SPECIAL ARTICLE

eISSN 2233-9183

J Korean Acad Child Adolesc Psychiatry 2023;34(1):4-14
https://doi.org/10.5765/jkacap.220034

Introduction of Child and Adolescent Mental Health Services in Korea and Their Role During the COVID-19 Pandemic: Focusing on the Ministry of Education Policy

Seo Jung Kim[1] and Jongha Lee[2]

[1]Department of Education, Ewha Womans University, Seoul, Korea
[2]Department of Psychiatry, Korea University Ansan Hospital, Ansan, Korea

This study aimed to discuss mental health services for children and adolescents that are being implemented as initiatives of the Korean government and to review the functions and roles of these projects during the COVID-19 pandemic. Three government departments are in charge of providing mental health services for children and adolescents: Ministry of Education, Ministry of Gender Equality and Family, and Ministry of Health and Welfare. The Ministry of Education has implemented several policies to facilitate the early detection of mental health issues among school students (from preventive interventions to selective interventions for high-risk students). The Ministry of Gender Equality and Family additionally serves out-of-school children and adolescents by facilitating early identification of adolescents in crises and providing temporary protection or emergency assistance (as required) through the Community Youth Safety-Net Project. Furthermore, the Ministry of Health and Welfare operates relevant mental health agencies for individuals of all ages including children and adolescents. Any high-risk students who have been screened through the projects of the Ministry of Education are supported through referrals to the following institutions for appropriate treatment of their symptoms: specialized hospitals, the Youth Counseling and Welfare Center operated by the Ministry of Gender Equality and Family, the National Youth Healing Center, the Mental Health Welfare Center operated by the Ministry of Health and Welfare, the Suicide Prevention Center, and the Child Welfare Center. To assist students who are facing any psychological difficulties because of the COVID-19 pandemic, the Ministry of Education has established a psychiatric support group for providing emergency mental health care; furthermore, schools are promoting psychological surveillance (e.g., provision of non-face-to-face counseling services that are centered around the Wee Center). The Ministry of Education, Ministry of Gender Equality and Family, and Ministry of Health and Welfare have provided varied mental health support services in order to address the challenges faced by children and adolescents during the pandemic. Nevertheless, the mental health services operated by each ministry do show some limitations because their service provision system is insufficiently collaborative. The present study discussed the positive effects of each initiative as well as its limitations; furthermore, it suggested improvements for facilitating the healthy development of children and adolescents' mental health.

Keywords: Child; Adolescent; Schools; Mental health services; COVID-19.

Received: November 10, 2022 / **Revised:** December 8, 2022 / **Accepted:** December 8, 2022
Address for correspondence: Jongha Lee, Department of Psychiatry, Korea University Ansan Hospital, 123 Jeokguem-ro, Danwon-gu, Ansan 15355, Korea
Tel: +82-31-412-5140, Fax: +82-31-412-5132, E-mail: jonghalee@korea.ac.kr

INTRODUCTION

Children's surrounding environments can heavily affect their childhood and adolescence, which are periods of physical and mental development; consequently, their risk of developing mental illnesses may increase. Korean children and adolescents are particularly considered to be at risk of experiencing mental health deterioration because of the excessive school entry competition, academic stress, and lack of sleep and leisure time they face. Previous research has shown that the number of children and adolescents in Korea receiving treatment for mental illness has increased steadily [1]. This figure has increased from 220587 in 2016 to 271557 in 2020, especially among children and adolescents aged between 10 and 19 years. Children aged under 10 years have been diagnosed mainly with neurodevelopmental disorders (e.g., attention deficit hyperactivity disorder, specific developmental disorders, and tic disorders), while children and adolescents aged over 10 years have experienced a steep increase in diagnoses for depression, anxiety disorder, and adjustment disorder. Considering the Korean education system, the most common mental illness diagnoses for these demographics have been presumed to be as follows: neurodevelopmental

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (https://creativecommons.org/licenses/by-nc/4.0) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

 Copyright © 2023 Korean Academy of Child and Adolescent Psychiatry

disorders during elementary school and depression and anxiety during middle and high school.

Adolescent mental health issues are recognized as constituting a severe social problem in Korea. Over the last decade, suicide has been reported as the most common cause of death among Korean adolescents, and suicide rates for this demographic have also been increasing [2]. Furthermore, the number of adolescents committing non-suicidal self-injury has increased dramatically, with a large number of adolescents reporting self-injuring behaviors [3,4]. According to the Korea Youth Risk Behavior Web-based Survey, which is conducted annually by the Korea Disease Control and Prevention Agency, 45.6% of girls and 32.3% of boys reported feeling very stressed in 2021 [5]. The same report found that 26.8% of adolescents had experienced sadness or hopelessness to the point of stopping their daily life for two weeks or longer, and 12.7% reported experiencing suicidal ideation [6]. Adolescent depression rates in Korea have been consistently reported to be high, with approximately 10% of adolescents reporting suicidal ideation [7-9].

Only early detection, treatment, and prevention of mental health issues can facilitate healthy mental health management. However, in Korea, the availability of appropriate mental health care services has remained low because of a strong social prejudice against mental illness [10]. Thus, parents and school teachers' lack of mental health awareness may cause delays in children and adolescents' referrals to psychiatric services, thus leading to negative consequences [11]. While such attitudes have been diminishing because of various mental health campaigns, children and adolescents who have not yet received adequate mental health care form a social issue that must be addressed. Families, schools, and communities must collaborate in order to provide effective mental health care for children and adolescents. Children and adolescents spend the longest amount of their time in schools, which therefore have a significant impact on their mental health. Subsequently, it has been suggested that establishing a system of school-based mental health services may be effective [12-14].

This study aimed to introduce Korea's school-based mental health service system. Several government departments provide services in order to improve students' mental health. However, there have been some limitations in utilizing these mental health services because it has been found that many mental health professionals—to say nothing of students, parents, and teachers—have no clear knowledge of the mental health services available for children and adolescents. This study presents the pros and cons of the current policy and discusses its achievements and limitations. It also discusses the role and limitations of these policies during the COVID-19 pandemic and proposes some policy changes that could be necessary in Korea in the future.

SCHOOL-BASED MENTAL HEALTH PROJECTS ORGANIZED BY THE MINISTRY OF EDUCATION

In addition to reactive interventions for high-risk students, the Ministry of Education also organizes school-based mental health projects as preventive interventions for all students, thus approaching them proactively. Its key projects can be categorized as follows: the Wee Project, Students' Emotional and Behavioral Screening Questionnaires, Mental Health Professional School Outreach Project, and School Crisis Intervention Support Project.

The Wee Project

After school violence emerged as a major social issue in 2008, the Korean government began to promote the Wee (We+Emotion+Education) Project, which is part of its establishment of an integrated school safety management system, in order to create a support system for students in crisis (e.g., those suffering from school maladjustment caused by school violence) [15]. The necessity and role of the Wee Project has gradually increased, and it is now a school counseling system available to all students. It is a safety net that can protect a healthy school life for all students by implementing certain comprehensive measures (e.g., the prevention and treatment of students' mental health issues as well as the provision of relevant educational programs). The collaborative Wee Project system connects schools, Metropolitan and Provincial Offices of Education, and communities; this "class-center-school" three-stage multilayered safety net system provides diagnoses, counseling, and treatment programs for students in need [15-17].

The Wee Class, which is the primary safety net, refers to the school counseling office, which is installed in schools; there are 8059 such facilities in operation as of August 2021. This project also assigns specialized counseling teachers or counseling specialists to schools; they conduct early detection and counseling activities for students with maladjustment issues at school. Students who cannot be supported at the school level are referred to the Wee Center, which also links such students to more professional interventions. The Wee Center, a secondary safety net, is a student counseling and support facility that is installed in the Metropolitan and Provincial Offices of Education; there are 206 such facilities in operation as of August 2021. Specialized counseling teachers, clinical psychologists, counseling specialists, and social workers provide counseling and treatment for students, who

are provided with relevant referrals by their schools; they support students in crisis by connecting them with relevant agencies in the community. The Wee School, a tertiary safety net, is a commissioned educational facility that is installed in the Metropolitan and Provincial Offices of Education; there are 15 such facilities in operation as of August 2021. Teachers, specialized counseling teachers, counseling specialists, clinical psychologists, social workers, and youth workers provide long-term counseling and educational curriculums, career education, and after-school activities for students who are in deep crisis and thus require long-term care. The Home-type Wee Center provides housing care, education, counseling, and treatment for students who are experiencing home, school, and personal crises. The Hospital-type Wee Center is an alternative educational institution that offers referral treatment such as counseling, education, treatment, and specialist hospital treatment for students facing mental health crises. It can provide specialist-centered proactive services such as psychiatrists, mental health professionals, alternative curriculum teachers, youth counselors, and nurse practitioners in order to provide specialized counseling, student and caregiver counseling, health checkups, and psychological assessments.

The Wee Project has received a positive appraisal for attempting to systemize school counseling by using national budgets and policies and for raising awareness about students' adjustment skills and school counseling [18]. Several reports suggest that students have been restoring their self-identity, establishing a vision for their future, developing specific career plans, improving their academic achievement, and decreasing their rates of absence without notice and dropouts [19,20]. It has been found that suicide rates, suicidal ideation, and depression experiences among students have significantly decreased since the establishment of the hospital-type Wee Center, thus demonstrating that this type of Wee Center can provide high-risk students with the professional attention they need [21]. Wee Schools have also reported positive results in terms of improving students' school adjustment abilities [22]. As such, Wee Project services comprehensively manage several issues that could emerge throughout the development of children and adolescents.

Despite the fact that there have been many positive changes in the adjustments of students using the Wee Project, concerns about some related structural issues are now being voiced. It has been pointed out that, although specialized counseling teachers are conducting practical work in schools, their work load is increasing, and their duties have not been specified clearly; this has led to much confusion in policy implementation whenever there are changes in the higher law [23,24]. Specialized counseling teachers have a considerable practice scope in terms of practically enforcing the various education and student counseling policies promoted by the Ministry of Education and Metropolitan and Provincial Offices of Education. However, they are alleging many work grievances because of insufficient counseling staff and resources [25]. Due to the increasing importance of hospital connections, their work burden has increased further, as they are also being assigned the task of connecting pediatric psychiatric hospitals to specialized medical institutions. Thus, many conflicts regarding the role and duties of a specialized counseling teacher can be linked to exhaustion; this situation must be addressed at the institutional level.

Emotional and Behavioral Screening Questionnaires for students

Emotional and Behavioral Screening Questionnaires are conducted for students by the Ministry of Education; the aim is to achieve early screening of high-risk students with regard to mental health. It aims to ensure that any students who have been screened early through the test are referred to appropriate specialized institutions. After the amendment of the School Health Act in 2006, Emotional and Behavioral Screening Questionnaires have been administered at to students at a few schools since 2007 in order to comprehensively prevent and manage students' mental health illnesses through the identification of mental health states and the early detection of mental illness among students. The practice has been expanded to cover all students (first and fourth graders in elementary school and first graders in middle school and high school) in the country since 2012. The screening tests were conducted using an online self-report method; they provide a system for classifying students into normal and interest groups (general management group and priority management group) based on the level of risk for mental health problems and then connect students who have been classified as high-risk to specialized institutions (Fig. 1).

Parents answered the Child Personality and Mental Health Screening Questionnaire, second version (CPSQ-II), for elementary school students, and the students themselves responded to the Adolescent Personality and Mental Health Problems Screening Questionnaire, third version (AMPQ-III), for middle- and high-school students. These screening tests are not intended for carrying out diagnoses, and they contains items regarding personality characteristics, risk factors, and emotional and behavioral problems [26-28] (Table 1). Case management was performed based on the results. For instance, certain necessary measures must be taken in order to provide assistance to a student at risk of suicide, including personal interviews, informing the parents, referring the student to specialized institutions such as sui-

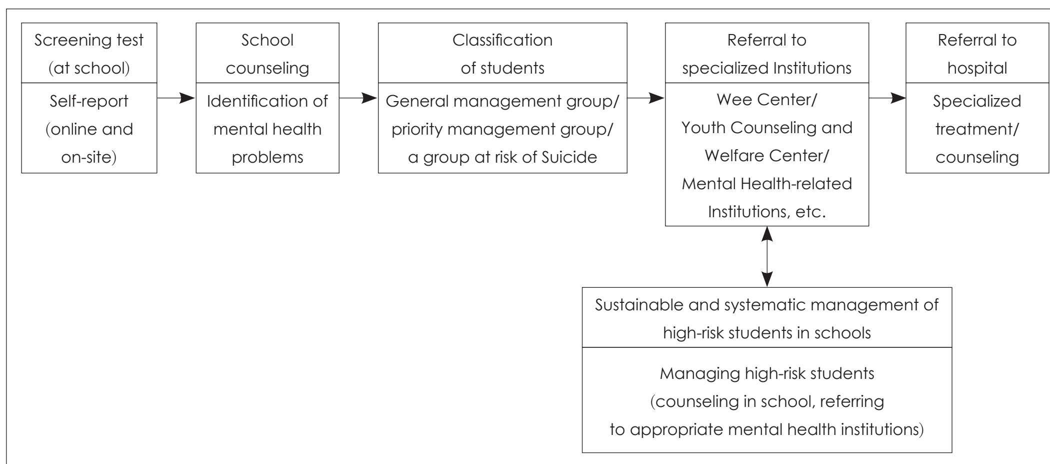

Fig. 1. The process of Emotional and Behavioral Screening Questionnaires.

Table 1. Student emotional behavior assessment

Factors	Elementary school students CPSQ-II (Child Personality and Mental Health Screening Problems Screening Questionnaire, second version)	Middle and high school students AMPQ-III (Adolescent Personality and Mental Health Problems Screening Questionnaire, third version)
Personality characteristics	Internal: sincerity, self-esteem, openness External: interpersonal understanding, sense of community, proactivity	Internal: sincerity, self-esteem, openness External: interpersonal understanding, sense of community, proactivity
Risk factor	Victim of bullying	Victim of bullying Suicide-related factors: suicide ideation, suicide plan
Family factor	Family relationship	
Emotional/ behavioral factors	Attention problems: attention deficit hyperactivity disorder, conduct problems Mood problems: psychological trauma response, anxiety disorder, depression, somatization, obsessive-compulsive disorder Learning difficulty and poor social skills: language disorder, social communication disorder, intellectual disability, learning disorder, autism spectrum disorder, obsessive-compulsive disorder Irritability and oppositional defiant behavior: depression, disruptive mood dysregulation disorder, oppositional defiant disorder, conduct disorder	Psychological distress: self-harm, suicide, victim of bullying, idea of reference, eating problems Mood problems: depression, disruptive mood dysregulation disorder, bipolar disorder, somatization, obsessive-compulsive disorder Anxiety problems: anxiety about academic and social situations, etc. obsessive-compulsive disorder, psychological trauma response, auditory hallucination, Idea of reference Self-control difficulties: learning difficulty, attention deficit hyperactivity disorder, conduct disorder, Internet or smartphone addiction
Others	Overall quality of life, experience of counseling, preference for support	Overall quality of life, experience of counseling, preference for support

cide prevention centers, and recording and managing the matter [29]. These tests aim to present customized educational proposals that are tailored to students' personality traits and to create a foundation for the systematic management of students in and out of school (e.g., responding to emotional and behavioral problems, managing students at risk of suicide, and early detection and management of school violence) [29].

The tests can evaluate students' mental health, and as a result of increased interest and support from parents and schools for students in high-risk groups. There have been positive outcomes for prevention and treatment (e.g., increased connection to community institutions that specialize in mental health) [30]. In particular, mental health management projects for all students are regarded as unusually preeminent and proactive worldwide [28]. However, there is also a limitation in that high-risk students may not be screened because of false reports, as emotional and behavioral screening is conducted using a self-report method. Furthermore, the need for post-screening follow-up has been raised at schools

because, in many cases, even when a student is classified into a management group after the screening test, the parents refuse treatment, and referral to a specialized institution is not made.

Mental Health Professional School Outreach Project

Despite the implementation of Emotional and Behavioral Screening Questionnaires for students in an effort to provide early screening and appropriate intervention for those in mental health crisis, many incidents have occurred where selected children and adolescents rejected the specialized treatment for various reasons. The burden of testing has increased in the school frontline, as there has been some conflict between teachers who wish to connect high-risk students to specialized institutions and parents who prefer to have the issue managed within the school [31]. Additionally, the need to connect with the community in order to utilize professional resources has increased, as there is a limit to responding with only the members of the schools. To compensate for this, the Students' Mental Health School-Community Cooperative Model was introduced in 2013, and a mental health support system for students was established through cooperation with communities around schools [32]. The Ministry of Education conducted a "Mental Health Professional School Outreach Project" in which mental health professionals visited schools in person and supported students, caregivers, and teachers for three years (from 2016 to 2018); these services were provided to students who experienced restricted access to specialized medical services because of the burden of medical expenses or caregivers' preconceptions and lack of awareness. Approximately 25% of the students in the high mental health risk group were screened into the interest group after the Emotional and Behavioral Screening Questionnaires' results showed that students reported having difficulty connecting with external specialized agencies after the cessation of the project. With the outbreak of the COVID-19 pandemic, the Mental Health Professional School Outreach Project was promoted again in 2021 because of a greater emphasis on school-based mental health intervention measures.

The Mental Health Professional School Outreach Project was modeled based on Singapore's Response, Early Intervention, and Assessment in Community Mental Health (REACH) and restructured to suit the Korean context. REACH provides necessary services by forming a team of mental health professionals and visiting schools when a school requests the service. It has been deemed a successful policy because it provides in-school clinical evaluation and refers students to specialized institutions based on the results [33]. Similar to REACH, the Mental Health Professional School Outreach Project was established at each of the 17 Metropolitan and Provincial Offices of Education. When a school requests this service, a team of mental health experts (pediatric psychiatrists, mental health professionals, counseling psychologists, clinical psychologists, social workers, and nurses) visits the school, conducts in-depth mental health assessments of the students, and suggests appropriate intervention strategies to help them connect with treatment facilities (Fig. 2). If treatment at a specialized institution is considered to be necessary, the government provides funding for the treatment, and aid is provided in order to prevent students from forfeiting the treatment due to economic difficulties.

The Mental Health Professional School Outreach Project differs from other existing projects in that mental health professionals directly visit schools, reduce the burden on students, who would otherwise have to go to specialized external institutions, provide consultation to students, caregivers, and teachers, and recommend long-term therapeutic intervention strategies [34]. Ultimately, the project provides appropriate student discipline and guidance methods to caregivers and teachers, thus raising the opportunities of families and schools to strengthen their ability to effectively cope with students' mental issues within schools [34].

However, because the project is in its early stages, there is still a lack of sufficient understanding regarding initiatives between the Ministry of Education representatives and schools;

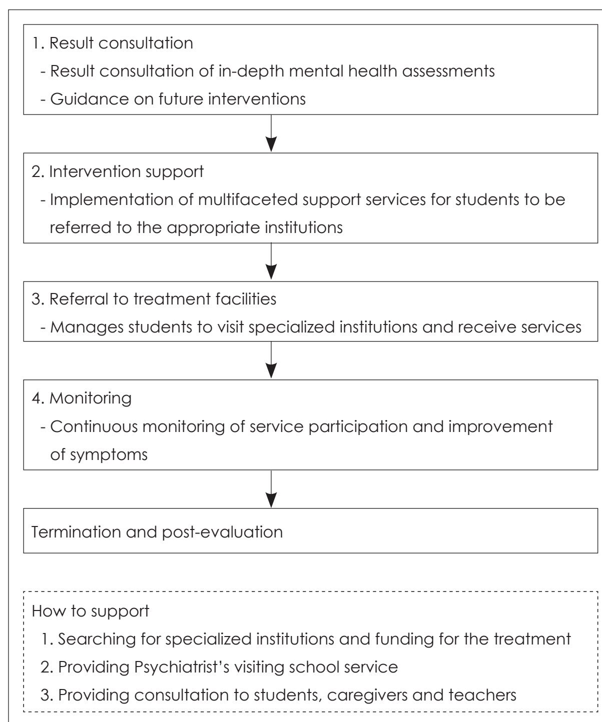

Fig. 2. The Process of Mental Health Professional School Outreach Project.

furthermore, regional variations in the mental health care infrastructure have caused various regional differences in its effectiveness. There is also a limitation in that the project does not provide treatment in a timely manner even if high-risk students and their caregivers agree to accept the treatment because of cases where there are no available specialized institutions to accept referrals or there is thus a long waitlist. In some areas, the number of mental health professionals available to visit the school is insufficient; therefore, visits and interventions may not be possible at an appropriate time even if a school requests the service.

CHILDREN AND ADOLESCENT MENTAL HEALTH PROJECTS ORGANIZED BY THE MINISTRY OF GENDER EQUALITY AND FAMILY

The Ministry of Gender Equality and Family is implementing early detection, temporary protection, and emergency assistance for at-risk adolescents through the Community Youth Safety-Net Project (CYS-Net) [35]. The CYS-Net is a social system that provides assistance to adolescents in crisis; young people can request services via phone by using the contact numbers 1388 or 110 or by contacting the Counseling and Welfare Center for Youth. Furthermore, the Ministry of Gender Equality and Family operates the Youth Counseling and Welfare Center, which provides counseling and educational support for out-of-school youth, and the National Youth Healing Center, which provides assistance to youth with emotional and behavioral difficulties. The ministry is also conducting a diagnostic survey on Internet and smartphone usage habits and treatment support for overdependent users in the following demographic: school-transitioning children and adolescents (fourth graders in elementary school and first graders in middle and high schools).

Youth Counseling and Welfare Center

Since the Ministry of Education Policy was directed at students attending school, it has been pointed out that adolescents who do not attend school are not provided with adequate support [36]. Out-of-school adolescents could thus be at high risk of developing physical and mental health issues because of the risk of exposure to dangerous environments [36-38]. Furthermore, prejudice against out-of-school youth may also affect their self-esteem and feelings of depression [39]. Institutional complements targeting out-of-school youths have been attempted in line with these social needs. At the beginning of the project, the dropout youth support project (Haemil) and the youth self-reliance academy (Do Dream Zone Project) were operated. The Youth Counseling Welfare Center was established in 2015, and out-of-school adolescent support centers (KDream Center) were expanded and established across the country [40].

The Youth Counseling and Welfare Center supports children and adolescents (aged 9–24 years) who have deferred their duty to attend elementary or middle school, have not entered high school, have been expelled, or have dropped out. As of 2022, 240 Youth Counseling and Welfare Centers are in operation across the country, and these are staffed by youth counselors, youth advisors, and social workers with hands-on experience in youth counseling and welfare. Youth counseling centers are responsible for providing counseling and education-, vocation-, and self-reliance-related support. Since the project is aimed at out-of-school youth, if a youth requests such assistance, the center provides the youth with help for preparing for college entrance qualification examinations or school return. The centers also help adolescents seeking employment find work by referring them to job shadowing or occupational training [41].

National Youth Healing Center

The National Youth Healing Center provides services to adolescents who require help because of emotional, behavioral, and Internet overdependence issues. It aims to promote healthy lifestyles and growth through psychological and emotional stabilization and behavioral changes. The Korea Youth Hope Foundation has been in charge of the center since 2012; there are currently two centers in operation: one in Yongin, Gyeonggi-do province, and one in Daegu Metropolitan City [42,43].

The main difference between the National Youth Healing Center and other centers operated by other national ministries is that it operates as a system for youth to enter and stay in residential facilities. The National Youth Healing Center operates three entry systems for youth living in social welfare facilities and out-of-school youth. The four-week Oreum course and the 16-week Didim course are provided to adolescents aged 13 to 18 years, who have emotional or behavioral issues (e.g., depression, anxiety, and impulsivity, and difficulties at school or in interpersonal relationships). The Center also is the “e-world Dream Guardian” course for children and adolescents aged 9 to 18 years who are overdependent on the Internet and smartphones. The National Youth Healing Center provides play, art, music, and group psychological rehabilitation therapy. It is responsible for referring participants to appropriate specialized institutions after treatment. The advantage of the National Youth Healing Center is that the school attendance of incoming students is recognized, making them less likely to be held back for long-term absences, and the risk of academic interruption is lower when

grades are notified to the original school by conducting exams during the period of admission. However, there are few slots available for admission compared to the number of adolescents seeking admission, and the inability of many to use the center remains an unresolved problem.

CHILDREN AND ADOLESCENTS MENTAL HEALTH PROJECTS ORGANIZED BY THE MINISTRY OF HEALTH AND WELFARE

Mental Health-Related Institutions

The Ministry of Health and Welfare's mental health initiatives include the Mental Health Welfare Center, Suicide Prevention Center, Community Addiction Management Center, and mental health-related institutions, which work with individuals of all ages who have mental illnesses; these institutions include those that only support children and adolescents [44]. As of 2022, there are 16 mental health welfare centers, 246 basic mental health welfare centers, 50 community addiction management centers, and six independent suicide prevention centers in operation. The aim has been to provide integrated care for patients with mental illness, reduce the rate of rehospitalization, and provide comprehensive mental health services. It also conducts mental illness prevention and awareness campaigns in an effort to increase the early detection and treatment of mental illnesses and help those who have not received treatment because of financial reasons through treatment funding. In the case of children and adolescents, those who are identified as being high-risk through the Emotional and Behavioral Screening Questionnaire for students in school can be referred to the center, the caregiver or the child can request the service themselves, and preschoolers can also use the service. The Suicide Prevention Center's primary task is serving people who have tried to commit suicide or have suicidal ideations. Children and adolescents are referred to the center through an emergency medical institution after a suicide attempt, or through a caregiver after a school official becomes aware of a student's suicidal ideation or suicide attempt. In the case of repeated self-injury, the Mental Health Welfare Center and Suicide Prevention Center are responsible for case management, which varies based on region. The Community Addiction Management Center targets citizens with addiction problems (e.g., alcoholism, gambling, and Internet use addiction). The problem of Internet overuse and addiction in children and adolescents has continued to increase, and crimes resulting from drug use and Internet gambling addiction among adolescents have recently been on the rise; thus, sufficient personnel are necessary for providing professional responses [45,46].

National Child Protection Agency

The National Child Protection Agency is operated and managed by the National Center for the Rights of the Child, with 81 National Child Protection Agency offices operating throughout the country as of 2022 [47]. The National Child Protection Agency aims to create a stable environment for children's growth by preventing child abuse and actively protecting affected children. The tasks of the National Child Protection Agency have changed because of amendments to the Child Welfare Act of 2020. Operations for the reception of child abuse reports, on-site investigation and emergency protection, and installation of a statement recording room for the investigation of the affected child have been removed. Currently, Child Protective Services are responsible for providing counseling; treatment; education for child victims, families, and perpetrators; education and promotion regarding child abuse prevention; and follow-up care for the affected children and families [48].

MENTAL HEALTH OF CHILDREN AND ADOLESCENTS AND MENTAL HEALTH SERVICES DURING THE COVID-19 PANDEMIC

The first COVID-19 cases were reported in Korea in January 2020, and the number of confirmed cases has increased dramatically since February. Socially, owing to social distancing policies, children and adolescents have experienced rapid changes in their surroundings [49]. The exacerbation of mental health problems in children and adolescents was a concern, and studies during the early days of the COVID-19 pandemic also suggested that the number of children experiencing anxiety and depression increased during the pandemic [50-52]. During the pandemic, mental health studies on Korean adolescents showed various changes in their rates of stress awareness and feelings of depression. The number of confirmed COVID-19 cases increased dramatically, contrary to the initial projections, and the rates of stress awareness and feelings of depression decreased when classes were mainly held online in 2020. However, the rates increased again when adolescents returned to school and society in 2021. These results were presumed to be related to the temporary reduction in academic, interpersonal, and social stress experienced by adolescents [8].

When the number of confirmed cases began to increase, the Ministry of Education established a response system by establishing the Ministry of Education's COVID-19 Countermeasures Division. School on-site attendance was temporarily stopped in order to prevent the spread of infectious diseases and protect students' physical health. However, as the

pandemic continued, the ministry started online schools in stages (starting in April 2020) in order to prevent possible emotional difficulties among students who were experiencing social isolation and to prevent academic disruption. A mental health support team of approximately 120 psychiatrists from the Ministry of Education was formed to provide counseling support and 24-hour mobile counseling for students and teachers struggling emotionally. Furthermore, the Ministry actively promoted institutions where students could receive counseling and advocated early recognition of crises in the home through the distribution of parent education materials. When the Ministry identified any children or adolescents suspected of having a worsened psychological condition through the above process, it also took responsibility for referring them to the appropriate treatment institution through Wee Class and Wee Center. Students were scheduled to return to school in person in 2021; however, there were concerns regarding their mental health related to readjustment during school return. Difficulties in readjustment were expected, as the students had had a less consistent life for a year compared to their usual lives. Against this background, the Mental Health Professional School Outreach Project began in 2021. This project provides school crisis intervention support in order to facilitate the normalization of school functions and the psychological recovery of members in the event of a crisis, such as student suicides and infectious disease, and provides online student counseling services. The Mental Health Professional School Outreach Project provided a great amount of support to children and adolescents who experienced mental health issues while attending school. For instance, children who experienced deterioration in their home environment or domestic discord in isolated households due to the COVID-19 pandemic experienced deterioration in their mental health during the pandemic [53] and were not adequately treated due to parental apathy or negative perceptions of mental health care and treatment. The Mental Health Professional School Outreach Project improved student and caregiver awareness through school visitation projects and positively influenced school staff awareness and capacity-building.

However, despite much effort, the number of self-injuring students increased after school started again, and teachers' emotional difficulties (e.g., the burden and stress of providing student guidance) also increased. This phenomenon was particularly pronounced among teachers with less experience. To combat this, the Ministry of Education and School Mental Health Resources and Research Center, in cooperation with the Korean Neuropsychiatric Association, provided emergency psychological support to school staff. School stabilization was promoted through in-person and telephone counseling, and teachers' satisfaction with the teaching staff emergency counseling support was found to be high. The Student Mental Health Resources and Research Center provided psychological support for faculty members who needed psychological support because of student suicide and self-injury, COVID-19-related anxiety, depression, and stress; it also provided four sessions of in-depth psychological support for faculty members who required trauma healing because of student suicide or attempted student suicide. In response to the prolonged pandemic, healing camps for teachers who experienced occupational burnout were provided to create a healthy school environment.

Many mental health service providers need a period of adaptation to change during the pandemic. Most of the mental health services mentioned above were based on face-to-face consultations with high-risk groups, and the accessibility of service users was limited in the early days of the pandemic. This issue was even more notable in institutions that did not expect the pandemic to be prolonged. Counseling for adolescents who had attended regular sessions before the start of the pandemic was temporarily discontinued, and there were limits to helping them recover from mental health issues. Although telephone, online, and video counseling have been actively introduced, in addition to youth online counseling services that have been in operation since the prolongation of the pandemic, evidence for the emotional recovery effect through non-face-to-face counseling is still insufficient. There is still insufficient evidence in terms of effectiveness. In particular, in the case of the Wee Center, which did not conduct non-face-to-face counseling, the sudden introduction of non-face-to-face consultations without sufficient system construction raised difficulties for both counselors and students [54]. The Mental Health Professional School Outreach Project has also attempted to manage adolescent mental health during the pandemic; however, issues remain unresolved. The first is the high level of professionalism of mental health practitioners. Persuading high-risk students and caregivers who are averse to treatment is a primary task that requires greater expertise. In particular, they must address not only the understanding of mental health but also the understanding of school structures and invisible dynamics between caregivers and teachers, thus requiring the incorporation of various academic disciplines. However, the lack of stability in the operation of the Mental Health Professional School Outreach Project reduced the project's development momentum. The maintenance and management of a workforce capable of providing quality services is challenging because the continuity of the project is unsecured, and employment is unstable. Second, despite the importance of long-term monitoring and intervention for students who

were initially identified, there was a problem in that it was not possible to ensure the effective management of these students because the project was not operated continuously throughout a year (from March to December) due to the nature of the budget. This problem also occurred in March and April 2021, when returning to school delayed interventions for children and adolescents, exacerbating emotional issues.

Another problem identified during the COVID-19 pandemic was the lack of response systems during social crises. Although various institutions are responsible for child and adolescent mental health services in Korea, inter-agency collaborations are complex because each government department operates individually through a referral agency, and information about students is limited because of the nature of sensitive personal information [55]. Despite the goal of establishing a three-layered safety net within the Wee Project to support appropriate interventions based on the extent of the crisis faced by students, interagency collaborations have not been smooth. In particular, the fact that the work burden is increasing due to requests for school counseling support is concentrated on Wee Center, and the fact that the Wee School, the tertiary safety net that supports high-risk students, is not operating smoothly shows that the Wee Project needs to be restructured [21,25]. First, there is a need for a division that manages students' mental health within the Ministry of Education. Currently, because the departments in charge of the Wee Project, the Mental Health Professional School Outreach Project, and the Emotional and Behavioral Screening Questionnaire for students differ, overlapping projects appear and conflicts may arise due to ambiguous role boundaries. During unexpected disaster situations such as the COVID-19 pandemic, it is easy for service providers to experience disruption, and there must be institutions that can coordinate it.

Furthermore, consistent and specific behavioral response guidelines should be developed for use by school staff in disaster situations such as pandemics. Repeated policy changes have caused confusion in schools and imposed increased stress on staff. Furthermore, the symptoms of high-risk students worsened when they did not receive adequate assistance during the pandemic. Systematic guidance is required in conjunction with an advancement of the non-face-to-face counseling system that was developed during the pandemic and increased proficiency among practitioners.

CONCLUSION

This study reviewed mental health services for students in Korea, focusing on the projects of the Ministry of Education, and described the effectiveness and limitations of these efforts during the COVID-19 pandemic. Mental healthcare for children and adolescents is a crucial part of healthy growth, and an increasing amount of attention is being paid to this issue in schools. Different ministries have conducted individual projects in response, but it is difficult to understand the department projects at schools and clinical sites, which can cause confusion. The following directions for improvement are necessary for implementing effective child and adolescent mental health initiatives. The first improvement factor involves strengthening the collaboration between projects. Clarifying the characteristics of the projects of each ministry will reduce unnecessary wastage of human resources and budgets through specialized project operations. The second involves the sharing of case-management systems. The current system has limitations in transferring information when collaborating with other institutions and it is difficult to understand the services received at previous institutions. Collaborative systems and sharing of case management systems are expected to solve these problems. Finally, there is a need for a change in perceptions of mental illness among the general population, including students, teachers, and parents, and a strengthening of mental health literacy education. In the case of mental illness, the opportunity to seek treatment increases through the attention of family, friends and those around them. Multifaceted efforts are required to promote the mental health of children and adolescents, particularly school-based policies and various forms of support.

Availability of Data and Material

Data sharing not applicable to this article as no datasets were generated or analyzed during the study.

Conflicts of Interest

The authors have no potential conflicts of interest to disclose.

Author Contributions

Conceptualization: Seo Jung Kim, Jongha Lee. Methodology: Jongha Lee. Project administration: Seo Jung Kim, Jongha Lee. Resources: Seo Jung Kim. Supervision: Jongha Lee. Writing—original draft: Seo Jung Kim, Jongha Lee. Writing—review & editing: Seo Jung Kim, Jongha Lee.

ORCID iDs

Seo Jung Kim https://orcid.org/0000-0002-4986-7217
Jongha Lee https://orcid.org/0000-0003-0824-8564

Funding Statement

This study was supported by the Korea University Ansan Hospital Grant (O2207191).

REFERENCES

1) **Park JW, Heo MS.** Mental health status of children and adolescents, support system and improvement direction [Internet]. Seoul: National Assembly Research Service [cited 2022 Nov 1]. Available

from URL: https://www.nars.go.kr/report/view.do?cmsCode=CM0155&brdSeq=34664.
2) **Statistics Korea.** 2021 annual report on the causes of death statistics [Internet]. Daejeon: Statistics Korea [cited 2022 Nov 1]. Available from URL: https://www.kostat.go.kr/portal/korea/kor_nw/1/6/2/index.board?bmode=read&aSeq=420715.
3) **Ahn YS, Song HJ.** Non-suicidal self-injury in adolescents. J Emot Behav Disord 2017;33:257-281.
4) **Cheon J, Oh D, Lee J, Ahn J, Song DH, Cheon KA.** Increasing trend and characteristics of Korean adolescents presenting to emergency department for self-harm: a 5-year experience, 2015 to 2019. Yonsei Med J 2020;61:614-622.
5) **Kim Y, Choi S, Chun C, Park S, Khang YH, Oh K.** Data resource profile: the Korea youth risk behavior web-based survey (KYRBS). Int J Epidemiol 2016;45:1076-1076e.
6) **Korea Disease Control and Prevention Agency.** 2021 Korea youth risk behavior web-based survey statistics [Internet]. Cheongju: Korea Disease Control and Prevention Agency [cited 2022 Oct 25]. Available from URL: https://www.kdca.go.kr/yhs/.
7) **Kim KM, Kim D, Chung US.** Investigation of the trend in adolescent mental health and its related social factors: a multi-year cross-sectional study for 13 years. Int J Environ Res Public Health 2020; 17:5405.
8) **Lee J, Ko YH, Chi S, Lee MS, Yoon HK.** Impact of the COVID-19 pandemic on Korean adolescents' mental health and lifestyle factors. J Adolesc Health 2022;71:270-276.
9) **Lee J, Han C, Ko YH, Lee MS, Yoon HK.** Assessment of life factors affecting the experience of depressive symptoms in adolescents: a secondary analysis using the Korea youth risk behavior survey. Child Adolesc Psychiatry Ment Health 2021;15:50.
10) **Park JI, Jeon M.** The stigma of mental illness in Korea. J Korean Neuropsychiatr Assoc 2016;55:299-309.
11) **Lee I, Jung HY, Lee SI, Kim SG, Youn HC, Kim Y, et al.** Knowledge and perception of attention-deficit/hyperactivity disorder among elementary-school teachers. J Korean Neuropsychiatr Assoc 2020; 59:303-310.
12) **Langley AK, Nadeem E, Kataoka SH, Stein BD, Jaycox LH.** Evidence-based mental health programs in schools: barriers and facilitators of successful implementation. School Ment Health 2010;2: 105-113.
13) **Farmer EM, Burns BJ, Phillips SD, Angold A, Costello EJ.** Pathways into and through mental health services for children and adolescents. Psychiatr Serv 2003;54:60-66.
14) **Ha KH, Kim JA, Kim WS, Hong HJ, Kim SY.** The effect of students' mental health school-community cooperative model on the school mental health awareness. J Korean Acad Child Adolesc Psychiatry 2016;27:100-108.
15) **Wee Project Research Center, Korean Educational Development Institute (KEDI).** Introducing the Wee project [Internet]. Jincheon: Wee Project Research Center [cited 2022 Nov 1]. Available from URL: https://www.wee.go.kr/home/cms/cmsCont.do?cntnts_sn=1.
16) **Jo H, Kim N, Yoon E.** Introducing Korean adolescent counselling systems: implications for future directions. Couns Psychother Res 2022;22:74-82.
17) **Jeon I, Lee JM.** Home-type Wee center manual. Jincheon: Korean Educatuial Development Institute;2017.
18) **Lee JM.** Analysis on the Wee project policy applying the output analysis of Gilbert and Terrell. Korean J Youth Stud 2020;27:255-281.
19) **Kim SY, Kim JE.** Analysis research on the performance effectiveness of Wee class to establish school safety network for high school. Korean J Policy Anal Eval 2014;24:115-133.
20) **Choi SG, Yang SK, Lee SY, Choi B.** Wee project utilization satisfaction survey analysis. Jincheon: Korean Educational Development Institute;2011.
21) **Kim H, Bae H, Jang D.** A study on the problems and development strategies of Wee center in hospital. Journal of Learner-Centered Curriculum and Instruction 2019;19:499-520.
22) **Han GJ, Son JH.** Wee school helpful factors perceived by adolescents. Journal of Human Understanding and Counseling 2011;32:53-70.
23) **Lee JM, Park H.** A qualitative case study on the elementary school wee class school counselling teachers' recognition in collaborating with homeroom teachers. Teacher Education Research 2019;58: 651-668.
24) **Je YS, Jo H.** A qualitative study on the needs of professional counseling teachers about school counseling law system. Korea Journal of Counseling 2020;21:49-67.
25) **Oh H.** A study of the implementation of the Wee project based on Michael Lipsky's street-level bureaucracy model. Korea Journal of Counseling 2022;23:67-90.
26) **Hwang JW, Ahn DH, Lee YJ.** Development of the child personality and men-tal health screening questionnaire, second version in Korea. Eur Neuropsychopharmacol: Elsevier Science 2019;29:S138-S139.
27) **Kim SY, Hwang JW, Lee YS, Kim B, Park EJ, Hong M.** Development of the adolescent personality and mental health screening questionnaire, third version, in Korea. J Am Acad Child Adolesc Psychiatry 2019;58:S220-S221.
28) **Oh I.** Effectiveness of mental health professional's school visit service. Anyang: Hallym University Suicide and School Mental Health Institute;2016.
29) **Ryu HS, Jeong HK, Lee Y, Choi M, Kwon Y, Yoon K, et al.** Student affective behavioral characteristics test administration manual. Seoul: School Mental Health Resources and Research Center;2022.
30) **Hong HJ, No BR, Kwon HI, Kim HK, Kim YR, Woo JJ.** A study on the role of national hospitals to promote mental health of children and adolescents in the community. Sejong: Ministry of Health and Welfare;2013.
31) **Kim IT, Bang EJ, Kim GG, Hong HJ.** Awareness of students' emotional and behavioral screening test based on parental and teacher ratings. J Korean Acad Child Adolesc Psychiatry 2017;28:260-267.
32) **Ha KH.** A study on the cooperation between schools and community services for student mental health: focused on the perception of education practitioners participated in students' mental health school-community cooperative model. Mental Health & Social Work 2017;45:64-91.
33) **Fung D, Ong LP, Tay SL, Sim WH.** Reach chronicles: a community mental health model for children and adolescents in Singapore. Singapore: World Scientific;2013.
34) **Oh IS, Hong HJ, Kang YH, Lim I.** Analysis on effectiveness of mental health professional's school visit service for intervention. J Res Educ 2017;30:227-258.
35) **Ministry of Gender Equality and Family.** Community Youth Safety-Net [Internet]. Seoul: Ministry of Gender Equality and Family [cited 2022 Nov 2]. Available from URL: http://www.mogef.go.kr/mp/pcd/mp_pcd_s001d.do?mid=plc502&bbtSn=166.
36) **Kim J, Jeong S.** Research on runaway youth protective support status and policy project. Sejong: National Youth Policy Institute;2014.
37) **Bae J, Kim D, Jeong S, Kang T, Park H.** 2010 national youth crisis survey. Busan: Korea Youth Counseling Institute;2010.
38) **Park HJ, Song MK, Shin JM.** Study on the efficient method of supporting out-of-school youths. Seoul: National Youth Policy Institute;2015.
39) **Cho MS.** Stigma and life satisfaction among out-of-school Korean youth: the mediating roles of self-esteem and depressive symptoms. Curr Psychol 2021 Sep 6 [Epub]. Availble from: https://doi.org/10.1007/s12144-021-02103-w.
40) **Korea Youth Counseling & Welfare Institute.** History of K-dream

2022 [Internet]. Busan: Korea Youth Counseling & Welfare Institute [cited 2022 Nov 2]. Available from URL: https://www.kdream.or.kr:446/user/sub/sub01/sub010302.asp.
41) **Korea Youth Counseling & Welfare Institute.** Service flow chart of youth counseling and welfare center [Internet]. Busan: Korea Youth Counseling & Welfare Institute [cited 2022 Nov 1]. Available from URL: https://www.kdream.or.kr:446/user/sub/sub01/sub010202.asp.
42) **National Youth Healing Center.** Introduction of the National Youth Healing Center [Internet]. Yongin: National Youth Healing Center [cited 2022 Nov 1]. Available from URL: http://www.nyhc.or.kr/IndexNServlet.
43) **National Daegu Youth Healing Center.** Introduction of the National Daegu Youth Healing Center [Internet]. Daegu: National Daegu Youth Healing Center [cited 2022 Nov 1]. Available from URL: http://www.youthfly.or.kr/html/main.html.
44) **Ministry of Health and Welfare.** 2022 mental health project guide. Sejong: Ministry of Health and Welfare;2022.
45) **Oh SY.** A study on countermeasure and second crime caused by juvenile internet gambling addiction. Korea Criminal Intelligence Review 2018;4:79-95.
46) **Lee E, Jeon Y.** A study on the actual conditions of new drug offenders in Korea. Korean Assoc Addict Crime Rev 2022;12:85-102.
47) **National Center for the Rights of the Child.** Current status of child welfare institutions [Internet]. Seoul: National Center for the Rights of the Child [cited 2022 Nov 2]. Available from URL: https://www.ncrc.or.kr/ncrc/cs/cnter/selectCnterList.do?mi=1122.
48) **Lee S.** A study of workforce management for child protective service: focusing on the child protection agency. Health Welf Policy Forum 2021;297:8-21.
49) **Shim E, Tariq A, Choi W, Lee Y, Chowell G.** Transmission potential and severity of COVID-19 in South Korea. Int J Infect Dis 2020;93:339-344.
50) **Jiao WY, Wang LN, Liu J, Fang SF, Jiao FY, Pettoello-Mantovani M, et al.** Behavioral and emotional disorders in children during the COVID-19 epidemic. J Pediatr 2020;221:264-266.e1.
51) **Franic T, Dodig-Curkovic K.** Covid-19, child and adolescent mental health - Croatian (in)experience. Ir J Psychol Med 2020;37:214-217.
52) **Lee J.** Mental health effects of school closures during COVID-19. Lancet Child Adolesc Health 2020;4:421.
53) **Kim HJ, Kim MH, Min S, Lee J.** The association between socioeconomic changes and adolescent mental health after COVID-19 pandemic. Korean J Psychosom Med 2022;30:16-21.
54) **Han, HW, Lee JM.** An exploratory study on the barriers of non-face-to-face counselling and the difficulties of students perceived by elementary school counselling teachers in an era of covid-19. Teacher Education Research 2021;60:51-66.
55) **Lim SE.** The analysis on policy network association for mental health of children and adolescents. Seoul Studies 2019;20:97-116.