

MENTAL HEALTH AND ECONOMIC WELL-BEING IN INDONESIA: A LITERATURE REVIEW FROM THE PERSPECTIVE OF CIRCULAR AND CUMULATIVE CAUSATION

¹Kartika Syandra Refriza,²Bhimo Rizky Samudro,³Izza Mafruhah

^{1,2,3}Department of Economics and Development Studies, Faculty of Economics and Business, Sebelas
Maret University, Surakarta, Indonesia

Author's email:

¹catcha.ksr@gmail.com; ²bhimosamudro@staff.uns.ac.id; ³izza_wisnu@yahoo.com

Corresponding author: catcha.ksr@gmail.com

Abstract. *This study aims to examine the interrelationship between mental health and economic well-being in Indonesia based on analysis: (1) the interconnection of the mental health condition and economic well-being in the Indonesian setting, (2) the key mechanisms through which this relationship plays out in Indonesian society, and (3) how understanding the former can illuminate the latter, hence informing more effective policy interventions. The approach used in this research is qualitative-a narrative literature review. Materials subjected to research are articles published from 2015 to 2024 in major electronic databases such as Google Scholar, ScienceDirect, and JSTOR, and official reports published by Indonesian government agencies and international organizations. The results show a vicious circle created by a cumulative causation where poverty generates additional stress and anxiety, which reduces productivity, hence reducing income and creating a self-perpetuating circle. Some of the mechanisms put forward include cognitive load effects, social stigma, impacts on productivity, and how the COVID-19 pandemic has reinforced these dynamics. It identifies the following critical intervention points: full-scale social protection policy; increased mental health infrastructure via digital solutions; and building resilience among those most vulnerable. These findings hint at an integrated approach, where such linked mental health and economic challenges are pursued together through multisectoral interventions.*

Keywords: *Circular and Cumulative Causation; Economic Well-being; Indonesia; Mental Health.*

1. INTRODUCTION

The connection between mental health and economic well-being is an important global issue, especially among developing nations. As stated by the World Health Organization (2024), mental health conditions cost the globe approximately US\$ 1 trillion in lost productivity annually, with depression and anxiety being the two chief causes. Between the first year of the pandemic and the year that followed, the global prevalence of anxiety and depression increased by 25% (World Health Organization, 2022).

The complex dynamic between mental health and economic well-being operates in bidirectional chains and thus requires fine examination. For instance, decades of research have shown that poverty has many trigger structures of mental illness, e.g., loss of income, negative income shocks, and by exposing the person to various environmental stresses (Ridley et al., 2020). Symptoms of depression can directly plunge the individual into poverty (Jin et al., 2020). Mental disorders show a prevalence rate about twice as high in poor and lower middle-class populations (Siracusano & Ribolsi, 2020).

In this digitalized period, it is evidence that economic inequality between the have and have-nots in both developed and developing nations arises with increased severity and arises as a contributing factor in rising mental health concerns. Economic inequality is considered to be a key driver of mental disorders and other negative consequences (Byrne & James, 2020). The inequalities in the distribution of resources make many

people experience emotional and financial stress, which can lead to triggering mental disorders such as depression, anxiety, and even suicide. Symptoms of depression, self-harming behavior, and suicide rise significantly due to economic recessions during and after such recessions (Guerra & Eboime, 2021).

Indonesia has a particular set of challenges in this context. Very recent data shows an increase in suicide cases from 300 cases in 2022 to 866 in the first eight months of 2023, with the most frequent cause being depression, schizophrenia, and other severe mental illnesses (Kementerian Kesehatan RI, 2024). There is a serious shortage of mental health professionals—just 1,053 psychiatrists as of October 2021—one psychiatrist for every 250,000 residents (Kementerian Kesehatan RI, 2021). Added to this are the disparities brought about by negative stigma toward mental health issues (Subu et al., 2021), and a lack of encouragement of treatment from the public (Velasco et al., 2020). Basic Health Research Riskesdas 2018 data from Indonesia showed that the prevalence of emotional mental disorders reached about 9.8% (706,888 people) of the population aged above 15 years. Meanwhile, depression was at about 6.1% (706,689 people). Mental health claims amounted to 730 billion rupiah in 2018 (Kementerian Kesehatan RI, 2019). Most mental health disorders have been shown to decrease a person's productivity on a sustainable basis (Kondapura et al., 2023), while common mental health problems are associated with 20% lower employment, and individuals experiencing these disorders have nearly three times the risk of becoming unemployed (Arends et al., 2022).

While the literature has considered several aspects of both conditions separately, there still exists a big research gap concerning their circular and cumulative relationship, particularly within the Indonesian context. Attempting to fill that existing gap, the study takes the shape of a narrative literature review, using the theoretical framework of CCC to understand the bidirectional influence which the two variables—mental health and economic well-being—continue to experience within Indonesia. The research question, then, seeks answers to the following: 1) How mental health condition and economic well-being are related to each other in a circular and cumulative manner within the Indonesian context. 2) Through what major mechanism does this affect or manifest itself within Indonesian society? 3) How would a better understanding of the linkages between mental health status and economic outcomes for Indonesia make for more effective policy intervention?

This is theoretically based on the theory of Circular and Cumulative Causation by Gunnar Myrdal, where there is a self-reinforcing nature of social and economic processes. One of the analytical frameworks explained how these two factors trigger either negative or positive causation circles that the highly integrated policy approaches have to face both challenges.

2. LITERATURE REVIEW

2.1 Circular and Cumulative Causation Theory

The foundation of the theoretical framework for this research is chiefly lifted from Gunnar Myrdal's CCC theory. This concept was first brought forward by Myrdal in his 1957 work "Economic Theory and Underdeveloped Regions," in which he stated that most social and economic processes hold a pattern of mutual reinforcement, hence giving rise to a cumulative process (Myrdal, 1989). According to Myrdal's concept, a change in one factor would lead to the response of all other variables in a manner that reinforces the change, causing a mutual interactive cumulative process that is self-reinforcing (Galster, 2017; Jackson, 2019).

These three sporadic yet salient principles emphasize a few things: first, that economic and social elements are intricately intertwined. In other words, changing one variable triggers off change in other variables, which, in turn, change the whole dynamics of an economy. Secondly, these changes tend to be self-reinforcing, which, in particular, manifests in virtuous circles or their opposite. This is to say that positive changes do

bring along additional positive changes as well as negative changes, which exacerbate the problem. Lastly, when left unaddressed, the spiral will always deepen over time, and thus, widen any disparity that may already exist. According to Berger (2009), Delaney & Harrington (2009), and O'Hara (2009), the CCC theory is strong enough to address both the dynamic interrelationship between economic and social factors and the self-reinforcing nature of these changes. For one, it states that such sporadic cycles will definitely get worse unless proactively addressed to ensure sustainability in development.

2.2 Social Determinants Theory

Complementing the CCC framework, the Social Determinants Theory, developed by Michael Marmot and others, further gives theoretical support to explaining the link between mental health and economic well-being. This theory postulates that health outcomes, including those of mental health, are much affected by social and economic conditions (Dixon, 2000). The Social Determinants Theory underlines the severities of the impacts of social and economic conditions in bringing on inequalities in health outcomes. These have to be countered with comprehensive policies and community-wide interventions to gain equity in health for overall well-being.

Social determinants of health, also known as SDOH, imply the conditions wherein individuals are born, grown, lived, worked, and aged. They also affect wide-ranging health, functioning, and quality-of-life outcomes and risks. Such determinants include economic stability, access to and quality of education, availability of and quality in healthcare, neighborhood and built environment, and social and community context (Campos, 2022; Wu & Wong, 2022). The SDOH addresses how individual and community health outcomes can be usually affected more by the very social determinants than the direct clinical care (Daniel et al., 2018). According to the theory, it is the social and economic conditions that, if unfair, tend to bring about health inequity, especially among the marginalized (Wu et al., 2022).

3. RESEARCH METHODS

A qualitative approach was implemented with the narrative literature review method in order to describe how, under the framework of Circular and Cumulative Causation theory, mental health and economic well-being are interconnected in Indonesia. The narrative literature review research design was adopted, depicting the holistic understanding of the complex relationship between variables by integrating various perspectives and findings of past research. In this respect, the method allowed the researcher to investigate in detail three major aspects that were the focal point of the research, specifically: 1) how mental health conditions and economic well-being are related in a circular and cumulative manner in the Indonesian context; 2) what the main mechanisms are through which such a relationship could be realized in Indonesian society; and 3) how such an understanding can be used to enhance policy interventions. The literature was collected by carrying out systematic searches in main electronic databases. The consulted ones included Google Scholar, ScienceDirect, and JSTOR, complemented by official reports from Indonesian government agencies, such as the Ministry of Health and Statistics Indonesia, international organizations like WHO and the World Bank, policy documents, and congresses. The search strategy applied used a combination of keywords related to the purpose and scope of the study: "mental health," "economic well-being," "Indonesia," "circular and cumulative causation." This present study covers all articles spanning from 2015 to 2024 so that the conditions can be considered to be pre- and post-pandemic for observing the evolution of the association between mental health and economic well-being.

The literature was organized chronologically and thematically, after which main themes were identified and key findings synthesized across sources. This study has placed particular emphasis on evidence relating to the patterns of circular and

cumulative causation between mental health and economic factors, key mechanisms that may underpin these associations, implications for policy and intervention points, gaps in existing knowledge, and areas for future study.

A narrative literature review is a process that enables this research to collate existing findings, patterns, and trends, besides the gaps within the available literature. In so doing, this also allowed the current research to make some theoretical contributions toward garnering a deep understanding of the relationship dynamics between mental health and economic well-being in Indonesia, besides some practical recommendations toward policy development for more effectively addressing both in an integrated manner.

4. RESULTS AND DISCUSSION

4.1 *The Interaction of Mental Health and Economic Well-Being in Indonesia from Circular and Cumulative Causation Perspective*

The interdependent relation between mental health and economic well-being in Indonesia fits within what Gunnar Myrdal has called the Principle of Circular and Cumulative Causation. Such a perspective postulates that most social and economic processes take a self-reinforcing course, feeding cumulatively on themselves, with significant difficulties in breaking such trends. This might be represented in a self-sustaining circle where there is poverty, breeding stress and anxiety, which reduces productivity, leading to lower incomes, further perpetuating poverty Figure 1.

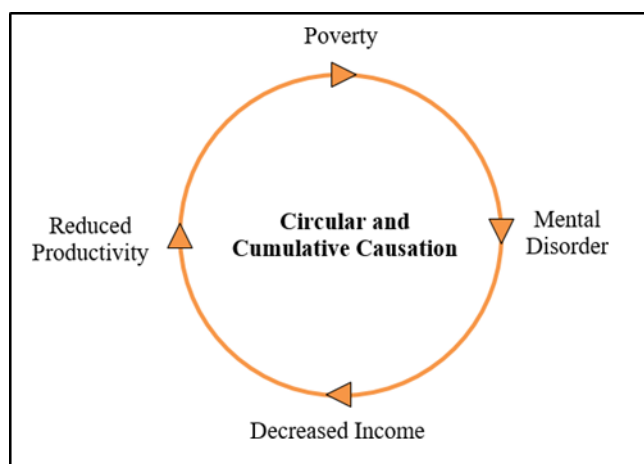


Figure 1. The Interaction of Mental Health and Economic Well-being

This dynamic has become especially evident during and after the COVID-19 pandemic, with increases both in economic disparities and in mental health problems, creating a reinforcing cycle of stress and financial strain (Setyorini et al., 2024). In line with this, it was also found that generally, individuals who lived in poor and low-income conditions in various parts of the world were 1.5-3 times more likely to develop major depression or anxiety disorders compared to persons of higher incomes (Ridley et al., 2020). Particular relevance for Indonesia comes with the fact that there are still huge economic disparities. Thomson et al. (2023) underline this further, saying that at approximately 6%, poverty accounted for a portion of the mental health burden in working-age populations, which caused large economic costs.

This is a big deal in terms of biological mechanisms. Sahi et al. (2020) explain that financial uncertainty could be related to significant differences in mental health through the physiological stress response, especially in terms of cortisol. Cortisol, otherwise known as the stress hormone, is released via the hypothalamic-pituitary-adrenal axis when one feels stressors, including financial uncertainty. These effects were heightened during the pandemic, and financial difficulties were directly related to higher

perceptions of insignificance and overall poor mental health status. This specific effect was observed in family settings in terms of economic pressures on FQOL, although family resilience did dampen some of these unhealthy impacts (Setiawan et al., 2023).

This is combined with increasing rates of depression, anxiety, and stress among a broad array of populations, from adolescents to healthcare workers and the general populace. These major contributors came in the form of social isolation, job loss, and financial issues, as extrapolated from studies by Sarfika et al. (2024) and Syamlan et al. (2022). The situation underlined and increased economic inequalities, particularly in how individuals with a low economic status could not use the resources or seek as much support as others, which caused adversity in their mental health and further deteriorated their well-being.

Moreover, one of the most prominent concerns within this dynamic, as it exists in Indonesia, is the stigma around mental health problems, especially within the lower socioeconomic classes. This further increases the barriers to healthcare, job opportunities, and independent living. Physical restraint, or *pasung*, as practiced and seemingly related to economic constraint and a general lack of mental health literacy, epitomizes a cycle whereby poor mental health gives way to a decline in economic well-being, further solidifying social and systemic impediments to recovery (Hartini et al., 2018). This leads to the entrenchment of further barriers in the already strong and seemingly impossible-to-break pattern of circular and cumulative causation, which will be increasingly impossible to break loose from in the spiral of poverty and mental health problems.

While the general pattern of interaction between mental health and economic well-being is clear, to understand specific mechanisms of how this relationship exists in Indonesian society is very important in view of its particular social and cultural context.

4.2 Key Mechanisms in Indonesian Society

These strategic mechanisms of understanding uncover a set of priority problems that require specific interventions. The next section addresses these problems and elaborates on the appropriate policy actions necessary to interrupt this self-reinforcing cycle of economic hardship and poor mental health.

The consequences of poverty on the development of mental disorders manifest in several important ways in Indonesian society. It is documented that poverty contributes to a situation called cognitive load; this diminishes substantial positive impacts on cognitive functions and decision-making processes. According to Novais E Silva et al. (2018), poverty increases the cost of making cognitive decisions, resultantly enabling cognitive biases, greater risk aversion, and bigger intertemporal discounts. This is also known as a "cognitive tax," wherein the actual mental work required to make decisions under conditions of poverty is much more than usual. This setting appears to be very relevant for Indonesia, where tens of millions of people have to strategize daily how to get basic needs-like food, clothes, and shelter-satisfied, as reflected by Saffana, (2023). The social dimensions of poverty contribute highly to psychological distress, including stigma and marginalization (Moura-Jr. et al., 2019), especially within the structure of Indonesian society, wherein the social status or economic standing reflects one's personal worth and dignity. In Indonesia, it is viewed not as an issue of economics but one of a social problem. Accordingly, many who experience poverty are subjected to stigma and marginalization. This is the kind of social exclusion that could heighten the psychological distress because these people have become devalued and also disconnected from their community (Faeni, 2019).

In addition, mental health is an issue with serious effects on an economic level. In this respect, Michalak & Ashkanasy (2018), found that depression and anxiety at work equate to productivity loss of \$1.15 trillion every year. Similarly, estimates by the World Health Organization (2024), depict the global economy loses US\$1 trillion annually because of depression and anxiety, which result in low levels of productivity. In

Indonesia, the costs of treatment for the mental health disorders are quite high. For instance, it was found in the provincial referral mental health hospital of West Java, the societal cost of treating psychotic disorders was estimated at \$1,085,310.21 annually, with 39% being the indirect costs such as productivity loss (Siregar et al., 2023). This hence means a very high burden on both the healthcare system and the patients.

The relationship between productivity decline and income inequality is complex and multi-factorial. Since 1997, Indonesia has been experiencing a divergence between labour productivity and real wage earnings. While labour productivity is increasing, real wage earnings stagnate or falls, hence creating more income inequality. This is indicative of the global pattern of gains in productivity without proportionate wage increases (Tadjoeddin, 2016). Most of the dynamics relating to income inequality are explained by human capital development. With better education and skill enhancement, there are prospects for gains in labour productivity and a reduction of income inequality. Its impact on inequality is, however, asymmetric-increases in human capital have far greater effects than decreases (Pradana & Sumarsono, 2018). This is further contextualized by the World Bank (2021), as global productivity declines due to the COVID-19 pandemic, which has derailed efforts toward poverty reduction and increased inequality.

4.3 Critical Issue and Interventions for Breaking the Cycle

The vicious circle of mental health and economic well-being is such that it reinforces each other, and hence, it is very tough to come out of it. The added appearance of different contemporary issues enhances the web, which is increasing at an accelerated level, making the prevailing interrelationship even stronger and hence difficult to break the cycle. The first critical issue in Indonesia is the increased prevalence of mental disorders, which has risen by 1-2 times compared to the pre-Covid-19 pandemic period (Kementerian Kesehatan RI, 2022). One in 20 teenagers reported feeling more depressed and anxious, as well as having difficulty concentrating, compared to before the Covid-19 pandemic (Center for Reproductive Health; University of Queensland; Johns Bloomberg Hopkins School of Public Health, 2022). Meanwhile, out of the total working-age population of 203.97 million people, the percentage of those affected by Covid-19 was 12.28% or 29.12 million people, with unemployment rates rising from 5.23% in August 2019 to 7.07% in August 2020.

The second critical issue is job instability, which continues to affect the Indonesian workforce in the post-pandemic period. The formal sector's absorption of workers has a disquieting downward slope for the last 15 years. From 8,551,456 workers who were absorbed during 2014-2019, the number drastically dropped to 2,006,071 workers during 2019-2024. Growing informal work and job insecurity as a result of this increasing tendency of higher unemployment and pressure on the job market result in income instability emanating from informal work and job insecurity, leading to increased cases of stress and anxiety among workers.

Indonesia could address these complex challenges with a few key interventions. First, economic support and social protection policies cushion people from economic shocks and financially assist vulnerable populations, hence mitigating negative impacts on their mental health. Adaptive Social Protection-whereby social policies are integrated with disaster risk reduction and climate change adaptation strategies-potentially mitigates economic impacts associated with shocks and supports mental health through timely and targeted assistance (Gasior et al., 2024).

In addition, Informal Social Protection, involving community-based support and NGO participation, may be employed to supplement Formal Social Protection, allowing flexibility and local specificity. The effectiveness of social protection cannot be further improved without expanding its scope to cover unregistered groups, such as workers in the informal sector, and the so-called "missing middle" population, which is usually missed (Surtiari et al., 2024).

Second, expanding and increasing access to mental health infrastructure. Less than a handful of the population can access adequate mental health services, and the pandemic has further exacerbated the challenge, especially among those who experience social isolation and economic decline due to the pandemic (Setyorini et al., 2024). The mental health infrastructure needs improvement by increasing trained professionals in mental health, adding facilities for mental health, and utilizing digital technology for a comprehensive national digital mental health strategy (Arihta et al., 2022). That way, the gap in services that are being provided will be covered and greater population coverage achieved. Public education campaigns on mental health literacy and awareness may reduce stigma and improve help-seeking behaviors for a supportive environment of mental health care (Ardi & Putra, 2024).

Third, resilience-building programs among vulnerable groups, such as nursing students and people affected by disasters, will reduce the impact of stress and anxiety on mental health (Devi et al., 2021). This will enable individuals to handle the cycle of mental health issues and impoverished conditions through coping skills and psychological stability, hence improving the quality of life. This is also an issue of community-based programs that help build social cohesion and provide support during and after disasters (Burrows, Desai, et al., 2021 and Burrows, Pelupessy, et al., 2021). Public-private partnerships and active community participation can further ensure effectiveness and sustainability of the mental health programs, targeting the most in need with necessary support (Ardi & Putra, 2024).

These recommendations could break such cycles, but their implementation would need continuing commitment from a range of stakeholders in the government and private sectors. Interventions will also need coordination across sectors, performed over time, to fully address both sides of this circular relationship: mental health and economic. Further studies are thus needed that focus on the effectiveness of integrated interventions in determining additional ways to disrupt the circular causality between mental health and economic well-being in Indonesia.

CONCLUSION

The purpose of this paper is to present evidence that, in Indonesia, mental health and economic well-being are inextricably interlinked in a complex nexus of processes of circular and cumulative causation, wherein causation runs in circles, with each factor reinforcing the other. These most manifestly occur through the effects of cognitive load on worsening decision-making under poverty, through social stigma to raise entry barriers to recovery and economic participation, and through direct productivity impacts on income creation-especially during and after the COVID-19 pandemic.

The study reveals that breaking this cycle requires coordinated interventions across multiple sectors. Three critical intervention points emerge as essential: implementing comprehensive social protection policies, expanding mental health infrastructure through digital solutions, and developing resilience-building programs for vulnerable populations. The effectiveness of these interventions depends heavily on their integration and the sustained commitment of both public and private stakeholders.

This research faced several limitations. First, the reliance on secondary data and published literature may not fully capture the rapidly evolving post-pandemic landscape of mental health and economic challenges in Indonesia. Second, the study's focus on national-level analysis may overlook important regional variations in how mental health and economic factors interact across different Indonesian communities.

Future research should focus on conducting longitudinal studies to better understand the temporal dynamics of the relationship between mental health and economic well-being. Additionally, researchers should investigate the effectiveness of integrated intervention programs, particularly those that combine economic support with mental health services. Studies examining regional variations in the relationship between mental health and economic well-being across different Indonesian provinces

would also provide valuable insights for policy implementation.

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