

Mini Review

The necessity of emotion management for the general public: a comparison of diagnostic changes in two anger-related psychiatric disorders

Yoorim Hyun¹ and Myoungsoon You^{1,2*}

¹Department of Health Policy Research, Korea Institute for Health and Social Affairs, Sejong 30147, South Korea

²Department of Public Health Sciences, Graduate School of Public Health, Seoul National University, South Korea

Abstract

Although emotion management is essential to mental health, public health has not paid much attention to emotional conditions or disorders. By analyzing a nine-year diagnostic trend and sociodemographic characteristics of two mental disorders: *Hwabyung* and Intermittent Explosive Disorder (IED), this study demonstrated the importance of managing emotions precautionarily.

Data reconstructed from the National Health Insurance Service were used to analyze the yearly diagnostic trend in the two mental disorders characterized by anger.

Hwabyung was more common among women and middle-aged individuals, despite the varied number of diagnoses by year. Between 2010 and 2018, IED diagnoses gradually rose, with the average rate of increase the highest in the 20s for male IED diagnoses in 2017. The low prevalence of the IED in Korea compared to other Western countries and the gender and age differences in both *Hwabyung* and IED diagnoses suggest the role of cultural influences related to emotions (or emotional management).

Especially in light of the world's emphasis on resilience to COVID-19, these results indicate how public emotional management is essential during stressful situations. The results also highlight the need for community mental health programs tailored to gender and age.

The 3P model of public health emphasizes the prevention of disease, the promotion of health, and the protection of vulnerable populations [1]. It is essential to keep the general population mentally and emotionally well-managed to prevent mental health diseases and related burdens. Though emotions play a significant role in promoting mental health, public health has paid scant attention to the emotional conditions of the population or the disorders associated with those emotions. This study focuses on anger by examining two anger-related diseases: *Hwabyung* and Intermittent Explosive Disorder (IED). The purpose of this study is to demonstrate the need to manage emotions precautionarily by analyzing a nine-year diagnostic trend and sociodemographic characteristics of two mental disorders.

According to American Medical Association, *Hwabyung* is a mental disorder that is nonpsychotic within a Korean

cultural context that is characterized by the chronic suppression of distressing emotions and the endurance of oppressive and traumatic experiences [2]. There are several factors contributing to Koreans' suppression of emotions. First, Confucianism has been the moral foundation of Korean society for hundreds of years. Confucianism's priority is maintaining dignity and pride, so it is considered shameful to express feelings and embarrassing to engage in confrontation [3]. Familiar collectivism is considered to be one of the most dominant cultural principles in Korean society. This principle gives group needs priority over individual needs, which also plays a role in suppressing an individual's anger or negative feelings. Those who display anger or uncomfortable feelings are considered morally unacceptable because it can jeopardize cultural conformity. A result of the accumulation of suppressing emotions is *Hwabyung* [4].

More Information

*Address for Correspondence:

Myoungsoon You, Department of Public Health Sciences, Graduate School of Public Health, Seoul National University, Gwanak-ro, Gwanak-gu, Seoul 08826, South Korea, Email: msyou@snu.ac.kr

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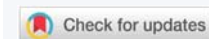
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Another mental disorder that mainly addresses anger is IED. Patients with IED present high levels of a minor (i.e., verbal aggression or physical aggression without harm) and/or major (i.e., physical aggression with harm) aggression disproportionate to the provocation [5]. A common issue among IED patients is poor emotion regulation [6]. An individual with an IED exhibits both elevated levels of anger [7] and more global difficulties with emotional regulation, such as increased affect intensity and reactivity [8-10]. According to Coccaro and McCloskey [11], IED is a widespread psychological condition that affects about 3% to 5% of the total population in the United States.

To analyze the yearly diagnostic trend in the two mental disorders characterized by anger, we utilized data reconstructed from the National Health Insurance Service (NHIS). We hypothesized that anger expression would differ by socioeconomic characteristics and analyzed *Hwabyung* as an anger-in disease and IED as an anger-out disease. South Korea has a social health insurance system, and all Korean citizens must be registered with the NHIS by law. The NHIS data have strength in that it is a national administrative data set covering 98% of the country's population [12]. However, since the data is a compilation of individual medical records, only each patient's sociodemographic and medical characteristics can be retrieved by reconstructing the medical records. The patients' economic status was measured using insurance fee variables by dividing the variable into five groups. This is a reliable estimate of the economic level since South Korea adopted a progressive tax system. Duplicate diagnoses, such as cases in which patients visited the hospital for the same diagnosis more than once, were excluded from the analysis. The National Health Insurance System (No. REQ000035411) and the Institutional Review Boards of the Seoul National University (IRB No. E2004/001-001) approved the study. All studies were conducted using SAS version 9.4 (SAS Institute Inc., Cary, NC, USA) and STATA SE ver. 13.0 program (Stata Corp., College Station, TX, USA).

The trend in *Hwabyung* diagnosis over gender, age, and economic status is illustrated in Figure 1. Although the total number of *Hwabyung* diagnoses varies annually, the number of diagnoses for females is consistently more significant than for males every year, on average 3.8 times. *Hwabyung* is more common among individuals between the ages of 50 and 59 and 60 and 69, while it is increasing at a greater rate among individuals between the ages of 20 and 30. Further, *Hwabyung* diagnoses were highest among individuals with the highest economic status in 2017.

As can be seen in Figure 2, the trend in IED diagnoses across gender, age, and economic status from 2010 to 2018 has gradually risen. Since 2010, the number of IEDs has steadily increased at an average rate of 10.7%. There was a significant increase in male IED diagnoses in 2017, with approximately five times more male IED diagnoses than females, according to

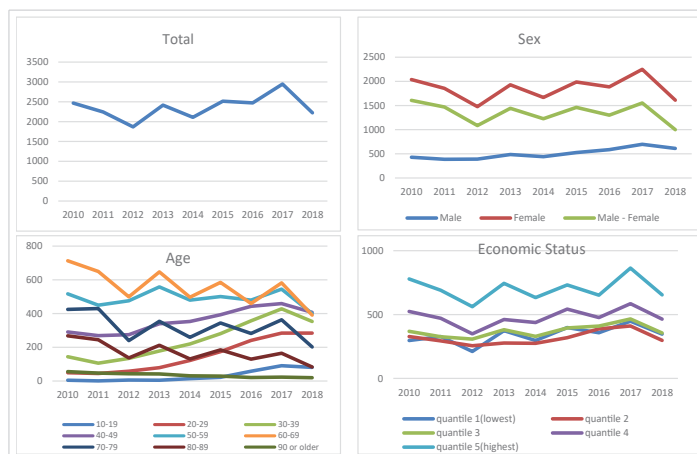


Figure 1: Diagnostic trends in *Hwabyung* from 2010 to 2018.

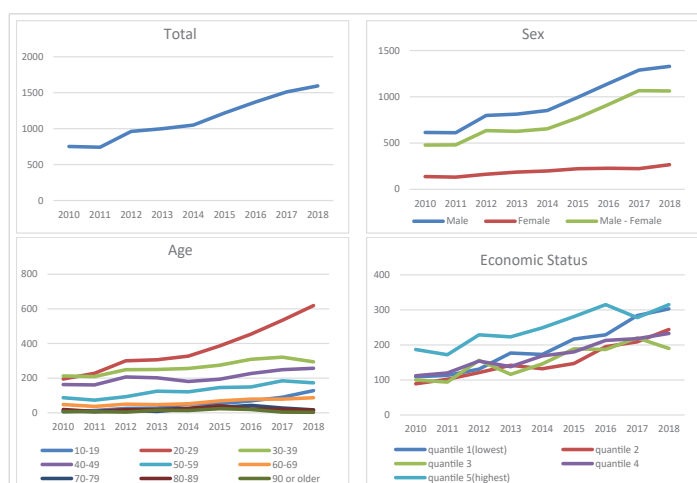


Figure 2: Diagnostic trends in Intermittent Explosive Disorder (IED), from 2010 to 2018.

subgroup analyses. Based on their age group, the average rate of increase is highest in their 20s, at 45.4%. By economic status, the highest economic status population group consistently had the greatest number of diagnoses in IED since 2010, except in 2017, when the lowest economic status population exceeded the highest economic status group. The lowest economic status has increased faster than other groups, with an average increase rate of 14.3%.

Several implications can be drawn from our exploratory comparison of anger disease, *Hwabyung* and IED. First, while Korea is one of the highest-income countries in East Asia, it has a very low rate of IED diagnoses compared to other Western countries, such as the United States. According to previous studies [13], approximately 5% of the U.S. population is estimated to have IED. Only 700-1,600 IED cases have been reported in Korea, representing less than 0.01% of the entire population. This is significantly low, even compared to Japan, another Asian country that is often compared to Korea. In Japan, IED prevalence is approximately 2.1%. As indicated in a previous study by Hong, et al. (2017), Koreans are more reluctant to seek mental health services even when they are needed, reflecting the cultural context of Korea. Based on the National Mental Health Survey data, they found that while



one out of four people experienced mental health problems at least once in their lifetime, only 22.2% of them utilized mental health services. In 2012, another Korean study found that only 11.2% of Koreans reported symptoms of schizophrenia and 42.9% reported symptoms of depression, significantly lower than that of Germans and Swiss, which were respectively 70.2% and 62.2% in Germany and 73.6% and 60.2% in Switzerland [14].

It may be because Koreans are less likely to have mental disorders. However, Asian cultural contexts may also play a role. Studies have shown that Asians have a negative attitude toward mental health problems [15-18]. Asians view mental health problems as something they must endure and overcome on their own. Asians who tend to suppress their emotions are less likely to recognize or admit their mental health needs [19]. This cultural attitude fuels reluctance regarding mental health treatment-seeking behaviors [16-20]. The stigma of mental health problems [15], misconceptions about mental health problems [19], and mental health illiteracy may also shape negative attitudes [21]. An open social atmosphere and public and private efforts to encourage individuals to seek treatment are also required for early detection and proactive mental health management.

Second, by gender, *Hwabyung* was more frequent in females than in males, and IED was more frequent in males than in females. Previous studies also reported a higher prevalence of *Hwabyung* in females than in males [22]. Reflecting on the key difference in the direction of anger expression between *Hwabyung*, as internalizing anger ('anger in'), and IED, as externalizing anger ('angering-out'), the gender difference in the prevalence of *Hwabyung* may be explained in relation to gender roles. In general, the socialization of gender roles significantly reinforces males to be aggressive and females to care for others' needs [23,24]. The internalization of anger ('anger in') is not an exception for Korean women regarding the cultural context in which they are situated at. Previous research found that Koreans are taught to express their anger differently in the course of their developmental stage, in that men's externalization of anger is rather accepted in a generous manner from an early age, whereas women are taught to suppress their anger [25].

Especially women in their 50s and 60s showed a high number of diagnoses in *Hwabyung*. This is consistent with the previous findings that *Hwabyung* is suffered mainly by middle-aged women in Korea [26-28]. The high number of diagnoses of *Hwabyung* in middle-aged women can be related to the context in which they are placed in terms of Confucian norm-based Korean society. For example, Kim, et al. [29] have shown how women's *Hwabyung* is related to their sex role in Korean society by explaining that a married woman's discontent with the oppressive household rule of her mother-in-law is expressed through *Hwabyung* [29]. Shin, et al. (2014) have also examined how the internalization of anger ('anger in') contributes to *Hwabyung* in middle-aged Korean women,

identifying internalized, lowered self-esteem and negative life events as the primary causes of *Hwabyung* [30]. It follows that *Hwabyung* management should be tailored to middle-aged women. For instance, a recent study shows that group-based intervention is especially effective in *Hwabyung* treatment for middle-aged women. According to Kim, et al. [31], group-based therapy empowers middle-aged female *Hwabyung* patients to speak out and share their stories with others with similar gender-role development [31]. Another study also suggested that group treatment was beneficial in that patients received empathy and support from others but also encouraged them to express empathy and support.

Finally, IED was observed to be most diagnosed in their 20s. Previous literature has identified that anger in their 20s is highly related to their stress about getting a job. Others also suggested that the reason for the recent increase in the diagnosis of depression and anxiety among young people in their twenties is the environment surrounding them, that is, our society, such as job shortages, extreme competition, wealth polarization, inequality, and excessive stress. Since IED patients frequently show symptoms such as depression and anxiety, it is worthy of consideration. While the primary goal for young adults in Korea is finding a job, stress comes from high job insecurity and financial strain on supporting themselves independently of their parents' attributes, in great part to their anger [32]. Financial aid policies should be expanded to assist them, as well as mental health promotion programs aimed at improving their emotional health. For the younger generation, in addition to one-on-one psychological counseling services with counselors, providing an online space where they can freely express their negative emotions experienced due to daily stress is one way to approach the problem since the young generation has shown to prefer online-based communication in dealing with their mental distress [33].

The current analysis has several limitations, including the inability to categorize primary, secondary, and tertiary hospitals, as well as the absence of provider factors. Since our analysis is exploratory, further research with a comparative analysis between *Hwabyung* and IED would be helpful. We recommend that future research consider additional variables that can reflect the social and cultural factors and provider factor variables such as hospital type.

Despite such limitations, our research is informative in that we have identified sociodemographic characteristics in relation to expressing emotions, especially anger, by examining the two mental disorders. Despite the fact that the public was equally affected by the suspension of social activities caused by COVID-19, it is implied that psychological distress will differ by population group. The results of our research suggest strengthening emotional management capacity, especially through diversified communication and community-based programs that consider gender and age, as a response to the mental health effects of COVID-19.



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