students before 2010 with the obesity rate after 2020, it appears to have increased by about 10% points. On the other hand, that of female students decreased and remained steady from 2007 to 2010. However, it has been on the rise since 2011. Nevertheless, the increase rate was less than 5% points, only a slight increase compared to the increase rate of male students.

Next, a part of the emotional/psychological health of adolescents could be examined through depression. Over all, the proportion of adolescents experiencing depression increased slightly, but was on the decline starting from 2008. However, in 2019, it appears that the rate of adolescents experiencing depression was rapidly increasing. But, after 2020, it decreased again and remained at about 25%. The rate of experiencing depression was higher among female students than male students during all survey periods. The rate of experiencing depression among female students was the highest at 46% or more in 2006 and 2007, and the lowest

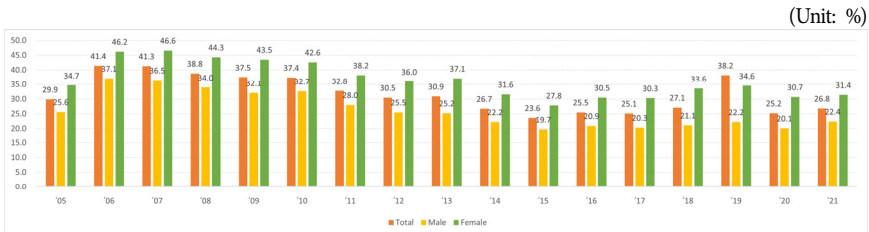
at 27.8% in 2015. Since 2016, female students' depression experience rate has maintained the 30% level without significant increase or decrease. The rate of experiencing depression among male students has been steadily declining since 2006, when it increased by 10% points compared to the previous year. The rate of experiencing depression among male students was the lowest at 19.7% in 2015, and since then it has been in the 20% range until recently.



**Figure 1.** Adolescent Obesity Rates by Year (2006-2021)

\*Note: Growth chart for children and adolescents in 2017. Percentage of people above the 95th percentile for body mass index by age.

\*Source: MOE & KDCA (2006-2021), Raw data of the Adolescent Health Behavior Survey (Online).



**Figure 2.** Adolescents' Depression Experience Rate by Year (2005-2021)

\*Note: Percentage of people who felt sorrow or despair to the extent that they stopped performing their daily activities for 2 weeks in the last 12 months.

\*Source: MOE & KDCA (2005-2021), Raw data of the Adolescent Health Behavior Survey (Online).

## 2.2 | Adolescent Health Policies

In terms of adolescents' health, preemptive response is important when considering social costs. This suggests what is needed is intervention at the social level is needed, not individual level response. In this sense, the paper reviews the current policies and programs for adolescent health promotion in South Korea.<sup>1)</sup>

### 2.2.1. Status of Policies Related to Adolescent Health

One of the most representative programs related to adolescent health is the 'Student Health Checkup Program' based on the 'School Health Act'. This is conducted four times (i.e. 1st grade in elementary school, 4th grade in elementary school, 1st grade in middle school, and 1st grade in high school) in order to promote health and prevent diseases. The specific details of school health checkup are presented in the 'School Health Checkup Rules'. The health examination is composed of physical development status/ability, health survey, mental health status test, and health checkup. And, student health checkup is conducted through a designated checkup institution for each school, and checkup items are added according to the life cycle (i.e. school grade). For example, for middle school students, a tuberculosis test and for high school students, a hemoglobin test is added respectively. Recently, as the proportion of obese students continues to increase, the 'metabolic syndrome test for obese students' is being added and expanded in student health checkup. In 2019, the test became mandatory for 5th and 6th graders in elementary school, and for 4th graders in elementary school, it was recommended. In 2020, it became mandatory for 4th to 6th graders in elementary school, and for 3rd graders in elementary school it was recommended.

There are also 'Mental Health & Welfare Center Operation Project' and 'Mental Health Checkup Program' based on the 'Mental Health Promotion and Mental Illness & Welfare Service Support Act'. The Mental Health Checkup Program targets children and adolescents in elementary, middle, and high schools. The

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1) The following content on the current status of adolescent health policies is summarized with reference to Lim Hee-jin et al. (2019: 42-55). However, among the following content, the Comprehensive Plan for Mental Health refers to Choi Ji-hui & Jeon Jin-a (2017: 83).

program is about the harm of drinking alcohol and targets adolescents who have been found to have issues related to it. The Mental Health & Welfare Center Operation Project, which started in 2002, provides preventive services for mental health by establishing a linkage system between schools, education offices, welfare facilities/centers, and medical institutions in the region, and provides essential services by discovering high-risk groups in advance. This project also provides support for the underprivileged or teenagers in youth shelters.

In terms of mental health, there is also 'Youth Treatment and Rehabilitation Center Operation Project'. The operation of the Youth Treatment and Rehabilitation Center is conducted in accordance with the 'Youth Protection Act' and the 'Youth Welfare Support Act'. It aims to provide professional services to adolescents who have difficulties with emotional behavior, and operates medical support including psychiatric counseling, psychological examination and evaluation, family intervention programs, operation of living communities, and experiential activity programs.

In addition to these health checkup and mental health promotion programs, there is medical benefit programs, medical expenses support for pregnancy and childbirth for adolescent mothers, support for children's national vaccinations, support for taking sports classes, provision of school milk and meals, provision of hygiene products for female adolescents, etc. Support from these programs is done in forms of cash and in-kind services.

### **2.2.2. Comprehensive Plan for Adolescent Health Promotion**

Adolescence is a period when healthy lifestyle habits are formed. Therefore, the government makes students' health the most important goal of national education. And to promote adolescent health, the government has been announcing comprehensive plans led by related ministries. For example, when the government established the 'Comprehensive National Health Promotion Plan', it also announced various plans for adolescent health promotion by setting a separate area for student health. In addition, in March 2019, 12 related ministries jointly established and announced the '1st Student Health Promotion Basic Plan (2019-2023)'.



- ***Comprehensive Plan for Obesity Control***

The ‘Comprehensive Plans for Obesity Control’ was announced in 2018 under the vision of “realizing a healthy life of the people through obesity prevention and control”. It encompasses policies on eating habits, physical activity, and obesity prevention, and consists of four areas.

The first area is about strengthening education on eating habits and inducing healthy food consumption. To this end, the government plans to strengthen child/adolescent obesity prevention and control, change the obesity-inducing environment, expand foods with nutrition information labels, strengthen monitoring of advertisements that could induce obesity in children, and improve and manage school meal nutrition standards. The second area concerns activating physical activities and creating a health-friendly environment. To this end, strengthening school-based children's/adolescents' sports activities (e.g. revitalizing school sports clubs, discovering and spreading excellent health promotion programs, spreading vouchers for sports classes, etc.), and community-based programs (e.g. promoting adolescent obesity prevention and control programs, expanding health experience camps for obese adolescents, strengthening obese adolescents' capacity to improve physical strength, etc.) will be implemented. The third area is about actively treating severely obese adolescents and reinforcing obesity control. To this end, a community-based obesity exercise clinic program will be promoted. The fourth area is about improving public awareness and establishing a scientific foundation. To this end, public relations activities will be strengthened and an obesity information system for daily units will be established.

- ***Comprehensive Plan for Mental Health***

‘Comprehensive Plan for Mental Health’ was announced in 2016 under the name of “Comprehensive plan for mental health for a happy life and healthy society”. This plan includes programs to improve mental health of adolescents, such as conducting a survey on the mental health of adolescents, establishing a school-based mental health support system, and supporting mental health of adolescents outside of school. Through the survey, it plans to grasp the mental health status of adolescents, which has been neglected until recently, and to actively intervene in the mental health problems of adolescents by identifying the first mental illness

in particular.

In this regard, an integrated/comprehensive link between the government's adolescent mental health-related programs currently being implemented is required. Currently, adolescent mental health-related programs tend to be implemented individually by each government ministry. For example, the Ministry of Health & Welfare operates the mental health promotion centers, the Ministry of Education operates the WEE centers, and the Ministry of Gender Equality & Family operates the youth counseling centers. Thus, an integrated approach to adolescent mental health-related programs is required.

### **3 | EXISTING ADOLESCENT HEALTH INDICATORS: EMOTIONAL/ PSYCHOLOGICAL HEALTH-CENTERED INDICATORS**

#### **3.1 | Depression**

Many people experience depression in everyday life. However, when we look at pathological depression alone, it is known that it often develops during adolescence and middle age. The adolescents in South Korea are likely to be more prone to depression. This is because they are exposed to many factors that could cause depression (e.g. schoolwork, college entrance exams, careers, etc.), and they also experience different changes while going through puberty (Lee Yeon-sook & Kim Chung-hee, 2004).

Adolescence is a period when rapid changes occur in physical, psychological, and social aspects, and during this period, adolescents experience internal confusion and external conflicts, and as a result, experience uncomfortable emotional/psychological conditions (Rathi & Rastogi, 2007). These psychological conditions induce stress and cause emotional/psychological problems such as 'depression', which in turn causes impulsive or aggressive behaviors such as juvenile delinquency (Glaser, 1967).

Clinically, depression in adolescence is when depressed mood and low mood last for more than 2 weeks, and other symptoms include weight change, sleep disturbance, fatigue, worthlessness, decreased concentration, suicidal thoughts and suicide attempts (Choi In-jae et al., 2011). In general, it is reported that the

prevalence rate of depression increases dramatically during adolescence. This is because adolescence is a transitional period from a child to an adult, and adolescents undergo rapid physical, psychological, and social changes (Sohn Min-sung et al., 2013; Lee Jung-sun & Lee Hyong-sil, 2012). In addition, this is because the psychological burden is great as they have to prepare to become adults, which means they have to be ready to deal with issues such as choosing a job and career path, self-realization, and maturation of personality. In short, it is the general opinion of experts that depression is one of the common mental disorders that appear during adolescence (Peter et al., 1986).

Depression in adolescence is somewhat similar to depression in adulthood in terms of symptoms, but it is also different in its characteristics. Some of these characteristics include decreased academic performance in school life and sensitive reactions (Crowe et al., 2006). In addition, it has been reported that depression during adolescence has negative effects on social maladjustment, schoolwork, family life, and physical health (Cook et al., 2009). In terms of social relations, for example, they reject friends and family, feel negative about themselves, and show aggressive tendencies. In terms of schoolwork, they cannot pay attention, their grades drop sharply, or they become frustrated with school life. In terms of family life, they become sensitive to their family (parents and siblings), fight with them, or show delinquent behaviors. In terms of body, they experience headache, abdominal pain, and insomnia are shown, and the risk of suicidal ideation and suicide attempt due to depression increases (Carnevale, 2012).

If depression, which has a decisive impact on emotional/psychological health in adolescence, is not properly dealt with, its effects may continue into adulthood. For this reason, a longitudinal study on adolescent depression is recently drawing attention (Conley & Rudolph, 2009). According to preexisting studies dealing with the developmental trajectory of depression in middle and high schools, internalized symptoms such as depression, anxiety, and social withdrawal in adolescence continuously increase between the ages of 15 and 18 (Min Won-hong & Lee Bong-ju, 2015), or depressive symptoms during adolescence reach their peak between the ages of 15 and 16 and gradually decrease over time (Cho Jeong-ah, 2009; Lim Seong-won, 2013). This shows a different fact from cross-sectional studies that depression in adolescence naturally increases with age. That is,

depression in adolescence may represent different patterns of developmental trajectories (Koo Ja-young, 2004).

Adolescent depression is closely related to delinquent behaviors in the process of development during adolescence. It has been reported that 45% of adolescents with depressive symptoms have behavior disorders (Lee Kyung-min, 2003), or that children and adolescents with high levels of delinquency or aggression are more likely to have depression (Gilliom & Shaw, 2004).

In preexisting studies, the relationship between depression and delinquency was mainly explained with a behavioral model or a failure model. Firstly, researchers who advocate the failure model argue that failure in academic achievement and relationship failure due to delinquency could increase depression in the later period (Capaldi, 1991; Lee Soo-hee & Heo Maan-se, 2015; Min Won-hong & Lee Bong-ju, 2015). On the other hand, researchers who advocate the behavioral model argue that negative emotions related to depression cause conflicts and hostility with acquaintances, causing delinquency (Lim Seong-won, 2013; Wiesner, 2003).

Many preexisting studies argued a causal relationship between depression and delinquency by identifying the effect of depression on delinquency or the effect of delinquency on depression. However, while there are some preexisting studies that argued a unilateral causal relationship between depression and delinquency, there are also preexisting studies that argued a bilateral causal relationship between depression and delinquency. That is, early delinquency causes developmental failure and increases the level of depression, and this increased depression in turn causes stronger delinquent behaviors (Conger et al., 1995).

A latent growth analysis reports that early depression affects the change rate of delinquency over time, or that early delinquency affects the change rate of depression over time. That is, depression and delinquency in adolescence do not individually develop, but mutually develop (Gilliom & Shaw, 2004; Leadbeater et al., 2012; Son Ji-ah & Kim Sun-hee, 2017: 1-2).

### **3.2 | Self-esteem**

During adolescence, cognitive as well as biological developments take place. Cognitive development in adolescence affects the formation of self-identity and

egocentrism, the development of morality, and the social interaction (Choi Mi-gyeong & Choi Se-yeong, 2021: 33). Self-esteem, which is formed as cognition develops, could be a “subjective evaluation of his/her own value” (recitation from Lee Ja-yeong et al., 2009). That is, it could be an internal psychological factor with which one considers himself/herself to be a person of value based on his/her own thoughts and evaluations (Park Gyeong-jin, 2005).

Adolescents with high self-esteem believe that their success depends on their own efforts, and cope appropriately with the stress in everyday life. On the other hand, adolescents with low self-esteem believe that success is not theirs and the results will not change much even if they try, and have low expectations for the future. Adolescents with low self-esteem are likely to be vulnerable to crisis (Korea Youth Counseling Institute, 2005: 19).

Self-esteem is a factor that plays a decisive role in changes and adaptations according to the developmental stages of adolescents, and it also affects individuals' happiness (Park In-ok & Lee Jeong-hwa, 2011). Adolescents' self-esteem is influenced and formed by various factors. Parents' parenting attitude has the greatest influence on adolescents' self-esteem (Kang Bu-ja et al., 2012; Kim Gyeong-su & Kim Hwa-gyeong, 2011; Kim Su-hui & Park Seong-yeon, 2009; Bae Jin-seo, 2013), and it is also affected by other factors such as social supports, psychological factors like depression, adaptation to school life, delinquent behaviors, and stress have an effect (Kang Na-jeong, 2008; Kim Hyeong-su & Kim Yong-seop, 2010; Park Byeong-geum, 2007).

There are three reasons why we should pay attention to adolescents' self-esteem in social welfare practice. First, self-esteem is an important task in the developmental stages of adolescence. Erikson (1959) pointed out the formation of self-identity as a developmental task in adolescence. Self-esteem in adolescence helps to lead a healthy adolescence by cultivating the ability to think and plan independently (Kim Jun-bi et al., 2019).

Second, self-esteem helps individual adolescents adapt well to various environmental systems (Lee Eun-gyoung & Park Seong-yeon, 2011). For example, adolescents with high self-esteem tend to have high adaptability to the environmental systems, and conversely, those with low self-esteem tend to have low adaptability to the environmental systems. Adolescents experience different environmental systems

according to their developmental stages. For example, adolescence requires adaptation in schoolwork and peer relationships. Adolescence is a period of transition from elementary school to middle school, and academic stress is higher than in the previous stages (Kang Geum-ju et al., 2012). It is also an important period for forming good peer relationships, and low self-esteem could cause unsatisfactory peer relationships (An Su-young & Lee Hyong-sil, 2009).

Third, self-esteem is directly related to psychological and social factors, and is a key variable that can explain emotional/psychological health in adolescence. Adolescence experiences extreme ups and downs in terms of emotions along with rapid physical growth (Kim Beom-su, 2004). When adolescents with low self-esteem have problems with emotional/psychological health, they cannot resolve psychological conflicts and show problematic behaviors such as social maladjustment. On the other hand, adolescents with high self-esteem can overcome the emotional/psychological anxiety experienced in the developmental stage, and develop skills needed for management life independently.

During the developmental stage of adolescence, self-esteem is another important factor affecting health. During adolescence, adolescents experience physical and psychological changes due to secondary sexual characteristics, and are burdened with schoolwork. As a result, adolescents who are not confident in their body and health may have low self-esteem. For example, preexisting studies have reported that atopy, allergic rhinitis, and obesity could affect low self-esteem of adolescents (McClure et al., 2005). That is, if adolescents are not confident in their own body and health status, their self-esteem may be low. On the other hand, it is reported that adolescents with high self-esteem pay more attention to their health and practice health promotion behaviors (Jeong & Park, 2007).

Self-esteem affects the emotional/psychological health of adolescents. Self-esteem mediates between stress and adaptation, and affects the behavior of evaluating and coping with stress (Lee Young-ja, 1994). And, it is a general argument of preexisting studies that people with high self-esteem tend to have high adaptability (Kim Hee-hwa, 1998). Thus, self-esteem is more important than anything else in adolescence. Adolescence is a time when adolescents have many concerns about their identity and this can lead to low self-esteem, thus it needs more careful attention (Chubb et al., 1997). In particular, low self-esteem in adolescence has

a positive correlation with negative psychological states such as anxiety and depression (Lee Young-ja, 1994). Therefore, forming and raising self-esteem can be a way to help them wisely pass through adolescence, when adolescents are vulnerable to anxiety, depression, and physical symptoms. In this context, it is important to prevent adolescents from unhealthy behaviors such as smoking. According to preexisting studies, adolescents who smoke have high anxiety and low self-efficacy, resulting in low self-esteem (Park Min-hee & Jeon Hae-ok, 2013; Choi Ji-hui & Jeon Jin-a, 2017).

#### **4 | FOR THE COMPREHENSIVE HEALTH MEASUREMENT OF ADOLESCENTS: 'SUBJECTIVE HEALTH STATUS PERCEPTION' AS A COMPREHENSIVE HEALTH INDICATOR**

As mentioned above, up until recently South Korea has dealt with adolescent health issues, mainly focusing on the emotional/psychological health of adolescents. Adolescents are highly likely to experience emotional/psychological problems because they undergo rapid changes such as puberty and secondary sexual characteristics. Related studies and surveys also tend to pay attention to emotional/psychological factors (e.g. depression and self-esteem). Unfortunately, however, factors such as depression and self-esteem are insufficient to comprehensively evaluate the health status of adolescents. Thus, there is a need for indicators that could identify adolescent health more comprehensively.

In terms of physical, psychological, and social aspects, the 'self-rated health' is mainly used to comprehensively measure health is. Self-rated health is also referred to as the 'subjective health status perception' (An Jin-sang & Kim Hee-jung, 2013; Kwon Eun-seon & Koo In-hoe, 2010: 134; Kim Uk-jin & Kim Tae-yeon, 2020: 136). The self-rated health is composed of questions asking how respondents subjectively evaluate their health status. The self-rated health is commonly used because it has the advantage of being able to comprehensively judge a person's health (Latham & Peek, 2013). The self-rated health is a frequently used measure of health status in the health research. As it is relatively simple to measure with it and the results can be compared internationally, it is highly preferred among

researchers. And, it is highly utilized because its questionnaire is more reliable than those in other indicators (Kim Hyeong-yong, 2010; An Jin-sang & Kim Hee-jung, 2013: 208-209; Kwon & Park, 2020: 44-45).

Adolescence is a process in which the responsibility of health care shifts from guardians to adolescents themselves (Kim Su-rin & Yoo Jo-an, 2014; Lee Sang-gyun et al., 2015; Srof & Velsor-Friedrich, 2006). In childhood, it is caregivers who mainly take care of children's health, but in adolescence, the rights to health care and health-related choices are given to adolescents themselves. As such, as adolescents acquire the right to choose in relation to their health, they collect health-related information on their own and actively participate in various activities for health promotion (Park Seong-jun, 2018).

Compared to adults, adolescents tend to evaluate their health status based on overall functioning in life rather than simply on the presence or absence of physical disease, so the quality of family relationships, achievements in school life, and self-esteem have a greater impact than the presence or absence of chronic diseases (Mechanic & Hansell, 1987).

Since adolescents are influenced by many other factors, not by medical factors such as chronic or physical diseases, when they perceive their health, the measurement of adolescents' self-rated health is very important. In other words, depending on how adolescents evaluate their self-rated health, the use of medical care may be different (Hwang Byeong-deog & Kim Yun-jeong, 2021).

The self-rated health is being used as a tool to measure the 'multidimensional health environments' in relation to the adolescent health. Recently, it was used as the measure to measure the self-rated health of adolescents in the comprehensive survey such as children/adolescents panel data organized by the Ministry of Health and Welfare. As such, more and more adolescents' health-related studies are paying attention to the measure of the self-rated health because of the limitations of preexisting surveys and studies. Preexisting surveys and studies on adolescent health used biological factors in measuring the adolescents' health status. That is, the adolescents' health and nutritional status were determined according to their height and weight. For example, they used the standardized height (Height for Age Z score) and the body mass index (BMI for Age score) (Kim Ye-seong & Park Soon-yeong, 2005). However, measuring the adolescents' health status based on



the growth and development variables is a mistake as it overlooks social structural factors. Therefore, it is necessary to fully utilize the self-rated health, which includes a certain part of lifestyle as well as physical, psychological, and social factors, for a comprehensive assessment of the adolescents' health status (Breidablik et al., 2008; Latham & Peek, 2013; Kwon & Park, 2020: 45).

## REFERENCES

### 1. Literature in Korean

- An, Jin-sang, & Kim, Hee-jung (2013). A study on the determinants of children and adolescents' health inequality in Korea. *Studies on Korean Youth*, 24(2), 205-231.
- An, Su-young, & Lee, Hyong-sil (2009). The effects of individual psychology and family variables on adolescents peer relationships. *Journal of Home Economics Education Research*, 21(3), 163-176.
- Bae, Jin-seo (2013). A study on the effect of child maladjustment on self-esteem in single-parent families. *Journal of the Korean Academy of Social Welfare Support*, 8(1), 189-211.
- Cho, Jeong-ah (2009). The effects of parents, peers and teachers upon changes in mental health on the part of adolescents. *Studies on Korean Youth*, 20(3), 167-192.
- Choi, In-jae, et al. (2011). *A study on mental health improvement policy for children and adolescents: General report*. National Youth Policy Institute.
- Choi, Ji-hui, & Jeon, Jin-a (2017). Adolescents' mental health and its relationship with health behaviors. *Health and Welfare Policy Forum*, 245, 72-83.
- Choi, Mi-gyeong, & Choi, Se-yeong (2021). *Youth welfare theory*. Paju: Eoga Publishing.
- Hwang, Byung-deog, & Kim, Yun-jeong (2021). Impact of physical activity, drinking, and smoking according to self-rated health level in Korean adolescents. *Journal of the Korean Society of Health Service Management*, 15(2), 79-90.
- Kang, Bu-ja, et al. (2012). Relationship between academic stress and school life satisfaction: Mediating effects of self-esteem and resiliency among father-headed families and mother-headed families. *Journal of Korean Society of School Social Work*, 23, 29-50.
- Kang, Geum-ju, et al. (2012). Effects of academic and socio-emotional variables on school adjustment of male and female middle school students. *Journal of Education Studies*, 35, 1-24.
- Kang, Na-jeong (2008). *The influence on a child's self-esteem of perception of inter-parental conflict and social support*. Master's Thesis, Ewha Womans University.
- Kim, Beom-su (2004). *Introduction to Volunteering*. Seoul: Hakjisa Publishing.
- Kim, Gyeong-su, & Kim, Hwa-gyeong (2011). A study on relation between perceived parental

- rearing attitude and self-esteem and ego-resilience of high school students. *Hannam University Journal of Education*, 19(2), 143-170.
- Kim, Hee-hwa (1998). *Self-Esteem development in adolescents: Relationship between environmental variables and adaptation*. Ph.D. Dissertation, Pusan National University.
- Kim, Hyeong-su, & Kim, Yong-seop (2010). Path analysis among healthy family relationship, self-esteem, and depression of teenagers. *Journal of Regional Studies*, 18(3), 155-171.
- Kim, Hyeong-yong (2010). Community inequalities in health: The contextual effect of social capital. *Korean Journal of Sociology*, 44(2), 59-92.
- Kim, Jun-bi, et al. (2019). The effects of child abuse experience on the justification of dating violence in men in their 20s. *Collected Papers of the 2019 Fall Conference of the Korean Academy of Social Welfare*, 335-336.
- Kim, Su-hui, & Park, Seong-yeon (2009). Relations between parenting behaviors, adolescents' parent and peer attachment, and self-esteem by adolescents' gender. *Journal of Korean Home Management*, 27(5), 101-113.
- Kim, Su-rin, & Yoo, Jo-an (2014). The effects of ego-resilience on the trajectories of school adaptation among adolescents in poverty. *Collected Papers of the 2014 Winter Conference of the Korean Society for the Sociology of Education*, 1-25.
- Kim, Uk-jin, & Kim, Tae-yeon (2020). The impact of residential environment satisfaction on health among tenants in publicly purchased properties. *Journal of Korean Social Welfare Administration*, 22(4), 125-158.
- Kim, Won-kyung (2015). Predictors of health behaviors among male and female youth in Korea. *Korean Journal of Youth Studies*, 22(1), 131-154.
- Kim, Yeong-a (2001). This study investigated the relationship of stress levels, social support, and health behaviors in the adolescent population. *Child Health Nursing Research*, 7(2), 203-212.
- Kim, Ye-seong, & Park, Soon-yeong (2005). The study about physical development and adjustment of preadolescent children. *Journal of Korean Council for Children & Rights*, 12(1), 19-39.
- Koo, Ja-gyoung (2004). The relationship between school related psycho-social characteristics and mental health. *Korean Journal of Youth Studies*, 11(2), 217-239.
- Korea Youth Counseling Institute (2005). *A study on adolescent mental health related factors*. Seoul: Korea Youth Counseling Institute.

- Kwon, Eun-seon, & Koo, In-hoe (2010). The effect of poverty on children's health. *Korean Journal of Social Welfare*, 62(4), 129-148.
- Lee, Eun-gyoung, & Park, Seong-yeon (2011). The structural relationships between parents' psychological control, adolescents' depressive experiences, depression, and self-esteem and the importance of self-identity status. *Korean Journal of Human Development*, 18(4), 101-123.
- Lee, Ja-yeong, et al., (2009). Rosenberg' self-esteem scale: Analysis of item-level validity. *Korean Journal of Counseling and Psychotherapy*, 21(1), 173-189.
- Lee, Jung-sun, & Lee, Hyong-sil (2012). Relationships of individual and family variables with adolescents' depression. *Journal of Home Economics Education Research*, 24(4), 77-89.
- Lee, Kyung-min (2003). The effects of attachment and depression on the adolescent delinquency. *Korean Journal of Human Ecology*, 12(1), 1-13.
- Lee, Sang-gyun, et al. (2015). The effect of poverty-related risks on health promoting behaviors in early adolescence. *Studies on Korean Youth*, 26(3), 47-76.
- Lee, Soo-hee, & Heo, Maan-se (2015). The analysis of longitudinal causal relationship between depression and delinquency in adolescents. *Korean Journal of Youth Welfare*, 17(2), 241-264.
- Lee, Si-hyo (2020). The impact of COVID-19 on elementary education at three schools in Bucheon City, Korea. *Space and Environment*, 74, 172-207.
- Lee, Yeon-sook, & Kim, Chung-hee (2004). The effect of Satir Family reconstruction group counseling towards adolescent depression, anxiety, self-esteem and communication. *Korea Journal of Counseling*, 5(3), 867-880.
- Lee, Young-ja (1994). *Relationship between stress, social support, self-esteem and depression and anxiety*. Ph.D. Dissertation, Seoul Women's University.
- Lim, Hee-jin, et al. (2019). *A study on policy plans for youth health rights I*. Sejong: National Youth Policy Institute.
- Lim, Seong-won (2013). *Longitudinal study on the effects of social capital on depression among adolescents*. Master's Thesis, Korea University.
- Min, Won-hong, & Lee, Bong-ju (2015). A longitudinal study to examine the relationship between poverty and the internalization of problems in adolescence. *Studies on Korean Youth*, 26(1), 145-169.

- Ministry of Education (MOE), & Korea Disease Control and Prevention Agency (KDCA) (2022). *Adolescent health behavior survey*.
- National Youth Policy Institute (2011). *Research on the improvement of the laws and institutions for promotion of the mental health of the children and youth people*. Sejong: National Youth Policy Institute.
- Park, Byeong-geum (2007). Factors associated with adolescents' suicidal ideation. *Korean Journal of Human Ecology*, 16(3), 505-522.
- Park, Gyeong-jin (2005). The effects of adolescent domestic violence experience on self-esteem. *Journal of Social Welfare Development*, 11(3), 193-221.
- Park, In-ok, & Lee, Jeong-hwa (2011). Effects of family environment and communication with parents on self-esteem of delinquent and non-delinquent juveniles. *Journal of the Korean Society of Community Living Science*, 22(1), 21-33.
- Park, Min-hee, & Jeon, Hae-ok (2013). Relationships between health behaviors, mental health and Internet addiction by gender differences among Korean adolescents. *Journal of the Korea Academia-Industrial Cooperation Society*, 14(3), 1283-2013.
- Park, Seong-jun (2018). *Longitudinal effects of adolescents' social capital on health*. Ph.D. Dissertation, University of Seoul.
- So, Seon-sook, et al. (2011). Comparative study of gender and school grade differences in adolescent health. *Korean Journal of Youth Studies*, 18(10), 317-340.
- Sohn, Min-sung, et al. (2013). Factors affecting the mental health of adolescents. *Journal of the Korea Contents Association*, 13(2), 359-369.
- Son, Ji-ah, & Kim, Sun-hee (2017). Longitudinal relationship between adolescents' depression and delinquency. *Korean Journal of Child Studies*, 38(6), 1-15.
- Song, Chan-hee (2002). Adolescent health care. *Korean Journal of Family Medicine*, 23(3), 267-280.

## **2. Literature in English**

- Breidablik, H. J., Meland, E., & Lydersen, S. (2008). Self-rated health in adolescence: A multifactorial composite. *Scandinavian Journal of Public Health*, 36(1), 12-20.
- Capaldi, D. M. (1991). Co-occurrence of conduct problems and depressive symptoms in early adolescent boys: I. Familial factors and general adjustment at Grade 6. *Development*

- and *Psychopathology*, 3(3), 277-300.
- Carnevale, C. (2012). Late-life depression as a risk factor for mild cognitive impairment or Alzheimer's disease in 30 US Alzheimer's Disease Centers. *Journal of Alzheimer's Disease*, 31(2), 265-275.
- Chubb, N. H., Fertman, C. I., & Ross, J. L. (1997). Adolescent self-esteem and locus of control: A longitudinal study of gender and age differences. *Adolescence*, 32(125), 113.
- Conger, R. D., Patterson, G. R., & Ge, X. (1995). It takes two to replicate: A mediational model for the impact of parents' stress on adolescent adjustment. *Child Development*, 66(1), 80-97.
- Conley, C. S., & Rudolph, K. D. (2009). The emerging sex difference in adolescent depression: Interacting contributions of puberty and peer stress. *Development and Psychopathology*, 21(2), 593-620.
- Cook, D. M., et al. (2009). American association of clinical endocrinologists medical guidelines for clinical practice for growth hormone use in growth hormone-deficient adults and transition patients 2009 update: Executive summary of recommendations. *Endocrine Practice*, 15(6), 580-586.
- Crowe, T. K., & Florez, S. I. (2006). Time use of mothers with school-age children: A continuing impact of a child's disability. *American Journal of Occupational Therapy*, 60(2), 194-203.
- Gilliom, M., & Shaw, D. S. (2004). Codevelopment of externalizing and internalizing problems in early childhood. *Development and Psychopathology*, 16(2), 313-333.
- Glaser, M. D. (1967). Masked depression in children and adolescents. *American Journal of Psychotherapy*, 21(3), 565-574.
- Hodgson, R., Abbasi, T., & Clarkson, J. (1996). Effective mental health promotion: A literature review. *Health Education Journal*, 1, 55-74.
- Jeong, K. S., & Park, G. J. (2007). Relationships among body image, self-esteem and health promotion behavior in mastectomy patients. *Asian Oncology Nursing*, 7(1), 36-46.
- Kwon, M. Y., & Park, B. Y. (2020). The effect of parental educational background on child health: Focusing on comparison between the low-income and non-low-income groups. *Korean Journal of Social Quality*, 4(3), 35-63.
- Latham, K., & Peek, C. W. (2013). Self-rated health and morbidity onset among late midlife US adults. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*,

68(1), 107-116.

- Leadbeater, B., Thompson, K., & Gruppuso, V. (2012). Co-occurring trajectories of symptoms of anxiety, depression, and oppositional defiance from adolescence to young adulthood. *Journal of Clinical Child & Adolescent Psychology, 41*(6), 719-730.
- Mechanic, D., & Hansell, S. (1987). Adolescent competence, psychological well-being, and self-assessed physical health. *Journal of Health and Social Behavior, 28*(4), 364-374.
- Petersen, A., & Hamburg, B. (1986). Adolescence: A developmental approach to problems and psychopathology. *Behaviour Therapy, 13*, 480-499.
- Pine, D. S., et al. (2005). Attention Bias to Threat in Maltreated Children: Implications for Vulnerability to Stress-Related Psychopathology. *The American Journal of Psychiatry, 162*(2), 291-296.
- Rathi, N., & Rastogi, R. (2007). Meaning in life and psychological well-being in pre-adolescents and adolescents. *Journal of the Indian Academy of Applied Psychology, 33*(1), 31-38.
- Srof, B. J., & Velsor-Friedrich, B. (2006). Health promotion in adolescents: A review of Pender's health promotion model. *Nursing Science Quarterly, 19*(4), 366-373.
- Wiesner, M. (2003). A longitudinal latent variable analysis of reciprocal relations between depressive symptoms and delinquency during adolescence. *Journal of Abnormal Psychology, 112*(4), 633-645.

국문초록

## 청소년 건강지표에 관한 비판적 소고: 종합적 측정의 중요성

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본 논문은 한국 청소년들의 건강상태를 정확히 짚어내기 위한 조치의 일환으로 기존 건강지표들에 대한 비판적 검토를 진행한다. 한국의 청소년 건강지표들은 그간 비만 같은 신체적 건강지표와, 우울 같은 정서심리적 건강지표에 의존해 왔다. 즉 청소년의 건강상태를 신체적·심리적·사회적 측면에서 종합적으로 측정하는 지표가 미흡했다고 할 수 있다. 본 연구는 이 점에 주목해 청소년 건강에 대한 종합적 측정을 시도하는 건강지표의 필요성을 역설하고, 그 일환으로 ‘주관적 건강상태(self-rated health)’에 주목한다. 이 논문은 크게 세 부분으로 구성된다. 첫째, 한국의 청소년 건강측정의 현주소를 파악하기 위하여 관련 현황을 살펴본다. 둘째, 청소년 건강측정과 관련하여 기존의 주요 지표들(예컨대 우울, 자아존중감)에 대해 살펴본다. 셋째, 청소년 건강측정 수준의 발전을 위해 주관적 건강상태(주관적 건강인식)—건강의 종합적 측정을 추구하는—에 대해 살펴본다.

**주제어:** 청소년, 건강상태, 건강지표, 종합적 측정, 주관적 건강상태(주관적 건강인식)

투고일: 2023.07.29. / 심사완료일: 2023.09.08. / 게재확정일: 2023.09.16.