



Research Title: Women's Mental Health after the Outbreak of COVID-19 and Measures for Policy Improvement from a Gender Perspective

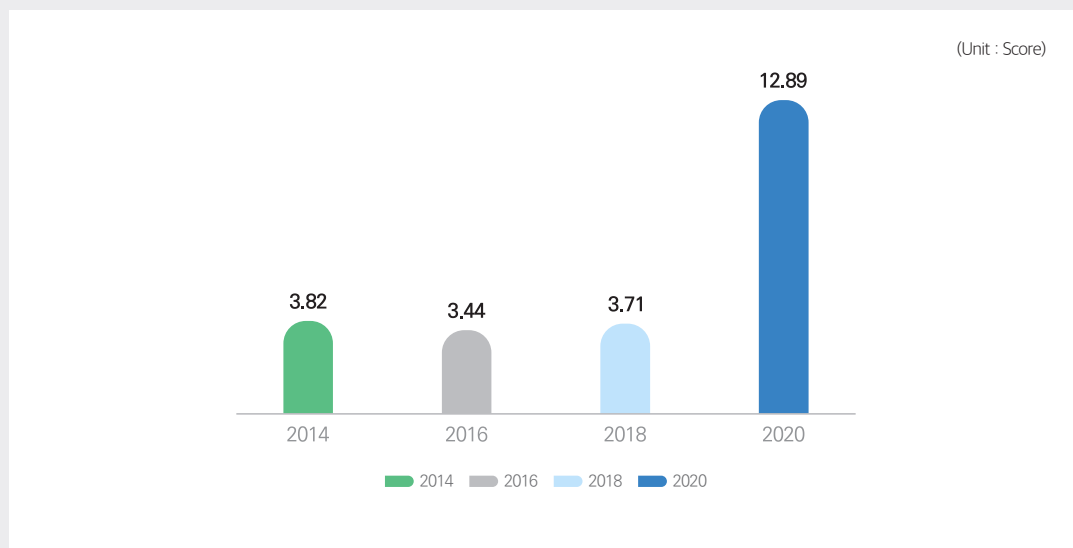
Principal Investigator: Young Taek Kim, Research Fellow

Women's Mental Health after the Outbreak of COVID-19 and Measures for Policy Improvement

Abstract

- ◎ This study examined the differences in mental health levels by gender using the Korea National Health and Nutrition Examination Survey, and analyzed changes in depressive symptoms through the Korean Longitudinal Survey of Women and Families (KLoWF) in relation to changes in social experiences during the COVID-19 period.
- ◎ According to the survey results, during the COVID-19 pandemic, disaster-related environments (such as economic losses and social isolation) led to a deterioration in social environments (such as disadvantages at work, discrimination in the labor market, and worsening interpersonal relationships) and family environments (such as changes in family roles and relationships with family members). In particular, socially vulnerable groups faced more challenging situations during the pandemic, which was found to have influenced their stress levels and depressive symptoms.
- ◎ Furthermore, the pandemic generally had a greater impact on stress and depressive symptoms among women than men within vulnerable groups, highlighting the need for government policy support to consider not only gender differences but also various socio-demographic positions and circumstances.
- ◎ Based on the findings, the study suggested strengthening the promotion of mental health improvement services and establishing tailored counseling channels for women and socially vulnerable groups as key policy tasks.

Average CESD-10 Scores for the Group with Depression Onset During the COVID-19 Period
(CESD-10 score of 10 or higher)



Data: Korean Longitudinal Survey of Women and Families, Analysis of 5th ~ 8th Waves

Mental Health Before and After the COVID-19 Pandemic

- Although previous studies have examined the adverse social environments for women during the COVID-19 pandemic and the resulting depression, stress, and suicide, there is a lack of comparative studies that investigate the differences between women and men.
 - ▶ Studies on women's mental health before and after the COVID-19 pandemic face limitations in analyzing changes in women compared to men.
 - ▶ Analyzing changes in mental health levels due to shifts in the social environment for women and men is important because different behaviors and thought patterns rooted in socio-cultural norms within a social-structural framework can result in varying manifestations of depressive symptoms.
- While comparative studies on mental health before and after the COVID-19 pandemic exist, there is a lack of research utilizing longitudinal data that can trace changes in depressive symptoms.
 - ▶ The use of cross-sectional data poses limitations, as the survey participants before and after the COVID-19 pandemic are not the same, preventing the analysis of causal relationships for changes in depressive symptoms and explanatory variables.
 - ▶ The emergence of depressive symptoms before and after the COVID-19 pandemic can present in several ways: depressive symptoms may have occurred before the initial point but disappeared by the comparison point; they may not have existed before the initial point but emerged by the comparison point; or they may have been present before the initial point and persisted at the comparison point. Hence, the use of longitudinal data is necessary.

- This study aims to conduct a time-series analysis of the differences in mental health levels by gender using the Korea National Health and Nutrition Examination Survey, which is a secondary dataset, and to identify groups that did not show depressive symptoms before the COVID-19 pandemic but experienced depression during the pandemic using longitudinal data from the Korean Longitudinal Survey of Women and Families. The study further aims to analyze changes in depressive symptoms in relation to changes in social experiences.
- ▶ Additionally, through survey data, the study seeks to analyze the relationship between mental health experiences during the COVID-19 pandemic and current levels of stress and depressive symptoms according to gender and socio-demographic variables. Based on the findings, the study aims to propose improvements to mental health policies from a gender perspective in times of disaster crises such as the COVID-19 pandemic.

Research Contents and Methodology

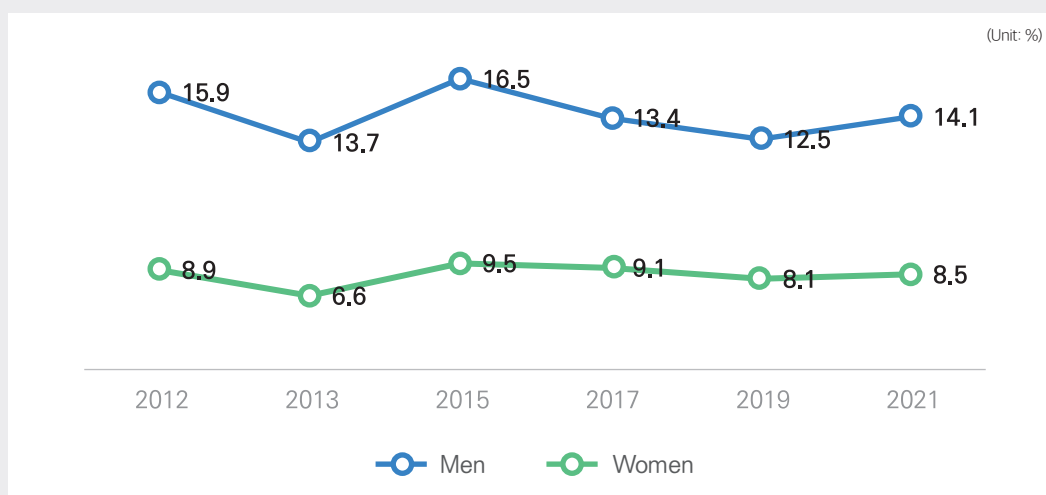
- This study conducted a review of existing domestic and international literature (including current policies, etc.) related to COVID-19 and mental health.
- Through the analysis of existing secondary data, the study examined gender differences in mental health levels over time and performed a comparative analysis of mental health levels before and during the COVID-19 pandemic. Longitudinal survey data were utilized to identify groups that developed depressive symptoms during the pandemic and to analyze the long-term changes in social experiences and depressive symptoms during the COVID-19 period.
- Additionally, to analyze the relationship between social experiences during the pandemic and mental health, as well as current levels of stress and depressive symptoms, a survey was conducted with 700 women and 500 men.
- In-depth interviews were conducted with eight individuals, divided by age group, who experienced stress and depressive symptoms during the COVID-19 pandemic.

Problem	Identification of research background and objectives Formulation of research content, method, and scope
Theoretical Discussion	Changes in social environment and mental health before and after COVID-19 Current status of mental health-related policies
Secondary Data Analysis	Comparative analysis of cross-sectional (The Korea National Health and Nutrition Examination Survey) and longitudinal (Korean Longitudinal Survey of Women and Families) data (using depression scales)
Survey on Current Conditions	Survey of past COVID-19 experiences and current stress and depression among adult men and women (using stress and depression scales)
In-depth Interviews	Investigation of adult women using the photovoice method to explore past COVID-19 experiences and health needs
Policy Recommendations	Policy recommendations based on quantitative and qualitative research findings

Trends and Changes in Mental Health Before and After the COVID-19 Pandemic

- Using the Korea National Health and Nutrition Examination Survey to examine changes focused on stress and depression during the COVID-19 period, it was found that there was no significant difference in depressive feelings between the pre-COVID-19 period and the COVID-19 period. However, women consistently showed higher levels of depression compared to men.

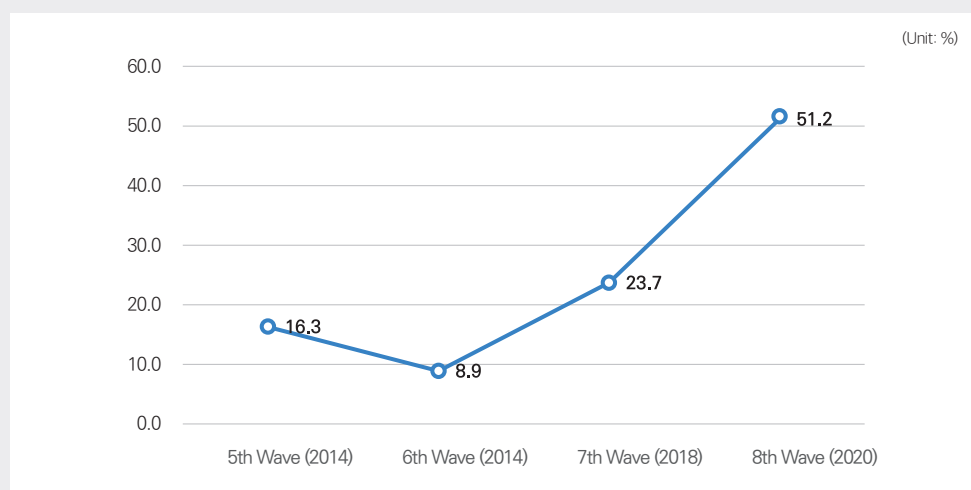
<Figure 1> Depression Experience Rate by Gender for Individuals Aged 19 and Older, 2012-2021



Source: Korea Disease Control and Prevention Agency (2021). 2021 National Health Statistics, pp. 88-89, reorganized.

- Due to the limitations of cross-sectional data, it is not possible to track changes for the group whose depressive symptoms disappeared during the COVID-19 period or the group that did not exhibit depressive symptoms before the pandemic but newly developed the symptoms during the COVID-19 period.
- ▶ When analyzing only the 8th wave of the Korean Longitudinal Survey of Women and Families conducted in 2020-2021, the proportion of women aged 19 and older who experienced depressive symptoms was 18.8%, showing a slight increase compared to the survey conducted immediately before the COVID-19 pandemic.
- The longitudinal data from the Korean Longitudinal Survey of Women and Families (2014-2021) were analyzed by categorizing respondents from the 8th wave into groups that developed depressive symptoms during the COVID-19 period, having not experienced them prior, and those who experienced depressive symptoms before the pandemic and continued to experience them during the COVID-19 period.
- ▶ The 8th wave survey, conducted in 2020-2021, coincided with the COVID-19 pandemic period.
- ▶ The proportion of the group that developed depressive symptoms during the COVID-19 period, having not exhibited symptoms before, was 51.2%. The group that entered depression in the 7th wave and continued to experience the symptoms in the 8th wave during the COVID-19 period was 23.7%. The group that entered depression in the 6th wave and continued to experience the symptoms in the 7th and 8th waves was 8.9%, while the group that entered depression in the 5th wave and continued to experience the symptoms in the 6th, 7th, and 8th waves was 16.3%.

<Figure 2> Classification of Groups by the Onset Time of Depressive Symptoms in the Korean Longitudinal Survey of Women and Families



- ▶ In the group that developed depressive symptoms during the COVID-19 period, the pre-COVID-19 average score on the CESD-10 was 3.71, but the score dramatically increased to 12.89 during the COVID-19 period. While it cannot be definitively concluded that this increase is solely due to the impact of COVID-19, it is possible that a considerable degree of negative influence contributed to depressive symptoms.

<Table 1> Total Average by Classification of Depressive Symptom Among Adult Women

(Unit: Score)

	5th Wave (2014)	6th Wave (2016)	7th Wave (2018)	8th Wave (2020)
Entered depression during the COVID-19 period	3.82	3.44	3.71	12.89
Entered depression in the wave before COVID-19 (2018) and continued	3.86	3.36	12.75	13.54
Entered depression two waves before COVID-19 (2016) and continued	4.56	13.93	13.29	13.79
Entered depression three waves before COVID-19 (2014) and continued	15.53	15.43	14.91	14.93

Data: Korean Longitudinal Survey of Women and Families, Analysis of 5th ~ 8th Waves

● An analysis was conducted on the changes in socio-demographic variables between the group that entered depressive symptoms during the COVID-19 period and the group that did not experience depressive symptoms from the 5th to the 8th waves of the Korean Longitudinal Survey of Women and Families. This analysis compared the variables from the first year(2007) and the COVID-19 period(2020-2021) during the 8th wave.

- ▶ The group that entered depressive symptoms during the COVID-19 period showed an increase in aging among women and their husbands, maintenance of lower educational attainment, experiences of divorce, widowhood, or separation, increased job loss among husbands, worsening marital relationships, lower satisfaction with husbands' participation in housework, and a tendency for lower or declining household income levels, as well as continued instability in employment status.
- ▶ The group that entered depressive symptoms during the COVID-19 period had lower average scores for depressive symptoms by socio-demographic variables before the pandemic, but their average scores for depressive symptoms considerably increased during the COVID-19 period.

Social Experiences and Mental Health Status During the COVID-19 Period

- To analyze social experiences and mental health during the COVID-19 period, as well as current levels of stress and depressive symptoms, a survey was conducted with 700 women and 500 men.
 - ▶ This survey aimed to avoid redundancy from the analysis of existing secondary data by focusing on the impact of socio-demographic changes during the COVID-19 period, including experiences related to stress, depression, and suicide, and whether these experiences have decreased as the COVID-19 situation has eased.
- When asked if they experienced more stress than usual due to changes in the social environment during the COVID-19 period(2020-2021), 70.8% of respondents reported yes, a figure significantly higher than that reported in previous secondary data analyses.

- ▶ The analysis of stress levels during the COVID-19 period by gender, age, and group showed that women in their 30s reported higher stress levels than men, with 73.0% of women from two-person households or larger reporting the highest stress levels compared to the other gender and other household types.
- ▶ Among vulnerable groups, such as those who experienced divorce, widowhood, or separation, the distribution of women and men who reported experiencing more stress than usual due to changes in the social environment during the COVID-19 period(2020-2021) was similar. Regarding the current economic situation of their households compared to the COVID-19 period, 78.6% of men and 78.7% of women responded that it was "difficult." This suggests that the COVID-19 pandemic negatively impacted stress levels for both men and women.
- ▶ A noteworthy finding is the gender difference in personal coping strategies for stress during the COVID-19 period (allowing for multiple responses). Women reported lower use of all personal coping strategies, except for "other," compared to men. Notably, 20.9% of women reported having no stress relief strategy, compared to 13.5% of men.

● **When looking at the distribution of those who experienced depression (defined as feeling sad or hopeless for two or more weeks continuously, to the extent that it interferes with daily life) due to changes in the social environment during the recent COVID-19 period(2020-2021), the gender gap was considerable at 13.4 %p.**

- ▶ The percentage of women who answered "yes" was 57.4%, compared to 44.0% of men.
- ▶ In terms of the gaps in the experience of depression by gender and socio-demographic variables, women in their 30s reported the highest rate at 65.7%. Among women with some college education or higher, the rate was 61.6%, the highest across educational levels.
- ▶ By marital status, 70.9% of women who had experienced divorce, separation, or widowhood reported depressive symptoms, while 60.4% of women in non-regular employment and 58.5% of women living alone also reported the highest rates of depressive symptoms. This shows that the experience of depressive symptoms during the COVID-19 period was particularly pronounced among women.
- ▶ Among those aware of the government's mental health support programs (which are operated through local district offices, community centers, mental health welfare centers at public health centers, and suicide prevention centers at government-designated hospitals for public mental health, etc.), 83.3% had no experience using these services.
- ▶ Regarding future intentions to use government support centers, 72.8% of respondents expressed a willingness to use them. However, groups that were less likely to express interest in future use included 35.9% of women who had experienced divorce, widowhood, or separation, 34.1% of socially vulnerable men whose household economic situation had worsened compared to the COVID-19 period, 36.2% of men living alone, and 37.3% of women living alone. These groups showed higher rates of disinterest in using the support centers compared to other demographic groups.

● **An analysis of whether conflicts and difficulties in relationships, employment, and social life worsened during the COVID-19 period revealed significant disparities based on gender and socio-demographic characteristics.**

- ▶ In terms of the experience of worsening relationships with others (such as friends, colleagues, or supervisors) during the COVID-19 period, there was a considerable gender gap among individuals in their 20s and 30s (41.2% of women in their 20s compared to 31.0% of men, and 33.3% of women in their 30s compared to 26.9% of men). Among non-wage working women, 40.7% reported worsening relationships, and 45.3% of women whose household economic situation worsened after the COVID-19 reported the highest levels of relationship difficulties compared to other groups.
- ▶ Regarding the intensification of difficulties due to discrimination in the job market during the COVID-19 period, 38.6% of women and 35.2% of men reported such experiences, indicating a slight gender gap. Among divorced, widowed, or separated men, 54.3% reported increased difficulties, while 51.9% of non-wage working women, 55.8% of women whose household economic situation worsened, and 39.0% of women living alone reported the highest levels of difficulty due to job market discrimination compared to their respective comparison groups.

● **The impact of worsened conflicts and difficulties during the COVID-19 period on current stress and depressive symptoms was measured using the Korean version of the Perceived Stress Scale. Overall, 47.0% of respondents reported experiencing severe stress, with 49.3% of women and 43.8% of men reporting severe stress.**

- ▶ There was a significant difference between groups whose conflicts and difficulties worsened during the COVID-19 period and those whose situations did not worsen. Those in the worsened group were more likely to report current stress symptoms.
- ▶ Among those who experienced increased hardship due to workplace disadvantages during the COVID-19 period, 59.8% of men and 73.1% of women reported experiencing severe stress, revealing a considerable gender gap.
- ▶ Women were more likely than men to report severe stress in situations where discrimination in the job market worsened, or where marriage, pregnancy, childbirth, or child-rearing became more difficult during the COVID-19 period. Women also reported higher levels of stress in situations where conflicts with others worsened.

● **Current depressive symptoms were analyzed using the CES-D Depression Scale. Overall, 41.8% of the respondents reported experiencing depressive symptoms, with 43.4% of women and 39.4% of men reporting such symptoms.**

- ▶ Cross-analysis of the intensification of conflicts and difficulties during the COVID-19 period revealed significant differences between groups whose situations worsened and those whose situations did not. The worsened group showed a strong association with current depressive symptoms. Unlike stress symptoms, there was little gender gap in current depressive symptoms, although the intensification of conflicts and difficulties during the COVID-19 period was associated with current depressive symptoms.

Women's Experiences and Health Needs During the COVID-19 Period

- Using the photovoice research method, the mental health impacts of COVID-19 and health needs were explored among eight socio-economically vulnerable women.
 - ▶ Seven key themes were identified regarding the mental health impacts of COVID-19: “feeling powerless due to loss of control over life,” “time flows differently from the rest of the world during social distancing,” “emotional regulation becomes difficult as the COVID-19 situation compounds existing struggles,” “heightened sensitivity leads to difficulties in human relationships,” “social activities are replaced by maladaptive behaviors,” “the full burden of caregiving falls on women, leading to psychological strain,” and “socio-economically vulnerable groups become more psychologically fragile due to COVID-19.”
 - ▶ Health needs for promoting mental health in the post-COVID-19 era were identified in five key policy areas related to depression: “providing opportunities for psychological counseling where individuals can express their feelings of depression,” “establishing a reliable support system for depression,” “strengthening the promotion of state-provided services,” “ensuring accessibility through services that are not bound by time and space,” and “expanding opportunities for participation in social activities.”

Implications

- During the COVID-19 period, disaster-related conditions (such as economic loss and social isolation) worsened both the social environment (e.g., disadvantages at work, discrimination in the job market, deteriorating relationships with others) and the family environment (e.g., changes in family roles and relationships with family members).
- Not only during the COVID-19 period but even now, there continues to be a tendency for stress to emerge or increase, which is associated with the onset and worsening of depressive symptoms during the pandemic.
 - ▶ In particular, socially vulnerable groups faced even more difficult situations during the COVID-19 period, which was found to have affected their levels of stress and depressive symptoms.
- The COVID-19 pandemic has negatively impacted stress and depressive symptoms based on gender, socio-demographic position, and circumstances.
 - ▶ Overall, the pandemic had a greater impact on stress and depressive symptoms among women in socially vulnerable groups than among men, highlighting the need for government policy support to consider both gender differences and intra-gender socio-demographic positions (social location) and circumstances.

● The survey confirmed that there was a group of adult women who entered depressive symptoms during the COVID-19 period. The use of longitudinal data revealed that the proportion of those entering depression during the pandemic was high. Also, the fact that stress and depressive symptoms still remain elevated post-pandemic requires attention.

- ▶ Cross-sectional analysis using the Korea National Health and Nutrition Examination Survey also indicated a deterioration in mental health during the COVID-19 period, but the differences in stress and depression levels before and after the pandemic were not significant, making it difficult to perceive the severity of the ongoing deterioration in mental health after the pandemic.
- ▶ Although the government is currently conducting periodic mental health surveys to track the situation, there are limitations in cross-sectional data. There is a need to build longitudinal data to continuously monitor changes in depressive symptoms. In this monitoring, it is essential not to overlook the consideration of gender differences and socio-demographic positions within genders.

Policy Recommendations

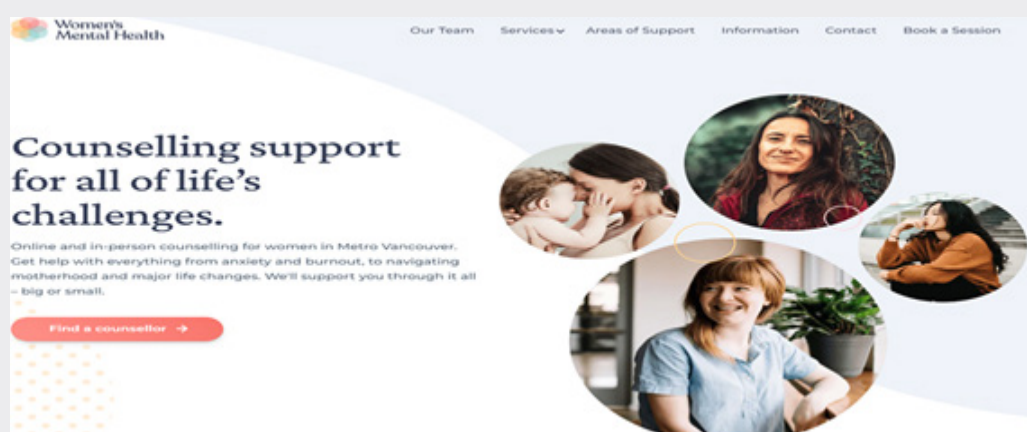
● Enhancing the Promotion and Accessibility of Mental Health Improvement Services

- ▶ The government must devise response strategies for the higher levels of stress and depressive symptoms among women compared to men, not only during the COVID-19 period but also currently.
- ▶ In this study's survey, aside from those who reported no particular mental difficulties, the most common reason(17.7%) for not utilizing government mental health support centers was "not knowing what kind of help is available." This suggests that government-led mental health improvement services have not been effectively promoted.
- ▶ Additionally, there is a need to enhance accessibility to these services. While the government provides a wide range of mental health information to the public through the National Center for Mental Health portal, the content on the website primarily focuses on academic understanding, diagnosis, treatment of specific mental illnesses, and self-screening services for different life stages and disorders.
- ▶ In Australia, the "Head to Health" website allows individuals to access mental health services provided by various public and private institutions. Similarly, Seoul operates the "Blutouch" website, where users can search for service providers, but the service is limited to Seoul residents. Therefore, there is a need for an integrated website under the Ministry of Health and Welfare that can efficiently connect mental health services and provide information to the public.

Establishing Customized Counseling Channels for Women and Socially Vulnerable Groups

- ▶ Participants in the study reported that during the COVID-19 pandemic, social distancing measures made it harder to regulate their feelings of depression, as everyday interactions and communication were disrupted. They experienced various psychological difficulties, including feelings of helplessness and challenges in interpersonal relationships. Therefore, there is a need to build customized counseling channels for women and socially vulnerable groups, focusing on high service accessibility and practical, specialized content.
- ▶ In Canada, the “Women’s Mental Health” service provides direct counseling for women’s mental health. The service offers specialized support based on issues such as anxiety, stress, relationships, parenting, and pregnancy that are common among women. It connects users with professional counselors based on these issues, and the information and expertise of counselors are made available on the website for users to review and choose, thereby building a trustworthy support system.
- ▶ Additionally, Canada’s GreenShield, a nonprofit health and wellness organization, ran a women’s mental health program that provided free mental health support to approximately 60,000 Canadian women between 2021 and 2022.

<Figure 3> Women's Mental Health Support Services Website in Canada



Source: Women's Mental Health website (<https://womensmentalhealth.ca>, Accessed: October 1, 2023)

Providing Opportunities for Social Participation

- ▶ When reviewing the responses from study participants, there was a preference for medical services such as counseling to treat depression. However, based on their experiences of emotional regulation difficulties due to social isolation during the COVID-19 period, participants emphasized the need for opportunities to engage in social activities.
- ▶ While the government provided various remote programs during the COVID-19 period to alleviate depressive symptoms, now that social activity restrictions have lifted, it is necessary to develop and promote programs for activities such as walking groups and cultural events. In particular, it is important to develop and offer social activity programs in small and medium-sized cities, as highlighted by the participants.

- ▶ An example of this is Canada’s “Run for Women,” a 5km/10km walk/run event held across 18 cities. The event is coordinated with companies, local charities, and foundations, and the funds raised in each region are directed toward local women’s mental health programs. This localized approach to funding meets specific regional mental health needs.
- ▶ Therefore, it would be worthwhile to consider introducing similar events in South Korea as a way to support women’s mental health recovery post-COVID-19 and to promote community-based mental health programs in the future.

● Campaign to Restore Healthy Lifestyles

- ▶ The impact of COVID-19 on women’s lives has been more pronounced. Study participants indicated that during the pandemic, as social activities were restricted, they adopted maladaptive behaviors such as excessive media consumption and gaming. In cases where emotional regulation was difficult due to depression, they resorted to unhealthy coping mechanisms like overeating or drinking, which led to a decline in their quality of life.
- ▶ A national educational campaign is necessary to help improve unhealthy lifestyle habits acquired during the COVID-19 period.

● Strengthening Family Counseling and Support by the Ministry of Gender Equality and Family

- ▶ Numerous studies have highlighted the importance of family functioning as a key factor in preventing the deterioration of mental health during the COVID-19 pandemic. Strengthening family cohesion can help prevent stress from progressing into depression during such times.
- ▶ To reduce stress in both workplaces and homes during the COVID-19 period, there is a need to promote family-friendly policies in workplaces, enhance gender equality awareness related to child-rearing and caregiving, and develop manuals and educational programs to address changes such as the worsening of family relationships and increased burdens of family roles caused by COVID-19.
- ▶ Activating family counseling and support policies under the Ministry of Gender Equality and Family could serve as an effective mental health prevention strategy during future crisis.

Related Ministry: Ministry of Gender Equality and Family(Women’s Policy Division)

Supervising Ministry: Ministry of Health and Welfare(Bureau of Health Policy, Bureau of Mental Health Policy)