

Mindlink: A stigma-free youth-friendly community-based early-intervention centre in Korea

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Abstract

Aim: In many Asian countries, youth mental health services are not well-developed and access to treatment is generally delayed. Here, we present a community-based service model based on our experience with Mindlink, the first early-intervention centre of its kind in Korea.

Methods: We describe the history of this mental health early-intervention service and the characteristics of users, as well as its intervention programmes and research directions. We also propose ways to further develop youth mental health services.

Results: A community-based early-intervention service for youth was first introduced in 2012, when a special team was formed in a community mental health centre of Korea. As the numbers of young clients increased, a youth-friendly, early-intervention centre called Mindlink was opened in 2016. Mindlink targets those aged 15–30 years with mental illness less than 5 years in duration. Its goal is to detect mental illness in young people early and provide comprehensive multidisciplinary interventions. It provides intensive case management and group programmes including cognitive-behavioural therapy, family intervention, psychoeducation, behavioural activation and physical health promotion. The Korean government has officially announced that the Mindlink model is effective and is currently in the process of scaling it up on a national level.

Conclusion: An accessible, youth-friendly, stigma-free, community mental health centre such as Mindlink allows early detection and appropriate management of mental illness in young patients.

KEYWORDS

early intervention centre, Korea, Mindlink, psychosis, youth

1 | INTRODUCTION

Early intervention is essential to improve the outcomes of patients with mental illness. Most chronic mental disorders emerge by the age of 24 years (Kessler et al., 2005), so early detection and management of mental illness in young populations is especially important.

However, many barriers, such as poor mental health service systems and social stigma, prevent young people from seeking help (McGorry et al., 2008). In Asian countries, investment in mental health services is relatively low and the stigma associated with psychiatric treatment is generally higher than in the West (Lee et al., 2016; Mizuno et al., 2012). In Korea, those with mental health problems generally

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delay seeking help and consequently experience a long duration of untreated psychosis (DUP). Many Koreans believe that psychiatric treatment will lead to social discrimination and reduce the chance of employment, so the treatment rate of patients with mental illness is extremely low: 22%, compared with 40 ~ 50% in Western countries (Kim, Yu, & Kim, 2020). To overcome this problem, programmes for young people with first-episode psychoses were implemented in the 2000s, but these were generally hospital- and research-based (Kim, Lee, et al., 2017; Kwon et al., 2012).

In 2012, the Korean government funded the implementation of a pilot community-based early-intervention service in Gwangju, a metropolis in southwestern South Korea. Based on its findings, an independent, community-based early-intervention centre called Mindlink was opened in June 2016 to treat young patients with mental problems. Here, we introduce this service, which is the first community-based youth-specific early-intervention mental health centre in South Korea. Based on our findings, we also propose ways to implement early interventions in other Korean communities and other Asian countries where youth mental health interventions are currently not well-developed.

2 | METHODS

First, we describe the history and development of Mindlink, the first centre specializing in real-world early-intervention services for Korean youth. Second, we describe the characteristics of clients, including the proportion of those who had registered with the community mental health center (CMHC) where Mindlink started, as well as demographic and clinical characteristics, including diagnoses and also referral pathways to the centre. Third, we discuss the early-intervention services provided. Finally, we present our findings regarding evidence-based practice. This study was approved by the Chonnam National University Hospital Institutional Review Board.

3 | RESULTS

3.1 | The history of Mindlink

Korea contains more than 200 district-based CMHCs; each province has 16 metropolis-based centres. In 2012, Gwangju metropolis, one of the 16 Korean provinces, was selected for the development of a pilot community mental health service system: a CMHC in the north district of Gwangju city (Gwangju Bukgu) began providing early interventions for youth. At the time, most patients who used the CMHC were aged 40 years or older. The criteria for the pilot early-intervention were age between 15 and 35 years and illness duration of 5 years or less. The catchment area for this pilot intervention was the entire Gwangju metropolis, with a population of 1.5 million. The catchment area for the parent Gwangju Bukgu CMHC was one of five districts of Gwangju, with a population of 450 000.

The number of young clients who had registered for case management and programs with the CMHC early intervention team or

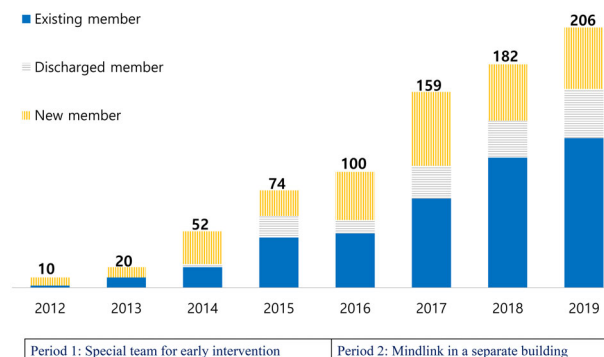


FIGURE 1 Total number of young clients registered with the centre

Mindlink increased from 10 in 2012 to 206 in 2019 (Figure 1). The proportion of young patients seeking early interventions among total new service users registered at the parent CMHC increased from 4 to 40% over a period of 4 years. In 2016, a new early-intervention centre was opened in a separate building, which is located near the biggest university (20 000 students) in Gwangju metropolis. We called this facility Mindlink. Mindlink connects youths with mental illness to health services, treatments, education, and employment. It seeks to build connections between community service and hospital treatment, mental and physical health, patients and family members, and personal life and life in society. When developing the service model for Mindlink, we collaborated closely with researchers and clinicians at Orygen, the National Center of Excellence in Youth Mental Health, Australia (Kim, Polari, et al., 2017).

As patient numbers continued to grow, we reduced the upper age limit from 35 to 30 years. After Mindlink opened, the proportion of registered young patients among newly registered members in our catchment area increased to about 50%, compared with about 16% at CMHCs in other provinces. The number of case managers was increased from three to nine (four social workers, three psychologists, one nurse and one peer specialist). Korean CMHCs are not allowed to prescribe medication; patients needing medications are told to visit psychiatric clinics. Five part-time psychiatrists work at Mindlink for half a day each week, and are involved in group therapy, assessment of new clients, and supervision of case management. This is unusual compared with other Korean CMHCs, which usually have only one part-time psychiatrist working for a day each week. Many young Koreans are reluctant to visit a CMHC even after being referred by their treating psychiatrist, because of the associated stigma. To overcome this problem, we established partnerships with hospitals; case managers visited inpatient wards and engaged in case management by developing discharge plans with patients. This process increased access to early-intervention services among young patients even when service development was in its initial stages.

In 2018, after formal evaluation the Korean government announced that the Mindlink project was remarkably successful. In 2019, Korean society was shocked by many violent criminal acts of patients with schizophrenia, and the Department of Health and Welfare decided to expand the Mindlink model to other areas of Korea as a key mental health service strategy. Three more Mindlink centres will

open in 2020. Additionally, at the National Assembly election in April 2020, the Government ruling party publicly committed to the expansion of Mindlink to all 16 metropolitan provinces.

3.2 | Characteristics of Mindlink service users

In total, 206 young people registered for service and case management in 2019. Their mean age was 25.8 ± 4.0 years and 45.1% were male. The most common diagnosis was schizophrenia spectrum disorder (53.4%) including first-episode schizophrenia, schizophreniform disorder and schizoaffective disorder. Depression was the second most common diagnosis (24.8%), followed by ultra-high risk (UHR) of psychosis (9.7%) and bipolar disorder (9.2%). About 61% of clients live in the north district of Gwangju (the catchment area of the parent CMHC) and the rest live in other districts of Gwangju metropolis.

Figure 2 presents the routes of referral to Mindlink. In the first and second years of operation (2016 and 2017), most members were referred from hospitals (58.0%), including the university hospital (where the executive manager of Mindlink works) (44.5%). Self-referrals (by patients or family members) totalled 14.3% in 2016 and 2017, and increased by 51.3% in 2018 and 2019 (33.9% by patients and 17.4% by family members); hospital referrals fell to 32.2%. In most cases, patients and their family members voluntarily accessed Mindlink after searching for youth mental health services on the internet or after receiving recommendations from acquaintances.

An average number of new clients visiting Mindlink for short-term counselling was 461 per year for the recent 3 years. Problems related to depression were the most common (61.7%), followed by issues with schizophrenia (22.6%), bipolar disorder (6.2%), and anxiety disorders (5.1%). Their mean age was 25.3 ± 8.1 years and 36.3% were male.

3.3 | Programmes provided by Mindlink

The key feature of the Mindlink model is early detection of mental illness in young people, followed by comprehensive multidisciplinary

interventions. We validated the Korean versions of the Prodromal Questionnaire-16 item (PQ-16) (Kim, Chung, et al., 2018) and the Community Assessment of Psychic Experience-Positive 15-item (CAPE-15) (Kim, Kim, et al., 2020) instruments for early detection of UHR of psychosis. We also used the Patient Health Questionnaire-9 (PHQ-9) (Spitzer et al., 1999) and GAD-7 (Generalized Anxiety Disorder-7) (Spitzer et al., 2006) measures to mass-screen for depression, anxiety and suicide ideation among college students. We provide these scales as online forms for self-screening at Mindlink homepage (www.mindlink.or.kr). The number of young people voluntarily taking online screening test has increased from 134 in 2017 to 1322 in 2019. About half of self-screening tests conducted at the homepage were scales for UHR of psychosis.

Intensive case management was provided to clients of Mindlink. In Asian countries including Hong Kong, Taiwan and South Korea, CMHC and hospital caseloads are high compared with those in Western countries (Chen et al., 2011). With regard to clients with chronic mental illnesses, the caseload per case manager is about 50 in the parent CMHC, but only about 20 in Mindlink, allowing more frequent contact between them. In 2013, we developed a smartphone application for real-time case management of young subjects who were comfortable with digital devices and often lacked the time to visit us during the day because of school or work. We published our results demonstrating that the application was valuable for young patients with early-stage psychosis (Kim, Lee, et al., 2018).

We developed a Korean version of group cognitive behavioural therapy (CBT) for patients with early psychosis; this featured three parts with a total of 15 sessions. The first part, metacognitive training, aims to enhance patient awareness on cognitive bias and flexibility. After practicing cognitive restructuring, patients are encouraged to adopt the skills in real life; subsequent sessions focus on stress- and time-management and enhancement of self-esteem. In total, 195 young clients have participated in this group CBT. Our pilot study demonstrated that group CBT had positive effects on subjective wellbeing, attitudes about treatment, perceived stress, and suspiciousness (Kim, Jang, et al., 2017). These positive effects were particularly significant among patients with short DUPs. After completing group

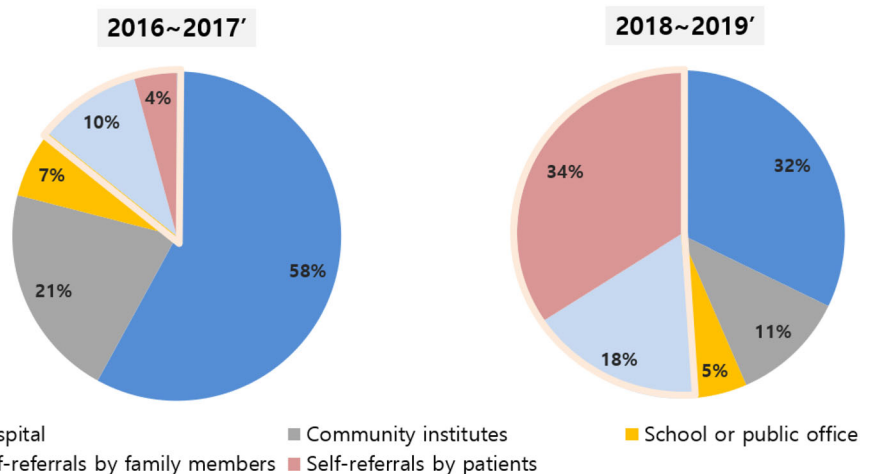


FIGURE 2 Routes of referral to Mindlink

■ Hospital ■ Community institutes ■ School or public office
 ■ Self-referrals by family members ■ Self-referrals by patients

CBT, patients were encouraged to record their daily thoughts on smartphones and to engage in self-directed CBT, and case managers gave real-time feedback. Mental health clinicians from 255 other CMHCs and hospitals have now completed a one-day workshop on how to perform the Mindlink group CBT.

Next, we developed a family intervention programme (10 sessions; see Table 1). Parents are quite important in Korea, reflecting the nation's Confucian values. Usually, family members had persuaded the affected youth to seek help. Our previous research revealed that a long DUP was significantly associated with poorer family cohesion in patients with first-episode psychosis (Jo et al., 2020). Further, strongly expressed emotions are well-known to be closely associated with relapses and poor outcomes among patients with schizophrenia. In Korea, family members of chronic schizophrenia patients are usually provided with a few psychoeducation sessions. We developed a group family intervention programme featuring six sessions involving psychoeducation and four focusing on communication and stress management. Most participants were parents of young subjects with first-episode psychosis.

For the young clients themselves, we provided a six-session psychoeducation programme focusing on the nature of the illness, medications, relapse, prevention of comorbid depression and suicide, and symptom management (Table 1). Psychoeducation is intended to increase the awareness of illness and prevent suicide and relapse.

The life expectancy of patients with schizophrenia is ~15 years less than that of the general population; premature mortality is quite high (Bitter et al., 2017; Saha et al., 2007). Unhealthy lifestyle patterns contributing to mortality, such as a lack of physical activity and dietary imbalance, are generally evident at the early stage of illness (Kim et al., 2019; Kim, Lim, et al., 2017; Kim, Stewart, et al., 2018). The promotion of physical activity is as important as management of psychiatric symptoms for youths with mental issues, so Mindlink provided regular exercise schedules and educational materials encouraging a healthy diet. We are currently developing systematic group programmes to encourage exercise and balanced nutrition; these will feature motivational enhancement and behavioural activation.

3.4 | Research conducted by Mindlink

An evidence base demonstrating the importance of early intervention is important when seeking to persuade government officials to invest and expand the model, and to ensure that client services are scientifically proven to be effective. We have published research on group CBT, smartphone application, the nutrition and physical health of patients with schizophrenia, and early detection of UHR of psychosis (Kim, Jang, et al., 2017; Kim, Lee, et al., 2018; Kim, Lim, et al., 2017; Lee et al., 2018). Together, these findings demonstrate the effectiveness of Mindlink and provide a good rationale for expansion. Our work was performed in collaboration with the Gwangju Early Treatment and Intervention Team (the GETIT) that treats patients with early-psychosis in a university hospital.

Commencing in 2020, we are engaging in clinical trials supported by Korean national research funding to develop and evaluate community-based programmes aiding the recovery of patients with schizophrenia. We are investigating the effectiveness of four key Mindlink group programmes—group CBT, family intervention, psychoeducation and behavioural activation with exercise—in nationwide, multicentre clinical trials. The title of our study is: 'Community-based Program for Recovery from Schizophrenia Study' (COMPRESS). This four-year, randomized controlled trial features a cross-over design (exercise) and pragmatic clinical trials with wait-list controls (the other three programmes).

4 | DISCUSSION

Community-based early-intervention services for, and research on, those with mental illness have increased over the last two decades in the West, but Asia lags behind. In particular, investment in research on, and assistance for, youths with mental health issues has been poor in South Korea (Roh et al., 2016). Mindlink is the first community-based, youth-specific, early-intervention centre in the country. The

TABLE 1 Contents of family intervention and psychoeducation programs in Mindlink

Session	Family intervention	Session	Psychoeducation
1	Introduction: needs for family intervention	1	Understanding schizophrenia: cause, symptoms, course
2	Understanding schizophrenia: cause, symptoms, course	2	Medication 1: mechanism of medication, needs for maintenance of medications, long-acting injection
3	Medication 1: management of adverse effects		
4	Medication 2: needs for maintenance of medications	3	Medication 2: adverse effects, drug interactions
5	Relapse prevention: early recur signs, risk of relapse	4	Depression and suicide: management of suicide risk, understanding depressive symptoms
6	Suicide prevention: depression, crisis intervention		
7	Communication 1: dealing high expressed emotion	5	Relapse prevention: early recur signs, risk of discontinuation of medication
8	Communication 2: managing suicide idea		
9	Management of family stress	6	Plan for management of symptoms: review, personal plan for relapse prevention
10	Summary: review, letter to family members		

increased levels of self-referrals by patients and their family members suggest that Mindlink is perceived as youth-friendly and does not stigmatize those who seek help. The neutral and familiar name reduces stigma and promotes the service. In addition, youth-friendly online environment and our digital mobile service platform also enhance accessibility to mental health service for young people. We believe that our experience may aid the development of early-intervention centres in other areas, particularly those with limited mental health resources and funds.

The history of community-based early intervention in Gwangju city spans 8 years: the first 4 years featured an early-intervention team in a CMHC and the last four featured the youth-friendly Mindlink. Within the original building used by patients with chronic mental illnesses it was difficult to provide early interventions for youth or enrol young clients: stigma was high and services were not specialized for youth. However, if few funds and resources are available, implanting a special CMHC team delivering appropriate early intervention and intensive case management might be a (primitive) alternative to a dedicated early intervention centre. The Korean government plans to expand Mindlink to other Korean provinces since 2020; we will support these centres and work with them to conduct clinical trials to collect a larger evidence base.

Our 4-year experience with Mindlink has yielded positive results, encouraging nationwide expansion. We have reported evidence-based service model and the government plans to gradually open 16 Mindlink centres. This decision is quite progressive, in contrast with the situation over the past decade, but 16 centres will not be enough, given the demand for community mental health services. Mental illness accounts for almost half of all disease burden in young people, and early-stage psychiatric illness in young people may progress in the absence of timely and appropriate intervention. More early-intervention centres featuring multidisciplinary clinical collaborations are needed, and should serve relatively small catchment areas for appropriate caseloads.

The social and cultural characteristics of Asian countries differ somewhat from those of the West (Hofer et al., 2016). Mental health service resources are generally poorer and the stigma associated with mental illness is generally higher (Chen et al., 2011; Lee et al., 2016). Thus, it may be difficult to apply Australian or European models of advanced early interventions in the short-term. Asian consortia and networks focusing on the development of early interventions and collaborative research have been established, but require strengthening (Hui et al., 2019). We believe that Mindlink is a good model of early intervention and that similar models can be effectively applied in other Asian countries.

5 | CONCLUSION

Our community-based early intervention for youth mental health gradually evolved from a special team to the Mindlink centre and is ready for expansion to other areas. We are currently collecting more systematic evidence and hope to open hundreds of early-intervention

centres for Korean youth. Many young people with distressing mental illnesses, and their family members, now voluntarily visit Mindlink for help. They are seeking early psychiatric treatment despite the major associated stigma. Although stigma is problematic, low investment in effective mental health services may be of greater concern. Our experience with the Mindlink model suggests that investments in youth mental health and good service delivery can overcome stigma and other barriers to early access to mental health services.

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DISCLOSURE OF INTEREST

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

N/A

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