

Mental Health Promotion and Illness Prevention: A Challenge for Psychiatrists

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Mental health is essential for individual and public health. To improve mental health, promotion, prevention, and the treatment of disease are required. These three kinds of interventions are interrelated but independent from one another. Although separate efforts for mental health promotion and prevention are needed as well as the public need of mental health promotion and well-being, psychiatrists usually are not accustomed to mental health promotion and prevention. This review introduces an overview of the concept, subjects according to target populations, and various intervention strategies for mental health promotion and prevention of mental illnesses. Based on literatures to date, understanding of developmental psychology, lifestyle medicine, and biopsychosocial contributors of mental health with a macroscopic perspective might help to practice mental health promotion and illness prevention.

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Key Words Mental health, Health promotion, Primary prevention, Early intervention, Personal satisfaction.

INTRODUCTION

Health is defined as “a state of complete physical, mental, and social well-being and not merely an absence of disease or infirmity” by World Health Organization (WHO).¹ To improve health, the promotion of health, prevention of disease, impairment, and disability, and the treatment of disease are required. However, the values of mental health promotion and illness prevention have been underappreciated more than those of physical health to date with regards to mental health.² This is in line with that research on mental health has been weighted heavily on psychopathologies and mental illnesses rather than well-being or optimal functioning.³ Although separate strategies from treatment are needed for mental health promotion and prevention of mental illnesses,⁴ psychiatrists are not usually accustomed to these concepts and approaches.⁵

Indeed, subthreshold psychiatric symptoms, such as depression and anxiety, are reported in a large proportion of po-

pulations.⁶ Although it is subthreshold in level, these symptoms often debilitate and increase the risk of occurring psychiatric disorder within a few years.⁷ Therefore, screening and early intervention of individuals at high risk are important issue in preventing mental illnesses.

However, mental health is not just the absence of mental illness but enjoyable, productive, and fulfilling life.⁸ This balanced optimal functioning of individuals should be the goal for mental health practitioners. Accordingly, 10-year cohort study showed that individuals with low positive well-being are at risk of developing depression.⁹ With the increase of individual and social needs for mental well-being and positive mental health,^{4,10,11} increasing resilience and well-being might provide the targets of primary or secondary prevention among otherwise healthy individuals.¹² Moreover, the importance of positive well-being and resilience factors has also been suggested in clinical populations. While baseline high resilience predicted treatment response within six months in depressed patients,¹³ low quality of life predicted recurrence of depression in patients with bipolar or recurrent depressive disorders.¹⁴

The three kinds of interventions of promotion, prevention, and treatment are interrelated and complementary; however, they are somewhat different from one another.² In this regards, psychiatrists also need to be competent in prevention of mental illnesses and mental health promotion in various settings.

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This review introduces the concepts, subjects, and intervention strategies for mental health promotion and prevention of mental illnesses to facilitate more engagement with these subjects.

THE CONCEPTS

Health promotion mainly deals with the determinants of mental health and aims to keep people healthy or become even healthier.^{2,4} In other words, mental health promotion aims at enhancing individual's ability to achieve psychosocial well-being and at coping with adversity.⁴

On the other hand, prevention of illnesses focuses on the causes of risk factors to avoid illness.² There are three categories of prevention: primary prevention focuses on various determinants in the whole population or in the high risk group. Secondary prevention comprises early detection and intervention. Tertiary prevention targets for advanced recovery and reduction of relapse risk.

As you see, the concepts of promotion and prevention are interrelated and overlapped. Indeed, the direct causal pathway is not generally established in most mental illnesses, but rather multiple factors including both risk and protective factors contribute to the development of them. Therefore, mental health promotion might involve specific activities for prevention and some researchers used mental health promotion as a general term including both concepts.¹⁵ Mental health promotion and illness prevention were also taken together in the present review.

TARGET POPULATIONS AND TOPICS

In regards of mental health promotion, the whole population is the possible target of mental health promotion. Across the individual's lifespan, facilitating the development and timed achievement of goals are essential in mental health. Evaluating the achievement of relevant developmental task could be a meaningful topic in mental health promotion and illness prevention. In addition, age and gender of target population are related to prevalent major mental health problems, risk factors, and effective intervention strategies. Considering these, we scoped the subjects of mental health promotion and illness prevention according to the age group and then, mentioned issues on gender difference.

Children and adolescents

The period of child and adolescence is the time when mental illness is often developed and firstly diagnosed. Indeed, half of the lifetime mental illness is started by age 14.¹⁶ The mental health of school children and adolescents exerts neg-

ative impacts on their school performance, peer rejection, risky behaviors, and future health.^{17,18} Among those aged 10-24 years, mental illness is one of the main causes of years lost due to disability, contributing to about 45% of disability-adjusted life-years.¹⁹

Children and adolescents undergo brain development, and the prefrontal cortex, in particular, continues to develop until early adulthood.²⁰ Therefore, the brain in childhood and adolescence is vulnerable for social, emotional, and behavioral adversities. Family disruption and low socioeconomic status as well as childhood maltreatment or other adversity might be risk factors for mental illnesses.²¹ In particular, various types of childhood maltreatment, such as emotional, physical, and sexual abuse, were associated with many forms of mental illnesses including both internalizing and externalizing psychopathology.²² Despite its clinical significance, childhood maltreatment is often missing in routine evaluation.²³ On the other hand research on resilience in high-risk children facing various adversity have shown that self-efficacy, self-esteem, higher cognitive abilities, planning skills, family cohesion, social skills with close and supportive relationships with an adults were associated with adaptive coping and lower psychopathology.

Childhood and adolescence is considered a challenging period for developing the foundation for mental health and healthy behaviors (e.g., tobacco, alcohol, and eating habits) that prevent both mental and physical health problems.²⁴ Identifying both risk factors and protective factors with targeted intervention and screening of psychiatric symptoms are important issues of mental health promotion and prevention of mental illnesses in this age group.

In addition to the role of family, that of school for mental health as an important social environment is crucial for children and adolescents.¹⁸ Accordingly, various school-based mental health interventions have been studied.²⁴ Intervention programs targeted to mental health promotion and well-being have shared methods such as cognitive behavioral therapy (CBT), social skills training for children or adolescence, parent training, and teacher training.²⁵ The goals of these interventions are the acquisition of social and emotional skills, competencies, and strong relationship between students and teachers that might be protective for various internalizing and externalizing problems while facilitating positive development and emotional well-being.^{24,26-28} Although the effect of intervention seems to be greater in high risk groups, a possible ceiling effect and small to modest effect in the whole children and adolescents need to be considered.²⁴ Moreover, a recent review suggested that preventive intervention for adolescents needs focus on the common determinants of health as a whole in conjunction with education rather than on specific

diseases or problems.¹⁸ For better and lasting interventions for mental health promotion of children and adolescence, cognitive-behavioral therapy approaches, early start with continuing booster sessions, a whole-school approach using leaders in the school, such as teachers and peers, liaisons with parents and community, and availability of outside agencies, such as psychiatrist are recommended.²⁴

With the advent of IT technology, problematic overuse of internet or online game, social network services and text messaging have been emerged as an important issue among children and adolescents.^{29,30} Since they have limited self-regulation capacity and high dependence on peer pressure, children and adolescents may be vulnerable to overuse problems with internet, online games, and social media.²⁹ Although there is some controversy, internet game addiction and excessive mobile telephone use were reported to be associated with potential negative impacts on cognitive function in this population.^{31,32} Educational and preventive programs for healthy use of social media involving parents, school, psychiatrist, and counselors might be an additional urgent issue for mental health for children and adolescents.

Adults

Since adults comprise a large proportion of the working population as well as providing support children and older adults, mental health in this population has the utmost importance for society.⁴ Mental disorders in adults contribute to lost work productivity,³³ and predict mental disorders in their offspring.³⁴

Work-related stress or job stress is one of the major mental health problems during adulthood.³⁵ It is associated with negative lifestyle behavior, such as smoking, drinking and obesity,^{36,37} and poor mental health, such as insomnia^{38,39} and depression.⁴⁰ Job stress is defined as “harmful physical and emotional responses that occur when the requirements of a job do not match the capabilities, resources, or needs of the workers.”⁴¹ Stressors in job stress are often the characteristics of job itself and problems in social or organizational context. However, a psychosocial approach along with the primary prevention strategies might also be crucial because development of individual coping skills and social support from supervisors and co-workers could contribute to mitigation of job stress.³⁵ For example, a communication competence as well as associated social support and integrating conflict style were predictive of decreased job stress and increased job satisfaction.⁴² Management of job stress usually involves identification, assessment, and referral to medical resources outside the company, such as clinics, hospitals, and employee assistance programs (EAPs).³⁵ Cognitive-behavioral interventions may be more effective than other types, such as psychodynamic, ed-

ucational, and multimodal approaches.^{43,44}

Satisfactory marital relationship and parenting are important developmental tasks during adulthood. Relationship quality and parenting stress are closely related.⁴⁵ Good parent-child relationships contribute to better mental health for both children and parents.⁴⁶ During the first year of a child's life, higher maternal stress was associated with parental dissatisfaction, poor child sleeping patterns, lack of social support and confidence/security.⁴⁷ This increased parent's stress might lead to more punitive parenting attitudes whereas increased mutual support between partners might lead to favorable attitude in parenting.⁴⁸ Therefore, early interventions are needed for promoting parental mental and physical health as well as supporting good parenting skills. Various parent-training programs have been developed and their efficacy shown in a meta-analysis.⁴⁶ In this meta-analysis, cognitive-behavioral and rational emotive therapy programs were more effective in relieving guilt and improving parental moods, whereas the behavioral and multi-modal programs improved parenting competence and social support. The cognitive component focuses on cognitive distortions and techniques for dealing with such distortions while the behavioral component teaches child management skills, such as using clear, calm instructions, logical consequences for misbehavior, planned ignoring, and timeout.⁴⁶ Some researchers suggested a multilevel parenting program according to the severity of children's behavior, emotional, and developmental problems.⁴⁹ At any level of children's problems, enhancement of the knowledge, skills, and confidence of parents might be helpful in reducing parent stress.

Old age

The number of individuals over the age of 60 is rapidly growing worldwide.⁵⁰ Older adults encounter retirement, bereavement, and fear of their own death as well as being more biologically vulnerable to depression.⁵¹ However, researchers reported generally lower frequency of depression in older adults than younger adults.⁵² The socio-emotional selectivity, in that older adults tend to de-emphasize negative experience and prioritize emotionally meaningful goals, and increased wisdom are thought to contribute to protection from risk factors.⁵¹ In fact, individual psychological resources, such as self-esteem and mastery as well as social network and social support are regarded as essential for better mental health in older people.^{4,53} A moderate level of physical activity or exercise is also related to reduced depression and anxiety as well as improved quality of life in seniors.⁵⁴ In a systematic review of psychosocial interventions for promoting mental health and preventing depression in older adults, physical exercise, skill training, reminiscence, social activities, group support and multi-component interventions showed positive effects on

quality of life and mental health as well as reduction in depressive symptoms in a pooled analysis.⁵³ This review suggested that social activities significantly improved positive mental health, life satisfaction, and quality of life and reduced depressive symptoms. Skill training comprising interventions with education components, development of coping skills or management strategies also had a significant effect on positive mental health. Interventions lasting more than 3 months showed more positive effect than shorter interventions overall.⁵³

Successful cognitive aging is a central topic to older adults. Preventing the loss of information processing capacity and cognitive reserve as well as enhancing brain capacity and cognitive reserve are the dual goals of the successful cognitive aging.⁵⁵ For the first goal, clinical conditions that reduce cognitive reserve and intellectual capacity, such as vascular risk factors, sleep disorders, metabolic dysfunction, mood disorders, and medication side effects, need to be identified and treated. Meanwhile, it has been demonstrated that physical activity and cognitively stimulating activity enhance cognitive performance and reduce the likelihood of developing dementia. The level of total daily physical activity was associated with a slower rate of global cognitive decline and a reduced risk of Alzheimer's disease (AD) after controlling for other risk factors.^{56,57} Greater engagement of mental, social, and productive activity may protect against dementia.⁵⁵ In particular, the quality and extent of an individual's social network are protective in cognitive aging.⁵⁸ Based on these, exercise intervention and cognitive training programs have been used to challenge older adults. Interventions for increasing physical activity improved cognition in relatively healthy older adults,^{59,60} and in patients with early dementia.⁶¹ Of note, a six-month aerobic fitness training demonstrated increased brain volumes and functional plasticity among in patients with early dementia and otherwise healthy subjects.^{59,60,62} Even in patients with dementia, exercise was beneficial in reducing some symptoms of behavioral and psychological symptoms of dementia, such as depression, agitation, and wandering.⁶³ Cognitive training for memory, reasoning, and speed of processing reported lasting improvements in targeted functioning, especially with booster training.^{64,65} Although antioxidants, Ginkgo biloba, and nutritional factors showed positive effects on promoting successful cognitive aging, more evidence is needed to confirm their effects.⁵⁵

Gender difference

The prevalence and clinical manifestations of mental illnesses differ significantly by sex. For instance, the risk of depression and some anxiety disorders, such as panic disorder, social anxiety disorder, and generalized anxiety disorder, is higher in women than in men.⁶⁶ Since mothers' mental health

affects the mental health of their children and families,⁶⁶ promoting women's mental health might contribute to better family's mental health.

Women experience greater hormonal changes across the lifespan than men and face different psychosocial stressors.⁴ Brain morphology as well as structural and functional connectivity are different by gender.⁶⁷ Reproductive-related events, such as menstrual cycle, use of hormonal contraception, pregnancy, postpartum, and menopause, also potentially influence women's mental health.^{68,69} Additionally, women are more likely to experience rape and domestic abuse. Women are more sensitive to social network crises that are stressors in relationships with acquaintances, friends, or loved ones.⁷⁰ Gender role socialization and the tendency of higher anxiety and rumination as well as lower self efficacy in women also contribute to the increased vulnerability to anxiety in the face of adversity.⁷⁰ Reproductive phase, stressors, and cognitive and emotional coping styles need to be considered in approaches of mental health promotion and illness prevention.

INTERVENTIONS

Interventions might be categorized into universal (the whole population), selected (the subgroups with significant risks), and indicated (high-risk individuals) according to the range of target population.⁷¹ However, various interventions for mental health promotion and illness prevention might be overlapped. In this section, intervention strategies or components that are commonly involved in interventions mental health promotion or illness preventions were introduced as follows: 1) lifestyle medicine, 2) stress management skills training, and 3) preventive consultation and positive psychotherapy.

Lifestyle medicine

Stress and mental health problems are closely related to unhealthy lifestyles that are risk factors for mental and physical health.^{72,73} Therefore, healthy behavior intervention contributes to mental and physical health as well as to the management of stress itself.^{74,75} Along with the increase in lifestyle diseases, therapeutic lifestyle change has become an important target for interventions for both physical^{73,75,76} and mental health promotion.^{11,77} Therapeutic lifestyle change (TLC) focused on smoking, alcohol use, diet, physical activity or exercise, obesity, and stress management. Healthy lifestyle is encouraged in the general population and is more strongly recommended in high risk populations to prevent or ameliorate mental and physical health problems.

Regarding substance use, cigarette smoking is the most important preventable risk factor for various illnesses.⁷⁸ After the assessment of the severity of dependence and a patient's will-

ingness to quit, behavioral intervention with education, motivational interviewing and pharmacotherapy with bupropion or varenicline are helpful evidence-based approaches.⁷⁹ In addition, consultation and education for low-risk drinking could be provided in lifestyle medicine. Although there is no consensus guideline, low-risk drinking guidelines generally involve the following: 1) Intake less than 1-2 and 2-3 standard drinks per day for healthy female and males, respectively. 2) Intake less than 7 and 14 standard drinks per week for healthy male and females, respectively.^{80,81} 3) Do not drink alcohol when operating any kind of vehicle or machinery, using medications interacting with alcohol, engaging in potentially dangerous physical activities, pregnant or planning to be, breastfeeding, suffering from serious physical or mental illness, or for children and adolescents. As in the interventions for smoking cessation, behavioral intervention with education and motivational interviewing might be helpful in guiding low-risk drinking.

Physical activity is also challenging issue for mental health promotion and prevention. As already mentioned, effects of physical activity and exercise have been reported for depression, anxiety, cognition and other mental health problems, with the best evidence for depression.⁸²⁻⁸⁵ Therefore, exercise is strongly recommended as an integral part of mental health promotion, preventions, and management across all ages.⁸² Regarding the mediating mechanisms, modulation of neurotransmitter system, such as noradrenergic and serotonergic system,⁸⁶ and increased both BDNF dependent- and independent-hippocampal plasticity have been reported.^{87,88} Moderate exercise is hypothesized to counteract the influences of chronic stress in various brain regions.⁸⁹ A qualitative review also indicated psychosocial mechanisms of the effect of exercise including increased opportunity for social interaction, greater confidence, sense of meaning and achievement, and feeling of safety.⁸² Furthermore, exercise might lead to reduced anxiety sensitivity or trait anxiety and vulnerability to psychosocial stress^{83,90} as well as increased well-being.⁸⁵ Aerobic exercise or walking of 2030 min duration between three to five times per week is recommended generally.⁸³ A pedometer and a self-rated exercise log can be used to monitor physical activity each day.⁷³ More specifically, the prescription of exercise type, frequency, intensity, or duration would be tailored in considerations of contextual factors, such as medical conditions, body size, medications, support system, psychosocial issues.⁹¹

Healthy eating should be encouraged in TLC. Assessment of dietary habits, education, setting a dietary goal, and assessing dietary intake constitutes the lifestyle intervention for healthy eating.⁷³ A more plant-food-based diet including whole grain, legumes, vegetables, and fresh fruits is recommended. Fat, animal protein, sugar, salt are recommended to be reduced in

intake. Obesity is a lifestyle-related disease along with type-2 diabetes mellitus and cardiovascular disease. Obesity is also associated with higher risk of mental illness and reduced psychological well-being, especially in women.⁹² Weight cycling as well as obesity were associated with depression, alcoholism, other drug dependence, low self-esteem, and poor health perception.⁹³ Physical activity or exercise, dietary control, behavior therapy, and continuous patient-therapist contact are the principal components of lifestyle modification for weight control.⁹⁴ In this respect, lifestyle modification intervention is usually provided by a team comprising dietitians, psychologists or psychiatrist, and exercise specialists.

However, changing lifestyle is often difficult despite broad recommendations. In fact, multiple risk factors intervention using counseling and education aimed at behavioral changes reported limited efficacy in reducing mortality of coronary heart disease.^{95,96} For successful lifestyle modification, individual motivation to care for his or her own health is critical.⁹⁷ In this context, cognitive-behavioral intervention program using the motivational interviewing and problem solving might be effective in producing behavioral changes.⁹⁸ As a principal component of changing lifestyle, motivational interviewing is the patient-centered collaborative approach for enhancing internal motivation for change by exploring and resolving the ambivalence toward a target problem.⁷⁵ Expression of empathy, supporting self-efficacy of the client, rolling with resistance through encouraging the client to develop his own solutions, and development of discrepancy between their situation and expectations are the four general principles of motivational interviewing.⁹⁹ Meta-analyses demonstrated that motivational interviewing is effective in improving body mass index, cardiovascular risk factors, smoking, alcohol use, exercise, and psychological problems.¹⁰⁰⁻¹⁰² In addition to face-to-face interview with the client, the motivational enhancement approaches using tailored print communication and telephone interviewing were also effective in increasing physical activity, consumption of fruit and vegetables in middle-aged adults.¹⁰³ This effect is regardless of the presence of hypertension. For children and adolescence, a team-based approach using motivational interviewing with parents and children might be valid in managing diet, physical activity, and behaviors in overweight children.¹⁰⁴ Continuous support with encouraging motivation would be helped by joining the alumni association of TLC.⁷³

Stress management skills training

Managing daily life stress and helping recovery from adversity are important for mental health promotion.⁴ Since the interaction of the brain, mind, and body is involved in stress reaction, interventions based on mind-body medicine have

been suggested as an effective mean for managing stress.¹⁰⁵ Along with the TLC that is the basis of stress management,¹¹ more focused approaches have been developed as follows.

Cognitive behavioral approaches, so called cognitive-behavioral stress management (CBSM), are the most widely researched interventions based on the notion that cognition influences emotions and behavior.¹⁰⁶ Therefore, the primary goal of the therapy is the finding irrational thought patterns and replacing those with more rational thoughts. It also includes behavioral techniques, such as breathing and relaxation exercises. CBSM is usually performed as a group-based 10-week program. Topics included cognitive-behavioral theory of stress, emotions, thoughts, and physiological responses, identification of replacement of irrational automatic thoughts, coping skills training, assertiveness training, anger management, and increasing the use of social support. Relaxation exercises such as, progressive muscle relaxation and abdominal breathing are also included. CBSM comprised of in-session exercise and homework to apply these techniques to personal life experiences. Researchers have been demonstrated that CBSM is associated with improvement of health-related outcomes and reduced perceived stress and stress-related physiological responses in patients with cancer,^{107,108} human immunodeficiency virus infection,¹⁰⁹ and chronic fatigue syndrome,¹¹⁰ as well as healthy subjects.^{111,112}

Recently, meditation-based approaches, such as mindfulness-based stress reduction (MBSR), have come into wide use.^{113,114} These stress management program are shown to be effective in both nonclinical healthy subjects and patients with mental and physical illnesses.^{106,113} MBSR is a group program that focuses upon the progressive acquisition of mindfulness. The construct of MBSR was adapted from the Buddhist practice of meditation to enable people to better cope with illness, stress, and pain.¹¹⁵ It hypothesized that the development of the ability to sustain attention to moment-to-moment experiences by regular practice will provide a more accurate perception of one's own response to stimuli, greater sense of control, and vital sense of life.¹¹³ MBSR is a structured 8-10 week group program with homework that includes different forms of mindfulness meditation practice, such as meditation, yoga, and body scanning.¹¹⁶ For example, "sitting meditation" involves awareness of body sensation, thoughts, and emotions while continually returning the focus of attention to the breath. "Body scan" refers to a progressive movement of attention through the body from toes to head observing any sensations in body. Additionally, the loving kindness meditation, forgiveness, mindful listening skills might be added in need.¹¹⁷ Meta-analyses showed that MBSR might be a useful intervention for a broad range of chronic disorders¹¹³ and for stress reduction in healthy subjects.¹¹⁸ In healthy subjects, it

also reduces rumination and trait anxiety as well as enhances empathy and spirituality.¹¹⁸

Preventive consultation and positive psychotherapy

Based on the theory of Maslow's 'Hierarchy of needs'¹¹⁹ and Antonovsky's 'salutogenic perspective' in health promotion,¹²⁰ improved health-related quality of life and self-efficacy with positive lifestyle change were achieved by interventions dealing with resources and barriers to selected goals.¹²¹ This result is in line with the result in population-based cohort study whereby a high sense of coherence was independently associated with healthy lifestyle.¹²² Therefore, psychotherapeutic intervention for enhancing self efficacy and sense of coherence might be important. The effect of a structured 1-hour preventive consultation provided by general practitioners was shown in a recent study in Denmark.¹²¹ In this study, patient chose the consultation topics among social life, health, lifestyle, reaction on stressors. The patient chooses one or two goals for a better life and then, time schedules and specific barriers and resources for attaining the goals were discussed and described in the report. This preventive consultation significantly improved mental health and quality of life.

In line with these, the concepts of positive psychotherapy and resilience enhancement have been introduced in interventions for mental health promotion and prevention. Strengthening protective factors as well as the removal or reducing risk factors are the important strategies to promote mental health and illness prevention.⁷¹ Positive psychotherapy aims to increase positive emotion, engagement, and meaning rather than to target psychological problems.¹²³ Among various interventions to improve quality of life, well-being or happiness, quality of life therapy was developed as an approach to improving quality of life.¹²⁴ In this therapy, client assesses current levels of quality of life across multiple life domains, such as health, self-esteem, goals and values, standard of living, work, recreation, learning, creativity, helping or social service and civic action, love relationship, friendships, relationships with children, relationships with relatives, home, neighborhood, and community. Client and therapist attempt to change the circumstances, attitudes, standard of fulfillment, and relative importance of selected two to five domains. Among adults awaiting lung transplantation, individuals receiving telephone-based quality of life therapy demonstrated significantly higher quality of life at 1- and 3-month follow-up assessments.¹²⁵ Meanwhile, well-being therapy¹²⁶ is based on Ryff's model of psychological well-being.¹²⁷ This model has six dimensions of environmental mastery, personal growth, purpose in life, autonomy, self-acceptance, and positive relations with others. Well-being therapy comprises 8-12 sessions in which initial sessions focus on self-observation with using

a structure diary and subsequent sessions emphasize skill development and sustaining attentions to daily experience. In high risk population, decreased vulnerability to depression and anxiety was shown.¹²⁶ In addition, gratitude visit (write and deliver a letter of gratitude), three good things in life (write down three things went well each day and their causes every night), you at your best (write about a time when individual were at their best and reflect on their strength), identifying signature strengths and using them in a new way are positive interventions with reported efficacy.¹²⁸

The term *resilience* refers to the positive side of individual differences in people's responses to stress and adversity.¹²⁹ Although the definition of resilience has not yet been established, various contributing personal and environmental factors that might seem to work together were found.¹³⁰ Researchers have suggested that demographic variables, personal attributes, such as internal locus of control and active coping strategies,¹³¹ positive psychological factors, such as hope, optimism, gratitude and purpose in life,¹³² and socio-contextual factors, such as supportive relationships and community resources,^{129,133} contribute to resilience in both children and adults. Spirituality and religion have also been suggested to have a protective effect for mental health.^{134,135} Various interventions to enhance and strengthen resilience factors might contribute to mental health promotion and illness prevention.⁷¹ As an example of resilience enhancement intervention, *READY* program¹² based on five resilience factors of positive emotions, cognitive flexibility, social support, life meaning, and active coping.¹³⁶ This program consists of approaches of acceptance and commitment therapy including processes of acceptance, mindfulness, defusion, life values, social connectedness, relaxation, and pleasant activities, and activating and troubleshooting strategies as well as physical activity. Despite a pilot study, a significant improvement in psychosocial well-being was reported.¹²

Community intervention

Increase in public awareness of mental health might be needed to increase the acceptance of mental health care for promotion and prevention of illnesses.¹³⁷ Education for earlier recognition of problems and appropriate help-seeking would be important issues. Moreover, social network and social support may prevent mental health problems, such as mental health problems in children and cognitive decline, as well as promote well-being.⁷¹ Community-based interventions including education and enhancing social capitals might contribute to mental health promotion.

CONCLUSIONS

The message that there is no health without mental health

is worthy of notice.¹³⁸ Indeed, mental health is closely related to physical health, interventions for promoting mental health, such as stress management, will also improve physical health. With the increased interest for mental health and its management, mental health promotion and prevention of illnesses have become principal challenges for psychiatrists in addition to the treatment of mental illnesses. Since comprehensive knowledge of bio-psycho-social factors contributing to mental health and various psychotherapeutic skills are essential for these issues, psychiatrists can do best. Understanding for developmental psychology and lifestyle medicine as well as macroscopic perspective that considers individual, family, school, and community might be helpful. Further research on clinical screening method of mental health and practical guidelines of intervention strategies for mental health promotion and illness prevention are required.

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