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## Mental Health and Depression in Indonesia: Risk Factors and Service Utilization for Healthy Aging Using SKI 2023 Data

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### ABSTRACT

Mental health conditions, including depression, pose a significant public health challenge in Indonesia, impacting quality of life and healthy aging, particularly among vulnerable populations. This study examines the prevalence of depression and mental health issues, identifies associated risk factors, and evaluates disparities in health service utilization using secondary data from the 2023 Indonesian National Health Survey (SKI 2023). Method: Logistic regression analysis was used to explore associations between mental health outcomes and sociodemographic factors, including age, gender, education, employment, and economic status. Results: The analysis revealed significant geographic and demographic disparities. West Java reported the highest depression prevalence (3.3%) and Bali the lowest (0.3%). Women, unemployed individuals, and those in lower socioeconomic groups exhibited higher prevalence rates. Urban residents had greater access to services compared to rural populations, where stigma and resource limitations were prominent barriers. Discussion: These findings highlight the urgent need for equitable, community-based mental health initiatives that integrate culturally sensitive care, address social determinants, and reduce stigma. Targeted policies and programs are essential to improving mental well-being, enhancing service accessibility, and supporting healthy aging across Indonesia's diverse populations.

**Kata kunci:** Depression, mental health, Indonesia, SKI 2023, health service utilization.

### INTRODUCTION

Mental health is a critical public health issue in Indonesia, with a significant proportion of the population affected by various mental health conditions, including depression (Putra et al., 2021). The prevalence of mental disorders, particularly emotional stress, anxiety, and depression, is estimated to be around 5.7% of the population over the age of 15 years in Jakarta. (Munif et al., 2019) Understanding the risk factors and health service utilization patterns associated with mental health and depression in Indonesia is crucial for developing targeted interventions and improving access to mental health care. Further, this condition has also become a pressing public health issue among adolescents, with a national prevalence of emotional and mental problems reported at 9.4% (Pratiwi & Djuwita, 2022) Including healthy aging and longevity in universal health coverage is crucial for achieving better health outcomes and promoting overall well-being in Indonesia (Aldridge & McChesney, 2018).

Existing research has identified several risk factors that contribute to mental health challenges and depression among the Indonesian population. These include high levels of stress, which can lead to anxiety disorders and depression if left unmanaged. Moreover, factors such as gender, socioeconomic status, and bullying have also been found to be associated with mental health disorders among Indonesian adolescents. (Pratiwi & Djuwita, 2022) Additionally, mental health conditions, including suicidal ideation and suicide attempts, have been reported to be a growing public health concern among Indonesian adolescents, underscoring the need for comprehensive interventions (Ningsih et al., 2024).

The SKI 2023 data provided by the Ministry of Health Indonesia depict valuable insights into the risk factors and health service utilization related to mental health and depression in Indonesia. Several risk factors have been identified that contribute to the prevalence of mental health conditions and depression among the Indonesian population. This study aims to explore the risk factors and health service utilization patterns related to mental health and depression in Indonesia, utilizing the data from the 2023 Survei Kesehatan Indonesia dataset.

## **METHOD**

This study utilized secondary data from the 2023 Indonesian National Health Survey (SKI 2023), a nationally representative dataset providing comprehensive information on health-related factors, including mental health, for individuals aged  $\geq 15$  years. Data from the prevalence of Depression, Risk Factors for Depression, Prevalence of Mental Health Conditions, and Demographic Predictors of Mental Health Problems were analyzed. Logistic regression models were applied to identify predictors of depression and mental health problems, with adjusted prevalence ratios (PR) and 95% confidence intervals calculated for sociodemographic variables, including age, gender, residence, education, employment, and economic status. Statistical analyses were conducted using R Studio to ensure accurate and reproducible results.

## **RESULTS AND DISCUSSION**

### **Prevalence of Mental Health Problems and Depression**

The national prevalence of depression was 1.4% (95% CI: 1.3–1.5%), with significant regional variation. West Java reported the highest depression rate (3.3%), followed by East Kalimantan (2.2%). In contrast, Jambi and Bali reported the lowest rates at 0.3%.

### **Mental Health Problems (MHP)**

The highest prevalence of MHP was observed in West Java (4.4%; 95% CI: 4.0–4.8), followed by Papua Pegunungan (3.0%; 95% CI: 2.0–4.6) and Papua Tengah (2.9%; 95% CI: 1.7–4.8). Provinces with the lowest prevalence included Bali (0.3%; 95% CI: 0.2–0.5) and Lampung (0.7%; 95% CI: 0.5–0.9).

### **Depression**

Depression prevalence followed a similar regional pattern, with West Java reporting the highest rates (3.3%), alongside East Kalimantan (2.2%; 95% CI: 1.7–2.7).

Provinces such as Jambi, Central Kalimantan, and West Sulawesi showed the lowest depression prevalence at 0.3%.

### **Risk factors**

Logistic regression identified key predictors of mental health conditions: unemployment (PR: 2.3), female gender (PR: 1.7), rural residence (PR: 1.6), and age  $\geq 75$  years (PR: 2.1). Lower educational attainment and low income were also significantly associated with higher prevalence.

(Figure 1) The forest plot visualizes adjusted prevalence ratios (PR) and their 95% confidence intervals for significant predictors of mental health conditions:

1. Unemployment is the strongest predictor, with a PR of 2.3, indicating that unemployed individuals are over twice as likely to experience mental health conditions compared to employed individuals.
2. Low income (PR: 1.8) and rural residence (PR: 1.6) are also associated with increased mental health risks, highlighting socioeconomic and geographic inequities.

3. Gender (women: PR: 1.7) and age  $\geq 75$  years (PR: 2.1) further contribute to the disparities, suggesting that women and the elderly face greater mental health challenges.

### **Prevalence of mental health problems by province**

The prevalence of mental health problems varied widely across provinces, with a national average of 2.0% (95% CI: 2.0–2.1%). West Java reported the highest prevalence at 4.4% (95% CI: 4.0–4.8%), followed by Papua Pegunungan (3.0%, 95% CI: 2.0–4.6%) and Papua Tengah (2.9%, 95% CI: 1.7–4.8%). Conversely, Bali (0.3%, 95% CI: 0.2–0.5) and Lampung (0.7%, 95% CI: 0.5–0.9) exhibited the lowest rates. Notably, urban provinces such as DKI Jakarta (2.3%, 95% CI: 1.9–2.9) and resource-constrained provinces like Sulawesi Tengah (2.5%, 95% CI: 2.0–3.0) reported higher-than-average prevalence.

### **Prevalence of mental health problems by demographic characteristics**

#### **1. Age**

The prevalence of mental health conditions varied by age group. The highest prevalence was observed in the  $\geq 75$  years age group (3.1%; 95% CI: 2.7–3.6) and the 15–24 years age group (2.8%; 95% CI: 2.6–3.1). The lowest prevalence was reported in individuals aged 35–44 years (1.5%; 95% CI: 1.3–1.6).

#### **2. Gender**

Women reported a significantly higher prevalence (2.6%; 95% CI: 2.5–2.8) compared to men (1.5%; 95% CI: 1.4–1.6). This suggests that women may be more susceptible to mental health conditions, possibly due to societal and biological factors.

#### **3. Education**

Educational attainment was inversely associated with mental health problems. Individuals with no formal education had the highest prevalence (2.6%; 95% CI: 2.8–3.1), whereas those with higher education degrees (D1/D2/D3/PT) had the lowest prevalence (1.2%; 95% CI: 1.1–1.4).

#### **4. Employment**

Unemployment was associated with the highest prevalence of mental health conditions (2.9%; 95% CI: 2.8–3.1), as was being a student (2.9%; 95% CI: 2.6–3.2). Conversely, individuals employed in the formal sector, such as PNS/TNI/POLRI/BUMN/BUMD, reported the lowest prevalence (0.7%; 95% CI: 0.5–0.9).

#### **5. Residence**

Urban residents demonstrated a higher prevalence (2.4%; 95% CI: 2.2–2.5) than rural residents (1.6%; 95% CI: 1.5–1.8), potentially reflecting the stressors of urban living, such as cost of living, congestion, and work pressures.

#### **6. Economic Status**

Prevalence was inversely related to economic status. The lowest income quintile showed the highest prevalence (2.5%; 95% CI: 2.3–2.7), while the wealthiest quintile reported the lowest prevalence (1.8%; 95% CI: 1.6–1.9).

### **Regional and Demographic Patterns**

A synthesis of the data highlights that provinces with lower economic development and limited access to mental health care, such as Papua Tengah and Papua Pegunungan, experienced a higher prevalence of mental health problems. Similarly, demographic factors such as age (youth and elderly),

lower education levels, unemployment, and lower economic status were strongly associated with an increased prevalence of mental health conditions.

(Figure 2) This bar chart illustrates the prevalence rates of mental health problems across various demographic categories, highlighting key groups affected. The highest prevalence is seen among young adults aged 15–24 (2.8%) and unemployed individuals (2.9%), emphasizing their vulnerability. Gender disparities are evident, with women (2.6%) showing higher prevalence compared to men (1.5%). Economic and educational disparities are also visible, as low-income individuals (2.5%) and those without formal education report higher prevalence compared to their wealthier and more educated counterparts.

### **Key findings**

This study sheds light on the state of mental health in Indonesia, revealing a complex picture of challenges faced by diverse communities across the country. While the national prevalence of depression is 1.4%, some regions, like West Java, experience rates as high as 3.3%, highlighting significant geographic disparities. Provinces such as Bali and Jambi, with depression rates as low as 0.3%, stand in stark contrast, raising questions about potential protective factors or underreporting, such as higher temperatures are leading to increased emergency room visits for mental illness, suicide, and other negative mental health outcomes which can be found in some region.

Our analysis uncovered striking demographic patterns. Women are disproportionately affected by mental health issues, with a prevalence rate of 2.6% compared to 1.5% in men. This disparity underscores the unique societal and biological pressures women face, including caregiving burdens and social expectations. Age also plays a critical role, younger adults (15–24 years) and those aged 75 and older report the highest prevalence of mental health conditions, at 2.8% and 3.1%, respectively. Similar to previous findings, mental health problems were more prevalent amongst adolescents in junior high school and residents in district areas. (Pandia et al., 2021) These findings point to distinct challenges at different life stages, from the pressures of adolescence to the vulnerabilities of aging. However, parents' education levels were associated with their children's mental health (Fakhrunnisak & Patria, 2022).

Economic and social inequities further exacerbate mental health disparities. Unemployed individuals and those in the lowest income quintile are over twice as likely to experience mental health problems compared to their employed and wealthier counterparts. Urban residents, though reporting slightly higher prevalence rates (2.4%), may have better access to services compared to rural populations (1.6%), who face barriers such as stigma, limited resources, and geographic isolation. These findings are more than statistics they represent the lived experiences of individuals navigating mental health challenges in Indonesia. They call for urgent action to address systemic inequities and create a society where mental well-being is accessible to all, regardless of gender, age, or socioeconomic status.

### **Policy implications**

The implications of these findings are multifaceted. Policymakers and public health authorities should focus on addressing the social determinants of mental health, such as poverty, social exclusion, and access to education and employment opportunities, to create a more equitable and supportive environment for individuals to thrive.

At the same time, efforts should be made to enhance the capacity and accessibility of the Indonesian mental health care system, particularly in underserved communities. This may involve expanding the mental health workforce, integrating mental health services into primary care, telehealth

consultation, and implementing community-based interventions to reach individuals who are less likely to seek formal mental health care. (Marastuti et al., 2020) Integrative training is effective in preparing Indonesian community health workers to identify and address mental health care needs. The insights gained from this study have important implications for public health policy and program development in Indonesia. Comprehensive, community-based mental health interventions that address the identified risk factors and promote access to mental health services are crucial to improving the overall mental health and well-being of the Indonesian population (Stratford et al., 2014).

Strengthening the integration of mental health services into the primary healthcare system, providing training and support for healthcare professionals to identify and manage mental health conditions, and implementing school-based mental health programs can help address the mental health needs of the population, especially among vulnerable groups such as adolescents (Ayano, 2016);(Ng et al., 2014).

Addressing social determinants of health, including socioeconomic status, gender inequalities, and access to education, can help prevent and manage mental health conditions in Indonesia. Additionally, the principles of person-centeredness and empowerment are central to a recovery-oriented mental health system. (Shidhaye et al., 2019) Overcoming barriers to accessing mental health services involves several challenges, such as insufficient access to mental healthcare facilities, stigma, lack of social support, delays in receiving proper treatment, and expensive treatment costs, particularly for those without national health insurance. Addressing these issues should be a priority (Fusar-Poli et al., 2020).

Based on the results of this study, the following policy and practice recommendations are proposed. Expanding community-based mental health services and telehealth options could address geographic and economic barriers.

Public health campaigns to reduce the stigma around mental health, coupled with increased funding for mental health services, are crucial. Integrating mental health screening into routine healthcare visits could improve early detection and intervention. Investing in the training and support of primary care providers to recognize and manage mental health conditions is essential for promoting good mental health. Good mental health is defined as a state of well-being that enables individuals to cope with the normal stresses of life and function productively (Meffert et al., 2021).

Interdisciplinary approaches involving mental health professionals, social workers, and community leaders can address the complex social determinants of mental health. Critical priorities are strengthening the mental health workforce and ensuring equitable access to mental health services.

## **CONCLUSION**

This study highlights the profound impact of mental health challenges on individuals and communities across Indonesia. Behind the numbers are real people, women balancing societal expectations, young adults navigating the uncertainty of the future, and elderly individuals facing the challenges of aging. Each statistic represents a life touched by depression or mental health struggles, reminding us of the urgency to act. The findings reveal not only the disparities in mental health prevalence but also the barriers many face in seeking care. Women, the unemployed, and those in low-income groups bear a disproportionate burden, while rural residents often grapple with limited access to services. At the same time, regions like West Java and Papua experience higher prevalence rates, pointing to the need for localized, culturally sensitive interventions.

Addressing these challenges requires a shift in how mental health is approached in Indonesia. Expanding access to mental health services, reducing stigma through public education, and integrating mental health into primary care are critical first steps. Programs that address social determinants like poverty, education, and employment can create environments where mental well-being is not just a privilege but a right for everyone.

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