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The promotion of mental health and the prevention of mental health problems in child and adolescent

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Improving mental health and reducing the burden of mental illness are complementary strategies which, along with the treatment and rehabilitation of people with mental disorders, significantly improve population health and well-being. A Institute of Medicine report describes a range of interventions for mental disorders that included treatment and maintenance, reserving the term "prevention" for efforts that occur before onset of a diagnosable disorder. Mental health problems affect 10–20% of children and adolescents worldwide. Despite their relevance as a leading cause of health-related disability and their long lasting consequences, the mental health needs of children and adolescents are neglected. Early intervention can help reduce the significant impacts that children and adolescents with serious mental health problems may experience. Screening is the first step in early intervention, recognizing emotional and behavioral problems and providing help at an early stage. It is essential to implement early intervention in a sensitive and ethical manner to avoid any of the negative outcomes.

Key words: Mental health, Primary prevention, Child, Adolescent

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Introduction

The mental health needs of children and adolescents within Korea and all over the worldwide have received increasing attention in recent years[1]. World Health Organization (WHO) defined child and adolescent mental health (CAMH) as the capacity to achieve and maintain optimal psychological functioning and well-being[2]. Mental health is an essential part of a child's overall health and is a very important part of child and adolescent development. Good mental health during childhood is prerequisite for optimal psychological development, social relationships, learning and the ability to care for one's self. Child and adolescent mental ill-health, on the other hand, is about the inability of a child to reach the optimum level of competence and functioning reflected in disorders, such as depression and learning disabilities. Evidence from systematic reviews of mental health promotion and preventive interventions shows long-lasting positive effects on multiple areas of functioning and producing social and economic benefits[3,4]. In this article, we reviewed the concept of promoting mental health and prevention of mental health problems in children and adolescents. We aimed to focus on adolescents with illnesses such as depression, suicide, attention deficit hyperactivity disorder (ADHD), internet addiction and bullying in Korea. We wanted to determine the proper course of screening as early detection is the first step in defining further assessment.

1. The promotion of mental health and the prevention of mental health problems in children and adolescents

Improving mental health and reducing the burden of mental illnesses are complementary strategies which, along with treatment and rehabilitation of people with mental disorders, significantly improve population health and well-being (WHO, 2005). The distinction between mental health promotion and mental disorder prevention lies in their targeted aims. The aim of mental health promotion is to promote positive mental health by increasing psychological well-being, competence and resilience, and by creating supportive living environments. It is a process aimed at changing environments (social, physical, economic, educational, cultural) and enhancing the 'coping' capacity of communities, families and individuals by conveying knowledge, skills and the necessary resources[5].

The goal of mental disorder prevention is the reduction of symptoms and ultimately of the mental disorder[6]. Caplan's (1964) application of the concepts of primary, secondary, and tertiary prevention, which are common in a public health context, had an influence in developing early prevention models[7]. This conventional classification of prevention is based on the assumption that there is an understanding of the linkage of the mechanisms that cause a disease with the occurrence of the disease. In clinical practice, distinctions between these categories are not as clear-cut as they might appear[8]. Therefore the meaning of concepts in prevention has caused confusion for researchers, policy makers, health workers, and so on. In 1983 the limitations of the conventional definition lead one researcher to propose an alternative classification of prevention that was based on the empirical relationships found in practically oriented disease prevention and health promotion programs[9] (Table 1).

A 1994 Institute of Medicine (IOM) report describes a range of interventions for mental disorders that included treatment and maintenance, reserving the term "prevention" for efforts that occur before onset of a diagnosable disorder[8]. This system incorporates many of the ideas proposed by Gordon regarding prevention, including an adaptation of the concepts of selective and indicated intervention. The committee of IOM classified this piece of framework as 'The Mental Health Intervention Spectrum for Mental Disorders'. The committee contends that while their emphasism is on prevention, it is also necessary to have a classification system that recognizes the importance of the whole spectrum of interventions for mental disorders, from prevention through to maintenance (Fig. 1).

Under this system there are:

- three components to prevention: universal, selective, and indicated
- two components in treatment intervention: case identification and standard treatment for the known disorder, which includes interventions to reduce the likelihood of future co-occurring disorders
- two components in maintenance intervention: the patient's compliance with long-term treatment to reduce relapse and recurrence and the provision of after-care services to the patient, including rehabilitation

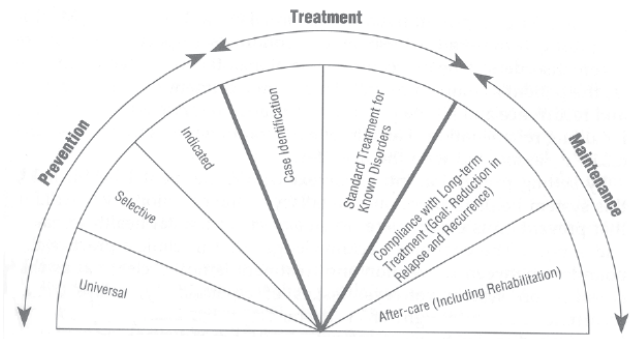

Fig. 1. The mental health intervention spectrum for mental disorders. Adapted from Institute of Medicine (1994, p. 23).

Table 1. Universal, selective and indicated preventive intervention in child and adolescent mental health

Type of prevention intervention	Definition	Example
Universal	Targeted to the general public or a whole population group that has not been identified on the basis of individual risk	Good prenatal care programs to prevent bullying in schools
Selective	Targeted to individuals or a subgroup of the population whose risk of developing mental disorders is significantly higher than average. The risk may be imminent or it may be a lifetime risk. Risk groups may be identified on the basis of biological, psychological, or social risk factors that are known to be associated with the onset of mental disorder	Support for children of parents with a mental disorder Bereavement support groups Psychosocial support for people experiencing physical illness Social support programs to prevent depression for older people in residential care
Indicated	Targeted to high-risk individuals who are identified as having minimal but detectable signs and symptoms foreshadowing mental disorder, or biological markers indicating predisposition for mental disorder, but who do not meet DSM-IV diagnostic levels at the current time	Parenting programs for parents of preschool children who display aggression and noncompliance Programs for children identified at school with some signs of behavior problems

DSM-IV, Diagnostic and Statistical Manual of Mental Disorders-IV.

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2. Significant mental illnesses of children and adolescents in Korea

The modernization of Korea was rapid compared to other countries. Consequently, the people of Korea encounter a dilemma and confusion about how their children should be educated and brought up. This new way of society and the value, instability and confusion related to the control of psychology and behaviors will likely continue, with a corresponding increased risk of mental disorders[10]. The signs of an increased rate of mental disorders in children and adolescents in Korea are clearly visible but there have been a lack of studies on CAMH problems.

In the United States, the prevalence rate of children's behavioral disorders is well documented, with 10% to 20% of children and adolescents being documented as having a mental health disorder[11-13]. On the other hand, child mental health services are underfunded, resulting in children and adolescents not receiving the proper mental health care they need[14]. Among those with a diagnosed disorder, only 20% to 30% receive any specialized mental health treatment in a given year[15,16]. Research findings of a study done in a small city in Korea showed that 10.4% of the parents demonstrated a perceived need for mental health services regarding their child's emotional or behavioral problems, but only 1.9% sought mental health services[17]. It implies that a vast majority of the children did not receive appropriate services. It should be borne in mind that, in addition to those who have a diagnosed mental disorder, many more have problems that can be considered "sub-threshold", in the sense that they do not meet diagnostic criteria. Due to the substantial burdens on the child and the family[18] intervention should be initiated as early as possible, and preventive strategies should be are highly important[19].

1) Depression and suicide

Adolescent mental health has gained attention in South Korea due to an increase in adolescent depression as well as suicide incidences. Depression is one of the most common psychiatric conditions affecting adolescents worldwide and may be one of the most devastating. It is estimated that 4–8% of adolescents are suffering from major depressive disorder, and by the age of eighteen, about 20% of adolescents will have experienced the symptoms of clinical depression[20,21]. A sense of guilt or worthlessness may drive teenagers to feel that telling others about their discomfort will make them a burden or reveal to others that there is something 'wrong' with them. Thus the outward signs of depression may be faint compared to those of many other mental health problems and are often mistaken for the moodiness and behavioral changes that are part of normal adolescent development. Study results in Korea showed that the lifetime prevalence for adolescent depression is reported to be as high as 20%[22,23], emphasizing that Suicide in adolescents is a pervasive and important mental health problem in Korea. Adolescent suicide is the second leading cause of death for adolescents[24].

2) Attention deficit hyperactivity disorder

ADHD is a chronic condition that affects children, adolescents, and adults. ADHD affects 5–8% of children and adolescents, and it is believed to be the most common mental disorder diagnosed in childhood[25]. Approximately 65% of children with ADHD continue into adolescence with symptoms related to their illness[26]. The spectrum of ADHD varies from childhood to adolescence, making ADHD more difficult to diagnose in adolescents because observable hyperactivity, seen more commonly in preadolescents and young children is less likely to be reduced in teens[27]. Several Korean studies were done reporting prevalence rates for ADHD from 5% to 7%[28,29].

3) School bullying

Bullying is now widely defined as a 'systematic abuse of power'[30] and more specifically as intentional aggressive behavior that is repeated against a victim who cannot readily defend themselves[31]. Over the last decade, a well-known and popular term for bullying in South Korea has been 'wang-ta' which is a kind of rejection and isolation of an individual by peers[32]. The prevalence of bullies, victims, and bullies/victims was 12.0%, 5.3%, and 7.2%, respectively[33]. Students who were involved in school bullying had a significantly high risk of suicide ideation and suicidal behavior when compared with individuals who were not involved in school bullying[34]. The risk factor that bullying could lead to suicide in children and adolescents needs to be clearly assessed and an intervention strategy set up.

4) Internet addiction

Most recently, a new form of behavioral addiction has emerged. Internet use in Korea has increased rapidly and has become a major part of daily life. Many children and adolescents indulge themselves in Internet surfing and personal computer games at home or at Internet cafés which are equipped with high-speed Internet access. More than 90% of Korean adolescents are using the Internet and the prevalence of Internet addiction is reportedly 4.3% among 7th–12th grades[35]. Internet addiction seems to serve various functions, such as experimental relationships, portraying a different identity, a sexual outlet, and a means for relieving depression and social isolation. Severe forms of Internet addiction seem to accompany frequently serious comorbidities like ADHD, depression and others[36,37]. This area of mental health problems needs to be looked into more thoroughly.

Screening mental health problems in children and adolescents

There are many reasons why effective mental health interventions for children and adolescents should be developed.

1) Specific mental disorders occur at specific stages of a child and adolescent's development, screening programs and interventions for such disorders can be targeted to the stage at which they are most likely to appear; 2) there is a high degree of continuity between child and adolescent disorders into adulthood, early intervention could prevent or reduce the likelihood of long-term impairment; 3) effective interventions can reduce the burden of mental health disorders on the individual and the family; 4) the majority of children and adolescents who do not receive treatment may experience significant negative outcomes.

Mental health screening is a brief, culturally sensitive process designed to identify children and adolescents who may be at risk of having an impaired mental health, warranting immediate attention, intervention or referral for diagnostic assessment[38]. The primary purpose for screening is to identify the mental health problems, using a valid, reliable screening tool and whether or not they need further assessment. From a public health perspective, schools are an ideal place for identifying children and adolescents with possible mental health problems because they offer the opportunity to reach large numbers of youths. In fact, school-based mental health services represent the most commonly accessed interventions for child and adolescents with mental health problems, making schools the primary providers of mental health services to children and adolescents[39]. From an educational perspective, the identification and early intervention of mental health problems among child and adolescents is important. There is a growing recognition that attention and intervention to students' mental health functioning in school may promote learning and prevent the onset of the negative outcomes associated with untreated mental health problems[40]. Recently, many school-based mental health interventions have been rigorously pay attention to and found to improve both educational and mental health functioning[41]. Harrington reviewing possibilities for the prevention of adolescent depression, drew together some of the possible adverse effects of prevention[42].

Table 2 currently implemented in Korea provides a listing of mental health screening and assessment tools, summarizing their psychometric testing properties, key references.

Screening is the first step in early intervention. But the way it is implemented needs to be done cautiously not to cause any negative outcomes.

National alliance on mental illness calls on federal, state and local leaders to immediately take affirmative steps to implement mental health screening for children and adolescents, with the following guidelines protective concept which we will base our Korean guidelines on school based mental health screening.

1. Mental health screening must be voluntary and available for all children.
2. Parental consent or consent from legally authorized surrogates must be obtained for all mental health screening.
3. Mental health screening must not be used in a discriminatory manner.
4. All individuals administering mental health screening must be appropriately trained and qualified both to administer

Table 2. Mental health screening tools in child and adolescent

Tools and description	Number of items format	Age	Psychometric properties
SDQ[33,43] General psychosocial screening for emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior (not included in score); a separate scale assesses impact of symptoms on global functioning	25 items Self-administered Parent, teacher, or youth 11 to 17 yr	3–17 yr	Reliable and valid in various populations and for a number of general mental health conditions Sensitivity: 63% to 94% Specificity: 88% to 98%
CBCL[44,45] DSM-oriented scales assess for (1.5 to 5 yr)	Parent or caregiver/teacher for 1.5 to 5 yr: 99 items Parent/teacher: 118 items Direct observation	1.5–5 yr 6–18 yr	Test-retest: 0.95 to 1.00 Interrater reliability: 0.93 to 0.96 Internal consistency: 0.78 to 0.97
ADHD Rating Scale-IV[46] Rates symptoms in domains of attention, impulsivity/hyperactivity	Parent, teacher 18 items	5–17 yr	Internal consistency (coefficient alphas) for inattention and hyperactivity-impulsivity factors greater than 0.90, test-retest reliability greater than 0.80 for both factors
CDI[47,48] Screens for depression	Parent: 17 items Teacher: 12 items Youth: 27 item	7–17 yr	Internal consistency coefficients Range from 0.71 to 0.89 and the test-retest coefficients range from 0.74 to 0.83
BDI[49,50] Screens for depression	21 items Self-administered or verbally	14 yr+	Sensitivity: 84% Specificity: 81%

SDQ, strengths and difficulties questionnaire; CBCL, child behavior checklist; DSM, Diagnostic and Statistical Manual of Mental Disorders; ADHD, attention deficit hyperactivity disorder; CDI, Child Depression Inventory; BDI, Beck Depression Inventory.

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the screening instruments and to interpret the results.

5. All information related to screening must be kept strictly confidential and the privacy of youth and their families must be protected.
6. All mental health screening instruments must be shown to be reliable and effective in identifying children in need of further assessment.
7. Validity studies must be done to ensure that screening instruments are culturally and linguistically appropriate and administered in a manner appropriate for culturally and racially diverse communities.
8. Schools must never use mental health screening results or the refusal to consent to screening as a basis for any adverse action against a child or family.
9. All children identified through screening as potentially requiring mental health services must be referred for an immediate comprehensive mental health evaluation by a qualified and trained professional.
10. Children ultimately identified as requiring mental health services must be immediately linked to and offered appropriate treatment and services and provided with comprehensive information about treatment options, the mental health treatment system, and family and community support resources.

Conclusions

Preventive programs have demonstrated some positive results among all age groups with any mental health disorder. A review of the literature provides evidence to conclude that primary preventive interventions can be effective for preventing psychopathology and promoting positive development, particularly in high-risk children and adolescents. Additional research is needed to further investigate the utility of various preventive approaches and to understand their lifetime impact on positive mental health. Among the advantages of universal programs is the reduced risk of the potentially deleterious effects of labeling which may be more likely in targeted interventions whose screening instruments will undoubtedly produce 'false positives'. Further studies into the preventive intervention methods are needed.

Conflict of interest

No potential conflict of interest relevant to this article was reported.

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