# Comparative Study of Mental Health Care Availability and Stigma in the United States and South Korea

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## Abstract

The value of mental health was highlighted by the occurrence of the COVID-19 pandemic, in which many people struggled due to a lack of social interaction and the pervasiveness of isolation. The rise of mental health care is not just for the United States, but can also be reflected in East Asian countries such as South Korea. This paper seeks to compare the availability of mental health care within the United States and South Korea and how such availability is influenced by factors such as economic barriers and geographical accessibility. In addition, this paper compares people's willingness to receive aid in the two countries, identifying stigmas and patterns within demographics as well as the influence of cultural values. This paper concludes that the primary barriers in seeking treatment differ between the United States and South Korea. While people in both the United States and South Korea are unable to seek treatment due to geographic and economic barriers, in comparison to the United States, South Korea encounters greater stigma against mental health which serves as the primary inhibitor to seeking treatment. Ultimately, this paper recommends that future research should focus on teenagers under 18, an age demographic underrepresented in the majority of the current available literature. Future studies should also address the need for greater mental health literacy (the ability to define mental health in a way that promotes awareness and treatment-seeking) within South Korea as well as the potential impacts of the stereotyping and biases regarding mental health disorders.

## Keywords

Mental Health Access, Stigma and Mental Illness, Telehealth, Health Care Disparities, Cross-Cultural Comparison

**Introduction**

In recent years, and in particular following the COVID-19 pandemic, the topic of mental health has risen in prominence. A lesser known field prior to the 21st century, mental health has gained newfound significance in the science world, but the availability and stigma of mental health treatment still remain obstacles in various countries such as the United States and South Korea.

Geographic and financial access to treatment varies across the different regions of the respective countries. Both the United States and South Korea allow their citizens to access mental health treatment through telehealth. However, despite this fact, a rural United States citizen is still two times less likely than an urban citizen to have easy access to a clinic as well as access to telehealth[1], while in South Korea, rural populations are underserved as mental health specialists often set up offices and clinics in areas with a high population density[2]. In addition, the privatization of mental health clinics in both the United States and South Korea is a significant economic barrier to receiving treatment. Although both the United States and Korea are affected by geographical and economic challenges, the structural barriers in each country affect those seeking treatment differently.

The difference in opinion towards mental health treatment in the United States and South Korea show that the significance afforded to mental health remains unequal across the world. Mental health literacy is one factor that influences the perception of mental health treatment in these two countries. The United States is considered to have a generally high degree of mental health literacy, as much of its language has shifted away from words containing implicit biases. In addition, systems like the 988 crisis hotline are well-advertised. On the other hand, the mental health literacy of South Korea is comparatively lower, utilizing language which stereotypes those who struggle mentally (in English, these words translate into derogatory terms like "psycho" or "crazy"). Such language may then lead to biases or the stigmatization of mental health disorders. For example, in the United States, 87% of adults stated that having a mental health disorder was not a source of shame[3]. However, in South Korea, the statistic was much lower, as only 25% of individuals did not mark mental health disorders as a sign of weakness[4]. Although mental health is a growing field, the data indicates the existence of potential cultural influences on the perception of mental health disorders and treatment, leading to vast differences in this field for the two countries.

In summary, in order to better understand the various ways in which South Korea and the United States treat the topic of mental health, this paper seeks to investigate topics including geographical and economic factors in availability of care as well as the impact of stigma and mental health literacy on acceptance of treatments. In addition to covering the effects of geography on treatment, this paper will examine the potential impacts of

1 National Alliance on Mental Illness. Mental health by the numbers. https://www.nami.org/about-mental-illness/mental-health-by-the-numbers/ (2023).

2 H.-Y. Hong. Does geographic access to a psychiatric clinic influence mental health care utilization? https://s-space.snu.ac.kr/bitstream/10371/134749/1/000000142450.pdf (2017).

3 American Psychological Association. Americans becoming more open about mental health. https://www.apa.org/news/press/releases/apa-mental-health-report.pdf (2019).

4 S. Nagar. The struggle of mental health care delivery in South Korea and Singapore. https://hir.harvard.edu/the-struggle-of-mental-health-care-delivery-in-south-korea-and-singapore (2022).

language on the perception of mental health. This paper will conduct its investigation through a comparison of the United States and South Korea, providing a comprehensive overview of the literature available on the mental health practices and treatments in both countries along with related perceptions, obstacles, and areas lacking in research.

## Discussion

*Geographic limitations*
The United States and South Korea face similar geographical barriers, particularly when comparing urban and rural access to mental health care. Across varying regions of the United States, the availability of mental health treatment is limited. Oftentimes, rural areas with more isolated populations are unable to receive adequate care simply due to a lack of professionals willing to move to such areas. Such professionals are unwilling to set up offices within rural towns due to a belief that there is a lack of economic opportunity[5]. While the more densely populated regions of the East and West coast (for example, cities like Los Angeles and New York) have more professionals, the central regions of the United States are comparatively understaffed as practitioners seek to develop their career where they believe there are more customers[6]. Table 1 demonstrates the number of psychiatric providers per 100,000 people in a state. In addition, over 60% of Americans that live in rural areas face a shortage of mental health providers[7]. Rural Americans also live much farther from hospitals—nearly twice as far as the average urban American[8].

**Table 1:** Psychiatric Providers per 100,000 Population in Select States of the United States

| State | Psychiatric Provider per 100,000 Population |
|---|---|
| California | 17.41 - 20.77 |
| Washington | 20.78 - 26.11 |
| Oregon | 20.78 - 26.11 |
| Arizona | 17.41 - 20.77 |
| Texas | 9.67 - 14.44 |
| Oklahoma | 9.67 - 14.44 |
| Arkansas | 9.67 - 14.44 |
| Iowa | 14.45 - 17.40 |

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5 S. L. Hastings, T. J. Cohn. Challenges and opportunities associated with rural mental health practice. *Journal of Rural Mental Health* **37**, 37–49 (2013).

6 A. J. Beck, C. Page, J. Buche, D. Rittman, M. Gaiser. Mapping supply of the U.S. psychiatric workforce. https://www.behavioralhealthworkforce.org/wp-content/uploads/2019/01/Y3-FA1-P2-Psych-Mapping-Full-Report-with-Appendix.pdf (2018).

7 D. A. Morales, C. L. Barksdale, A. C. Beckel-Mitchener. A call to action to address rural mental health disparities. *Journal of Clinical and Translational Science* **4**, 463–467 (2020).

8 O. Lam, B. Broderick, S. Toor. How far Americans live from the closest hospital differs by community type. https://www.pewresearch.org/short-reads/2018/12/12/how-far-americans-live-from-the-closest-hospital-differs-by-community-type (2018).

| | |
|---|---|
| Missouri | 14.45 - 17.40 |
| New York | 26.12 - 63.84 |
| Maine | 26.12 - 63.84 |
| Connecticut | 26.12 - 63.84 |
| Massachusetts | 26.12 – 63.84 |
| Virginia | 20.78 – 26.11 |

**Table 1** provides an approximate range for the number of psychiatric providers per 100,000 members of the population in certain given states of the United States. Numbers are derived from a diagram within a study by the University of Michigan[9].

Similarly, geographical barriers greatly impact the usage of mental health services in Korea. Despite having one of the highest suicide rates in the world, South Korea's psychiatric clinics have a very low rate of utilization[10]. In addition, patients living a distance greater than 8 km from a psychiatric clinic faced a 45.4% decrease in usage of said clinics. This was further aggravated by the fact that a positive correlation existed between the standard of living within an area and the concentration of psychiatrists present[11]. Rural regions can therefore be interpreted to face a shortage of psychiatrists due to much lower concentrations of people. Therefore, the research indicates that citizens in both the United States and Korea are affected by geographical barriers in seeking mental health treatment.

*Telehealth*
The rise of telehealth has allowed many Americans, even those living in rural areas, access to some form of care. According to a comparative study by Lin et al. (2021), the effectiveness of telehealth and in-person treatment reveals that there isn't much of a significant difference between the efficacy of the two. A review of 1,393 studies on telehealth led to the discovery that between telehealth and in-person treatments, post-treatment outcomes were generally the same. In addition, most patients returned for subsequent sessions regardless of whether the first session was held online or in-person[12]. A study by Bulkes et al. (2022) reveals that patients who underwent a telehealth form of mental health therapy, especially during the pandemic, were found to have received the same mental benefits and perceived the effectiveness of the treatment they received at the same level as those who received in-person therapy. Following treatment, participants were scored on depressive symptoms and quality of life, with 1192 participants surveyed each for telehealth and in-person treatments. The results proved to

9 Ibid (6)

10 D. S. Go, K. C. Shin, J. W. Paik, K. A. Kim, S. J. Yoon. A review of the admission system for mental disorders in South Korea. *International Journal of Environmental Research and Public Health* **17**, 9159 (2020).

11 Ibid (2)

12 T. Lin, T. G. Heckman, T. Anderson. The efficacy of synchronous teletherapy versus in-person therapy: A meta-analysis of randomized clinical trials. *Clinical Psychology: Science and Practice* **29**, 167–178 (2022).

be mostly equal[13]. However, Americans living in rural areas are still less likely to lack reliable access to the Internet[14], limiting the availability of mental health treatments. Although people in the United States still encounter challenges when trying to access mental health treatment, telehealth has become a helpful tool for some. Nevertheless, we can conclude telehealth has a lesser impact on rural areas of the U.S. due to decreased Internet access.

In South Korea, the usage of telehealth was less dependent on geographic location and more dependent on the physical status of the patient. For example, older patients, particularly those above 80 years of age and with difficulty moving were much more likely to receive telehealth than other demographics. The severity of a mental illness had little bearing on a patient's decision to receive telehealth or in-person care, and retention rates for treatments were high[15]. This suggests that South Korea also faced no significant difference in effectiveness of treatments between telehealth and in-person forms of care. Although telehealth is an effective method of receiving care in both the United States and Korea, it does not resolve the barrier presented by geography in both countries. It serves as a tool of convenience for the elderly in both rural and urban areas, but fails to resolve key obstacles presented by geography, as the Internet is simply less accessible in rural areas to begin with.

*Economic barriers*
Both the United States and South Korea suffer from economic barriers in receiving mental health care. Unlike the United States, South Korea utilizes a system of universal health insurance. However, most mental health services within Korea are concentrated within the private sector[16]. As such, problems arise with affordability. Although insurance does provide access to some level of mental health treatment, the majority of mental health clinics and available services (approximately 90%) stem from the private sector. This privatization of mental health services apart from South Korea's health care system leads to unaffordable prices for large portions of the population. Most mental health clinics are private practice and remain unincluded within the free medical plan which citizens have.

In the United States, which utilizes a privatized insurance model, mental health care is also extremely expensive. A national survey revealed that 27 million patients are not treated for mental health illnesses[17]. According to a Forbes article, a session of

13 N. Z. Bulkes, K. Davis, B. Kay, B. C. Riemann. Comparing efficacy of telehealth to in-person mental health care in intensive-treatment-seeking adults. *Journal of Psychiatric Research* **145**, 347–352 (2022). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8595951/

14 M. E. Curtis, S. E. Clingan, H. Guo, Y. Zhu, L. J. Mooney, Y. I. Hser. Disparities in digital access among American rural and urban households and implications for telemedicine-based services. *Journal of Rural Health* **38**, 512–518 (2022).

15 K. H. Kim, S. M. Lee, M. Hong, K. M. Han, J. W. Paik. Trends in telemedicine utilization for mental illness during the COVID-19 pandemic: An analysis of a nationwide database in Korea. *BMC Psychiatry* **23**, 777 (2023).

16 S. Roh, S. U. Lee, M. Soh, V. Ryu, H. Kim, J. W. Jang, H. Y. Lim, M. Jeon, J. I. Park, S. Choi, K. Ha. Mental health services and R&D in South Korea. *International Journal of Mental Health Systems* **10**, 45 (2016). https://link.springer.com/content/pdf/10.1186/s13033-016-0077-3.pdf

17 Mental Health America. Access to care data 2022. https://mhanational.org/issues/2022/mental-health-america-access-care-data (2022).

psychotherapy costs anywhere from \$100 to \$200[18]. Assuming an average of \$150 per session and a session every week, a single patient may spend around \$7800 on psychotherapy over the course of a year. However, the median household income in the United States is around \$75,000 according to a 2022 study, making \$7800 per person a rather expensive sum in comparison to the average US household[19]. In this sense, income is a significant factor in the restrictions on utilization of mental health treatments. This is further supported by a study run by both KFF and CNN, in which cost of care was the most commonly cited reason for being unable to receive treatment[20]. Furthermore, although mental health care is expensive, in both the United States and South Korea, much of the burden in covering the cost of treatment falls on the patient: 44% in the United States[21] and 63% in South Korea[22]. Though the health insurance systems differ, the privatization of mental health treatments creates clear economic barriers to receiving care in both South Korea and the United States.

*Stigmatization of mental health treatment*
Despite growing awareness and support for mental health, South Korea faces more severe challenges associated with the stigmatization of mental health disorders and treatment than the United States. In South Korea, stigma has hindered the usage of mental health services. According to a survey conducted by Seong et al. (2009), less than 2% of all Koreans actually utilized mental health services. This is despite the fact that around 20% of adults are estimated to be suffering from a mental illness or are deemed to be in a situation which demands mental support. In addition, Koreans suffering from psychiatric disorders often avoided receiving treatment, as shown by this study. 23% of participants in a survey revealed a desire to resolve their mental struggles on their own, while another 23% refused to acknowledge that they were suffering from a psychiatric disorder[23]. Table 2 displays the especially low utilization of mental health experts In South Korea for any disorder, with usage rates never exceeding 30% and typically not exceeding 10%[24]. In comparison, 86% of United States adults expressed optimism—they felt that people with mental health disorders could get better through time and treatment[25]. This indicates that stigma is a greater barrier to treatment in South Korea than the United

18  A. Lauretta. How much does therapy cost in 2024? Forbes. https://www.forbes.com/health/mind/how-much-does-therapy-cost/ (2024).

19  G. Gluzman, M. Kollar. *Income in the United States: 2022*. United States Census Bureau. https://www.census.gov/library/publications/2023/demo/p60-279.html (2023).

20  L. Lopes, A. Kirzinger, G. Sparks, M. Stokes, M. Brodie. KFF/CNN Mental health survey in America. *KFF*. https://www.kff.org/report-section/kff-cnn-mental-health-in-america-survey-findings/ (2022).

21  S. Melek, et al. Addiction and mental health vs. physical health: Widening disparities in network use and provider reimbursement. https://s-space.snu.ac.kr/bitstream/10371/134749/1/000000142450.pdf (2019).

22  J. I. Park, M. Jeon. The stigma of mental illness in Korea. *Journal of Korean Neuropsychiatric Association* **55**, 299–309 (2016).

23  S. J. Cho, J. Y. Lee, J. P. Hong, H. B. Lee, M. J. Cho, B. J. Hahm. Mental health service use in a nationwide sample of Korean adults. *Social Psychiatry and Psychiatric Epidemiology* **44**, 943–951 (2009).

24  S. J. Rim, B. J. Hahm, S. J. Seong, J. E. Park, S. M. Chang, B. S. Kim, H. An, H. J. Jeon, J. P. Hong, S. Park. Prevalence of mental disorders and associated factors in Korean adults: National Mental Health Survey of Korea 2021. *Psychiatry Investigation* **20**, 262–272 (2023).

25  Ibid (3)

States. Studies conducted in both South Korea and the United States reveal the reasons behind a greater unwillingness to seek treatment in South Korea. In the United States, approximately 47% of survey respondents expressed an unwillingness to interact with people struggling from a mental disorder. However, in Korea, this statistic was much higher, standing at about 76.6%[26].

Korea also currently lacks public awareness on mental health literacy, as shown by a paper published by Dr. Jong Il-Park and Mina Jeon in 2016. In other words, it's possible that terms which carry stereotypes regarding mental health such as "psycho" or "nuts" may remain attached to those suffering from any sort of mental health disorder in Korea. In contrast, the United

States utilizes terms such as "mental hardship", which carry no negative connotation. In addition, according to this study, Korea also suffers from a lack of anti-stigma campaigns—such campaigns which were found to be effective in other countries are present within Korea, but to a significantly lesser degree[27].

**Table 2:** Overall Utilization of Mental Health Experts for Patients with a 12-Month Mental Disorder Diagnosis:

| Diagnosis | Overall Utilization of Mental Health Experts (12-Month Diagnosis) |
|---|---|
| Alcohol Use Disorder | 2.6% |
| Nicotine Use Disorder | 1.1% |
| Depressive Disorder | 28.2% |
| Anxiety Disorder | 9.1% |
| Any Disorder | 7.2% |

**Table 2** explains the rate of utilization of mental health experts for patients with a 12-Month mental disorder diagnosis in Korea. Numbers are derived from a study by Rim et al[28].

In a worldwide survey conducted by the World Health Organization, a low perceived need for treatment was considered a common barrier in receiving treatment. As a participant in the survey, it appeared that the United States suffered from a similar barrier. This sets the United States apart from Korea, as although a failure to recognize treatment as necessary was a key inhibiting factor in both countries, complete denial of the possibility of treatment was an equally dominant factor in South Korea alone. This is further proven

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26 S. Y. Min, Y. I. Wong. Association between community contextual factors and stigma of mental illness in South Korea: A multilevel analysis. *Psychiatric Quarterly* **88**, 853–864 (2017).

27 Ibid (22)

28 Ibid (24)

by the fact that although attitudinal barriers existed, none of the mentioned common barriers suggested a complete denial that someone was afflicted with a mental disorder in the United States[29].

However, an interesting factor to consider lies within mental health stigma and the rise in report rates. In the past few years, stigma related to mental health treatment has gradually begun to die away in the United States as people grow more accepting and open minded of differences between one another. Due to the decreased stigma related to receiving mental health assistance, it's highly likely that a greater number of United States citizens are now stepping forward as they feel safer about receiving treatment[30]. Table 3 exemplifies this, as we can see that from 1996 - 2018, negative perceptions surrounding people with depression continually decreased. Because of this, the increased numbers in terms of instances of mental health struggle are not simply reflective of greater availability, but also in the willingness of people in the United States to be more open about mental health as a whole. While mental health awareness has increased over the years, mental health stigma continues to be a barrier in countries–particularly in South Korea.

**Table 3:** Estimated Net Change in Probability of Preferring Social Distance from Individuals with Depression from 1996 - 2018

| Condition | Change in Probability |
|---|---|
| Work With (Women) | -18% |
| Work With (Men) | -17% |
| Have as Neighbor (Women) | -12% |
| Have as Neighbor (Men) | -3% |
| Socialize With (Women) | -23% |
| Socialize With (Men) | -18% |
| Make Friends (Women) | -11% |
| Make Friends (Men) | -12% |
| Marry into Family (Women) | -21% |

29 L. H. Andrade, J. Alonso, Z. Mneimneh, J. E. Wells, A. Al-Hamzawi, G. Borges, E. Bromet, R. Bruffaerts, G. de Girolamo, R. de Graaf, S. Florescu, O. Gureje, H. R. Hinkov, C. Hu, Y. Huang, I. Hwang, R. Jin, E. G. Karam, V. Kovess-Masfety, D. Levinson, H. Matschinger, S. O'Neill, J. Posada-Villa, R. Sagar, N. A. Sampson, C. Sasu, D. J. Stein, T. Takeshima, M. C. Viana, M. Xavier, R. C. Kessler. Barriers to mental health treatment: Results from the WHO World Mental Health surveys. *Psychological Medicine* **44**, 1303–1317 (2014).

30 B. A. Pescosolido, A. Halpern-Manners, L. Luo, B. Perry. Trends in public stigma of mental illness in the US, 1996–2018. *JAMA Network Open* **4**, e2140202 (2021).

| | |
|---|---|
| Marry into Family (Men) | -16% |
| Live Near Group Home (Women) | +1% |
| Live Near Group Home (Men) | -9% |

**Table 3** provides the estimated net change in probability of a given individual to prefer social distance from another individual with depression in 1996 vs 2018. Data is derived from a study by Pescosolido et al[31].

*Awareness and Healthcare in Relation to Stigma surrounding Mental Health Care*
Many instances of disorders which require care often go unnoticed simply because the person affected fails to recognize the need to receive treatment. According to the National Institute of Mental Health, approximately 52.8% of adults needing mental health treatment did not receive it. However in South Korea, this number was much greater at 84.7%[32]. Furthermore, there were severe differences between the degree of trust South Korean and US citizens placed in their healthcare system. Around 48.6% of South Korean citizens expressed a great degree of confidence in their healthcare system, while this number stood at about 18.7% for United States citizens [33]. Considering the existing stigma surrounding mental health in South Korea, an important factor in the greater trust Koreans have in their system may be attributed to the lack of presence mental health holds in said healthcare system. The low mental health presence in South Korea's healthcare system as well as the greater stigma towards mental health present in South Korea is further reinforced by the degree to which citizens in South Korea self-medicate for mental health disorders in comparison to the United States. While 85% of Koreans are found to self-medicate, only 38.1% of United States citizens choose to self-medicate[34].

*Seeking treatment: the youngest and oldest demographics*
Despite the availability of various mental health treatments and resources, there are many people who refuse to seek out these resources and utilize them. In particular, students struggle to seek out treatment. Examples of resources include online apps or websites which provide mental health services free of charge along with school counselors willing to listen and answer to students. However, many of these resources go unused simply because students do not trust them[35]. Trust is noted to be a fundamental aspect of mental health treatment. In order for treatments to be effective, the person receiving the

31 Ibid (30)

32 S. Roh, et al. Mental health services and R&D in South Korea. https://ijmhs.biomedcentral.com/articles/10.1186/s13033-016-0077-3 (2016).

33 D. Zhao, H. Zhao, P. D. Cleary. International variations in trust in health care systems. *International Journal of Health Planning and Management* **34**, 130–139 (2019).

34 S. Lazareck, J. A. Robinson, R. M. Crum, R. Mojtabai, J. Sareen, J. M. Bolton. A longitudinal investigation of the role of self-medication in the development of comorbid mood and drug use disorders: Findings from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). *Journal of Clinical Psychiatry* **73**, e588–e593 (2012).

35 N. Doan, K. A. Patte, M. A. Ferro, S. T. Leatherdale. Reluctancy towards help-seeking for mental health concerns at secondary school among students in the COMPASS study. *International Journal of Environmental Research and Public Health* **17**, 7128 (2020).

treatment must show a willingness to be vulnerable with the person giving the treatment. Oftentimes, students are unable to show vulnerability with an adult. This is due to fears that said adult will report personal information to their parents or guardians[36]. Because of this, students are unable to trust the anonymity of school provided resources. In fact, many students spend an average of 3.5 hours a week helping one another with their mental health, opting to support one another over using school or adult provided resources[37]. The idea of reaching out and asking for help can also be seen as daunting to many students. Although the stigma surrounding mental health has decreased as of late, pursuing mental health treatment can still make someone feel weak and helpless, further aggravating many people's refusal to seek out help.

It is to be noted that South Korea has one of the highest suicide rates out of any country in the world. In addition, the age group most prone to death by suicide within Korea is the younger generation, namely those in their thirties and below. The cultural norms enforced in South Korea affect the willingness of those struggling to self-report and seek help for themselves and others even when it is truly necessary. This is despite all the physical and economic barriers that already exist within South Korea towards receiving mental health treatment. Indeed, the death of many teenagers by suicide serves as no coincidence, especially those suffering from the South Korean education system[38]. The younger generations in South Korea and the United States may similarly hold a distrust towards means of seeking treatment through adults.

At the same time, there exists a strong similarity between the United States and South Korea in the elderly seeking treatment. Although mental health remains stigmatized by multiple demographics in South Korea, the difference between the youngest age group (18 - 29) and the oldest age group (ages 65+) was stark in the United States. A study from December of 2023 found age to be inversely proportional to the rate of seeking treatment (greater age equated to a lesser rate of seeking treatment)[39]. Furthermore, in a survey on mental health in the United States run by KFF and CNN, people ages 18 - 29 were almost four times likely to rate their mental health negatively in comparison to people ages 65+ in the U.S. More specifically, around 34% of participants ages 18 - 29 gave a negative rating, as opposed to 9% of participants ages 65+[40]. Although the reason for this discrepancy is unclear, one possibility is that the elderly in the United States are less receptive to the idea of mental health care even if they do require treatment. Another

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36 T. Moses. Being treated differently: Stigma experiences with family, peers, and school staff among adolescents with mental health disorders. *Social Science & Medicine* **70**, 985–993 (2010). https://doi.org/10.1016/j.socscimed.2009.12.022

37 B. Hanckel, A. Henry, E. Dolan, J. M. Mamalipurath. You've got a friend: Young people help each other with their mental health for 3.5 hours every week. *The Conversation*. https://theconversation.com/youve-got-a-friend-young-people-help-each-other-with-their-mental-health-for-3-5-hours-every-week-194530 (2022).

38 J.-H. Chung, Y.-S. Park. A study on the relationship between academic stress and mental health among high school students in South Korea. *Research and Advances in Education* **3**, 54–65 (2024).

39 C. E. Parsons, K. L. Purves, M. R. Davies, J. Mundy, S. Bristow, T. C. Eley, G. Breen, C. R. Hirsch, K. S. Young. Seeking help for mental health during the COVID-19 pandemic: A longitudinal analysis of adults' experiences with digital technologies and services. *PLOS Digital Health* **2**, e0000402 (2023).

40 Ibid (23)

possibility is that structural and economic factors may lead to stronger support for the elderly, leading to better quality of life, compared to young adults who may face mental health challenges exacerbated by environmental influences. Regardless of the reason, the data suggests that younger populations may be more likely to seek out treatment compared to other age demographics. This creates a similarity between the United States and South Korea in perception of mental health treatment. Although South Korea is more affected by mental health stigma, older demographics in both countries may hold stigma towards mental health care to a relatively equal degree.

To objectively analyze the relationship between the social and individual factors and the availability of the insurance covered mental health care, five factors were set as independent variables all of which collectively contribute to the dependent variable.

**Table 4:** Percentage Representations of Variables for South Korea

| Perceived stigma (V1) (%) | Failure to recognize the need (V2) (%) | Failure to recognize the illness (V3) (%) | Trust in healthcare system (V4) (%) | Preference for self-medication (V5) (%) | Availability of insurance covered care (D) (%) |
|---|---|---|---|---|---|
| 68.9 | 13.8 | 76.5 | 43.7 | 76.5 | 33.3 |
| 72.8 | 14.5 | 80.8 | 46.2 | 80.8 | 35.2 |
| 76.6 | 15.3 | 85 | 48.6 | 85 | 37 |
| 80.4 | 16.1 | 89.3 | 51 | 89.3 | 38.9 |
| 84.3 | 16.8 | 93.5 | 53.5 | 93.5 | 40.7 |

**Table 4** provides percentages of the five independent variables (V1 to V5) and the dependent variable (D) for South Korea (30-34).

**Table 5:** Percentage Representations of Variables for the United States

| Perceived stigma (V1) (%) | Failure to recognize the need (V2) (%) | Failure to recognize the illness (V3) (%) | Trust in healthcare system (V4) (%) | Preference for self-medication (V5) (%) | Availability of insurance covered care (D) (%) |
|---|---|---|---|---|---|
| 42.3 | 47.5 | 36 | 16.8 | 34.3 | 50.4 |
| 44.7 | 50.2 | 38 | 17.8 | 36.2 | 53.2 |
| 47.0 | 52.8 | 40 | 18.7 | 38.1 | 56 |
| 49.4 | 55.4 | 42 | 19.6 | 40 | 58.8 |
| 51.7 | 58.1 | 44 | 20.6 | 41.9 | 61.6 |

**Table 5** provides percentages of the five independent variables (V1 to V5) and the dependent variable (D) for the United States (30-34).

Systems of five linear equations for each country was then developed, using adjusted percentages for the five independent variables (100%, ±5%, ±10%).

*South Korea*

90% adjustment: $69a_1 + 14a_2 + 77a_3 + 44a_4 + 77a_5 = 33$

95% adjustment: $73a_1 + 15a_2 + 81a_3 + 46a_4 + 81a_5 = 35$

100% adjustment: $77a_1 + 15a_2 + 85a_3 + 49a_4 + 85a_5 = 37$

105% adjustment: $80a_1 + 16a_2 + 89a_3 + 51a_4 + 89a_5 = 39$

110% adjustment: $84a_1 + 17a_2 + 94a_3 + 54a_4 + 94a_5 = 41$

*United States*

90% adjustment: $42a_1 + 48a_2 + 36a_3 + 17a_4 + 34a_5 = 50$

95% adjustment: $45a_1 + 50a_2 + 38a_3 + 18a_4 + 36a_5 = 53$

100% adjustment: $47a_1 + 53a_2 + 40a_3 + 19a_4 + 38a_5 = 56$

105% adjustment: $49a_1 + 55a_2 + 42a_3 + 20a_4 + 40a_5 = 59$

110% adjustment: $52a_1 + 58a_2 + 44a_3 + 21a_4 + 42a_5 = 62$

**Table 6:** Calculated Coefficients for South Korea and the United States

| Variables | Coefficient values for South Korea | Coefficient values for the United States |
|---|---|---|
| Perceived Stigma | 0.125 | 0.399 |
| Failure to recognize the need | 9.411e-13 | 0.448 |
| Failure to recognize the illness | 0.139 | 0.340 |
| Trust in healthcare | 0.079 | -9.166e-13 |
| Preference for self-medication | 0.139 | 1.07e-13 |

**Table 6** provides the calculated values of the coefficients for each of the five independent variables for South Korea and the United States.

*Methods*

To provide an objective justification of the greater presence of stigma associated with mental illness in South Korea due to the lesser access and availability of a proper care system compared to the United States, a quantitative analysis was necessary. The data used to create the regression models were obtained from a range of reputable sources to ensure accuracy. For the United States, information on perceived stigma and attitudes toward mental illness was primarily drawn from reports by the American Psychological Association (2019), National Institute of Mental Health (2022), and studies published in JAMA Network Open and Psychiatric Quarterly. Access and insurance-related statistics

were obtained from Mental Health America's 2022 Access to Care dataset and the Kaiser Family Foundation (KFF) Mental Health Survey (2022). For South Korea, variables such as stigma, self-medication, and trust in healthcare were based on national studies including Park and Jeon (2016), Roh et al. (2016), and Rim et al. (2023). Additional data were gathered from government reports and international health comparisons published by the World Health Organization and peer-reviewed public health journals. Although the data were sourced from separate studies, all variables were standardized to percentage values and selected to ensure national-level scope and conceptual consistency across the two countries. This allowed for an integrated comparative regression model, while acknowledging that minor methodological differences may exist between sources.

*Data Collections and Variable Definitions*
To analyze the relationship between societal and individual factors and the availability of insurance-covered mental health care, data was sourced for the following independent variables.
Perceived stigma (V1): The percentage of individuals perceiving stigma when revealing mental illness.
Failure to recognize the need for treatment (V2): The percentage of individuals unable to recognize that they need treatment for mental health issues.
Failure to recognize mental illness (V3): The percentage of individuals unaware that they are mentally ill.
Trust in healthcare system (V4): The percentage of individuals expressing trust in their country's healthcare system.
Preference for self-medication (V5): The percentage of individuals preferring self-medication over seeking professional mental health treatment.

The dependent variable (D) was defined as the percentage availability of insurance-covered mental health care in the country.
Data was collected for South Korea and the United States. The original percentages were adjusted systematically by scaling factors of 90%, 95%, 100%, 105%, and 110%, generating five sets of equations for each country.

*Formulation of the Systems of Equations*
The relationship between the independent variables (V1 to V5) and the dependent variable (D) was modeled using the following linear equation:

$$a_1 \cdot V_1 + a_2 \cdot V_2 + a_3 \cdot V_3 + a_4 \cdot V_4 + a_5 \cdot V_5 = D \qquad \text{(Eq.1)}$$

Where:
$a_n$ are the coefficients representing the relative contribution of each independent variable to insurance availability.
$V_n$ are the values of the five independent variables.
$D$ is the observed value of the dependent variable.

Five equations for each country were created by substituting the adjusted values of $V_1$ through $V_5$ and $D$ into the equation.

For example, for South Korea,
Original values of the variables (100% adjustment):

$$76.6a_1 + 15.3a_2 + 85a_3 + 48.6a_4 + 85a_5 = 37$$

Adjusted values of the variables (90% adjustment):

$$68.9a_1 + 13.8a_2 + 76.5a_3 + 43.7a_4 + 76.5a_5 = 33.3$$

Similar equations were constructed for the remaining adjustments (95%, 105%, and 110%). The same process was applied to data from the United States.

*Solving the Coefficients and Equations*
The system of five equations for each country was represented in matrix form as follows:

$$A \cdot x = B \quad\quad\quad\quad\quad\quad \text{(Eq.2)}$$

Where:
$A$ represents the matrix of the coefficients derived from the adjusted values of the variables $V_1$ through $V_5$.
$x$ represents the column vector of the unknown coefficients, $a_1$ through $a_5$.
$B$ represents the column vector of the adjusted values of the independent variable, $D$

For example, for South Korea:

$$A = \begin{matrix} 68.9 & 13.8 & 76.5 & 43.7 & 76.5 \\ 72.8 & 14.5 & 80.8 & 46.2 & 80.8 \\ 76.7 & 15.3 & 85.0 & 48.6 & 85.0 \\ 80.4 & 16.0 & 89.3 & 51.0 & 89.3 \\ 84.3 & 16.8 & 93.5 & 53.5 & 93.5 \end{matrix} \quad\quad \text{(Eq.3)}$$

The vector for the unknown coefficient $a_n$:

$$x = \begin{matrix} a1 \\ a2 \\ a3 \\ a4 \\ a5 \end{matrix} \quad\quad\quad\quad \text{(Eq.4)}$$

*Interpretations*

Each coefficient $a_n$ quantifies the relative contribution of each independent variable, $V_n$ to the availability of the insurance covered mental health care. A positive coefficient indicates a direct relationship between between $V_n$ and $D$. A negative coefficient indicates an inverse relationship between the variables.

**Conclusion**

Although the United States and South Korea have seen an increased awareness of mental health, both countries still face challenges in the availability and stigmatization of receiving treatment. The geography of the United States and South Korea provide similarly significant barriers to the availability of mental health treatments, inhibiting access to in-person clinics and telehealth treatments through decreased Internet access. In addition, economic barriers are equal obstacles within both countries, particularly in terms of a lack of cost coverage and sufficient insurance. The existence of stigmas is perhaps one of the greatest barriers within South Korea to both the availability and acceptance of mental health treatments in comparison to the United States. Finally, the United States may suffer from stigma to a lesser degree, but it is important to note that similarities in perception exist between the youngest and oldest demographics in the two countries. The current literature and data indicate that the challenges in the United States are more often associated with geographic and economic barriers while South Korea seems to have fewer people seeking treatment potentially due to the stigmatization of mental health disorders.

As the field of mental health continues to grow, more studies may be able to cover new and underrepresented areas of research. During the writing of this paper, there was a heavy lack of sources which provided data for demographics under the age of 18. Perhaps in the future, additional studies ought to be conducted in order to determine precise data points for the conditions teenagers must undergo, particularly regarding trust in adults and towards a pre-established mental health system. However, the lack of data was also understandable, as there are likely more procedures associated with having people who are not yet legal adults consent to participation in a scientific study.

In addition, another lacking point of research is mental health literacy, particularly within South Korea. Oftentimes, implicit biases are produced by terms associated with mental health and with a derogatory meaning such as "crazy" or "rabid". Studying the true impacts of mental health literacy and its value may be essential to the availability and acceptance of treatment in a country  with greater mental health stigma.

Comparing the acceptance and availability of mental health services in the United States and South Korea reveals disparities between countries and lays the groundwork for future action towards destigmatizing the idea that requiring treatment is negative. In doing so, the field of mental health can grow to equally benefit subsequent generations on a global scale and ensure equity of access to all those in need

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