



Depression among individuals with disabilities in Indonesia: The impact of demographic factors and bullying experience

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Abstract

Depression represents a significant mental health concern among individuals with disabilities, with demographic factors and experiences of bullying often serving to exacerbate this issue. The aims of this study are to investigate the prevalence of depression among disabilities in Indonesia and examines the impact of various variables on depressive conditions. A quantitative research design was employed in this study, which used an online survey to gather data from 139 participants with multiple disabilities, physical, hearing, and visual impairment. The results demonstrated that 38.1% of participants exhibited symptoms of mild depression, 21.6% displayed indications of moderate depression, 20.9% demonstrated symptoms of moderately severe depression, 16.5% reported no depressive symptoms, and 2.9% were affected by severe depression. The regression analysis identified several significant predictors of depression. These included sex ($\beta = -2.6905$, $p = 0.004$), educational level ($\beta = -1.4470$, $p < 0.001$), monthly income ($\beta = 1.1039$, $p = 0.023$), and experience of bullying ($\beta = 2.3073$, $p = 0.015$).

Keywords: depression; disabilities; bullying experience; demographic factors

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Introduction

Depression is a pervasive mental health condition characterized by persistent sadness, a lack of interest or pleasure in daily activities, and various physical and emotional symptoms (American Psychiatric Association, 2022). When combined with a disability, the risk and impact of depression can be substantial. The prevalence of depression among disabled individuals is indeed significantly higher than that of healthy older adults. Studies have shown that the incidence of depression in adults with physical and sensory disabilities is approximately 6.29 per 1000 person-years, which is 3.7-fold higher than the incidence in the general population (Shen et al., 2017).

Psychosocial stressors are significant risk factors for depression in various populations, including young adults and individuals with metabolic syndrome (Fauziyati et al., 2016; Niman, 2023). Factors such as social isolation, stigma, discrimination, and lack of social support contribute significantly to the heightened risk of depression in this population (Strömberg et al., 2011). People with disabilities often experience stress due to limitations in various aspects of life, which can negatively impact their mental health and lead to depressive symptoms (Onalu & Nwafor, 2022). Additionally, the COVID-19 pandemic has been particularly stressful for individuals with disabilities, especially those with high support needs, potentially exacerbating feelings of depression and anxiety (Wang et al., 2022).

Demographic factors also play a role in the mental health outcomes of individuals with disabilities. Higher levels of education have been associated with lower levels of internalized anger and externalized hostility among individuals with disabilities, highlighting the importance of educational attainment in coping with disability-related challenges (Alčiauskaitė & Šinkariova, 2018). Moreover, caregivers of individuals with intellectual disabilities have been found to have a higher prevalence of depression, indicating the broader impact of disability on mental health within familial contexts (Bodke et al., 2018).

Research has consistently shown that individuals with disabilities are at a heightened risk of experiencing bullying, which can have severe social and emotional impacts (Griffin et al., 2019). Children and adolescents with disabilities are three to four times more likely to be bullied compared to their peers without disabilities, making them a highly vulnerable population (Blake et al., 2014). Bullying involvement among students with disabilities has been extensively studied, with various factors such as depression, hostility, and self-esteem being identified as predictors of victimization and bullying experiences (Rose et al., 2016).

The impact of bullying on individuals with disabilities extends beyond the immediate experience, affecting their mental health and well-being. Studies have shown that individuals who report disability-related bullying have higher odds of experiencing depression and struggling with issues related to substance use (Mulvey et al., 2018). Furthermore, the risk of depression in children and adolescents who have been bullied is significantly higher compared to those who have not experienced bullying (Ye et al., 2023). Additionally, individuals with disabilities may be more susceptible to emotional harm due to factors such as having fewer friends and lower self-esteem, which can further exacerbate the risk of depression (Hartley et al., 2017).

Despite the existence of known risk factors, there is a dearth of comprehensive research on depression among individuals with disabilities. In the Indonesian context, where cultural and societal norms may further compound these challenges, it is of the utmost importance to gain insight into the specific factors contributing to depression among individuals with disabilities. This research aims to investigate the prevalence of depression in this population and explore the impact of demographic factors and experiences of bullying on the depression condition.

Method

This study employs a quantitative research design to investigate the association between depression and bullying experiences among individuals with disabilities in Indonesia. The research utilizes an online survey as the primary data collection method.

Participant

The study involved individuals with various types of disabilities living in Indonesia. Participants had to be aged 18 and above and able to understand and respond to the online questionnaire. Participants were recruited through a self-selected sampling technique, where individuals who identified as having a disability and were willing to participate in the study voluntarily completed the survey.

Instrument

The online survey consists of two main components:

1) Depression Measurement.

The Patient Health Questionnaire-9 (PHQ-9) is used to measure depression levels. The PHQ-9 is a widely validated instrument that assesses the frequency of depressive symptoms over the past two weeks. It consists of nine items, each rated on a scale from 0 (not at all) to 3 (nearly every day), providing a total score ranging from 0 to 27.

2) Bullying Experience Checklist.

A custom-designed questionnaire used to assess experiences of bullying, which consists of a comprehensive list of bullying behaviors categorized into four distinct types: verbal, physical, social, and cyberbullying. Each category included specific items describing various forms of bullying, such as insults or threats (verbal), physical harm or intimidation (physical), exclusion or spreading rumors (social), and online harassment or cyberstalking (cyberbullying). Participants were asked to indicate whether they had experienced each type of bullying by responding "Yes" or "No" to each item on the checklist.

Data Analysis

Data analysis was conducted using Jamovi 2.5 (The Jamovi Project, 2024). Descriptive statistics were first computed to summarize the PHQ-9 scores, bullying experience data, and demographic variables. Correlation analysis was then performed to examine the relationships between PHQ-9 scores and bullying experiences, as well as between demographic factors and depression scores. Multiple linear regression analysis was carried out to evaluate how bullying experiences and demographic factors collectively influenced depression levels. The regression model included PHQ-9 scores as the dependent variable and bullying experience scores along with demographic factors as independent variables. Significance testing was applied to assess the statistical significance of correlations and regression coefficients, with effect sizes reported to reflect the strength of these relationships.

Result and Discussion

Result

The study included a total of 139 participants. Of these, the majority were male (n=83, 59.7%) with the largest age group was 21-25 years (n=44, 31.7%). In terms of educational level, the majority had completed high school (SMA/K) (n=66, 46.8%). The marital status showed that a majority were single (n=76, 54.7%). Monthly income predominantly fell within the 0 - 1.5 million

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rupiahs range (n=83, 59.7%). The most common type of disability was physical impairment (n=74, 53.2%). For detailed demographic information, refer to Table 1.

Table 1. Demographic of participants

Demographic Variables	N	Percent	PHQ	
			Mean	SD
Sex				
Male	83	59.7%	9.25	5.54
Female	56	40.3%	6.57	4.34
Age				
21-25	44	31.7%	6.64	4.21
26-30	12	8.6%	7.00	4.26
31-35	12	8.6%	5.33	5.80
36-40	21	15.1%	10.57	5.99
41-45	26	18.7%	11.46	6.13
46-50	24	17.3%	7.33	2.75
Educational Level				
SD	19	13.7%	12.63	6.16
SMP	8	5.8 %	11.00	9.62
SMA/K	66	46.8 %	7.54	4.01
D4	4	2.9 %	12.00	0.00
S1	38	27.3%	7.00	4.13
S2	4	2.9 %	1.00	1.41
Marital Status				
Single	76	54.7%	6.95	5.02
Married	63	45.3%	9.71	5.06
Type of Disability				
Physical impairment	74	53.2 %	8.30	5.51
Hearing impairment	13	9.4 %	8.77	4.66
Multiple disability	4	2.9 %	15.00	0.00
Visual impairment	48	34.5 %	7.33	4.71
Monthly Income				
0 - 1.5 mio	83	59.7%	8.34	5.59
1.6 - 2.5 mio	28	20.1%	8.14	3.87
2.5 - 3.5 mio	4	2.9 %	16.00	0.00
>3.5 mio	24	17.3%	6.50	4.47

The Depression Level of the Disabled

The results of the Patient Health Questionnaire-9 (PHQ-9) for the assessment of depression are presented in Table 2. This table illustrates the distribution of depressive symptomology severity among the study participants. It can be observed that the majority of participants, accounting for 38.1%, experienced mild depression. Following this, 21.6% of the participants were found to have moderate depression. A slightly lower percentage, 20.9%, exhibited moderately severe depression.

In contrast, 16.5% of the participants reported no depression symptoms. Lastly, severe depression was observed in a small proportion of the sample, comprising 2.9%.

Table 2. The Severity of Depression among Individuals with disabilities

Depression Level	N	Percent
None	23	16.5 %
Mild	53	38.1 %
Moderate	30	21.6 %
Moderately severe	29	20.9 %
Severe	4	2.9 %

The levels of depression across different demographic variables are shown in table 1. Males (M=9.25) tend to have higher depression scores than females . The age group 41-45 years has the highest depression score (M=11.46), while the 21-25 years group has the lowest (M=0.29). Among educational levels, those with a D4 (Diploma) have the highest scores (M=12.00), and those with an S2 (Master's Degree) have the lowest (M=1.00). Married individuals have slightly higher depression scores (M=0.42) than single individuals (M=0.32). Individuals with multiple disabilities exhibit the highest depression scores (M=15.00), while those with hearing impairments have the lowest (M=0.39). Regarding income, those earning 2.5 - 3.5 mio have the highest depression scores (M=16.00), while those earning more than 3.5 mio have the lowest (M=6.50).

The Bullying Experience

Out of 139 participants, 91 individuals (65.5%) reported that they had experienced bullying, while 48 individuals (34.5%) indicated that they had not experienced bullying. Among those who had experienced bullying, the breakdown was as follows: 11 individuals (12.1%) reported experiencing physical bullying, 46 individuals (50.5%) reported verbal bullying, and 34 individuals (37.4%) reported social bullying. This distribution highlights that a majority of the participants had encountered bullying, with verbal bullying being the most common type, followed by social and physical bullying.

Factors Associated with Depression among Individuals with disabilities

The regression analysis as shown in table 3 identified sex ($\beta=-2.6905$, $p = 0.004$), educational level ($\beta=-1.4470$, $p < 0.001$), monthly income ($\beta=1.1039$, $p = 0.023$), and experience of bullying ($\beta=2.3073$, $p = 0.015$) as significant predictors of depression among individuals with disabilities, with education and bullying experience being particularly notable.

Table 3. The Regression Analysis

Predictor	β	SE	t	p
Intercept	8.3524	2.977	2.806	0.006
Sex	-2.6909	0.918	-2.932	0.004
Age	0.2010	0.338	0.595	0.553
Educational Level	-1.4332	0.286	-5.008	< .001
Monthly Income	1.1039	0.482	2.293	0.023
Marital Status	2.1760	1.392	1.563	0.121
Types of Disabilities	0.0457	0.381	0.120	0.905

Table 3. The Regression Analysis

Predictor	β	SE	t	p
Bullying Experience	2.3073	0.934	2.471	0.015

Discussion

The objectives of this study are to examine the prevalence of depression and to identify the principal factors contributing to elevated levels of depression among individuals with disabilities. The analysis demonstrated that the majority of individuals with disabilities exhibited symptoms of mild and moderately severe depression. Studies also have shown that the incidence of depression among people with disabilities is significantly higher than in the general population (Bi et al., 2020; Karki et al., 2023). The analysis examined various variables, including sex, age, education, income, marital status, type of disability, and experiences of bullying. The findings revealed that, among these demographic factors, sex, educational level, monthly income, and experiences of bullying were significant predictors of depression in this population.

The present study found that women is associated with lower levels of depression among individuals with disabilities, in contradiction to the prevailing view that women typically report higher levels of depression than men (Albert, 2015; Kuehner, 2017; Shi et al., 2021). This unexpected finding may be influenced by various factors specific to the context of disability. One key factor that contributes to this phenomenon is the societal roles and expectations placed on individuals with disabilities (Lauer & Houtenville, 2018). Women with disabilities might be more likely to receive social support and accommodations, which can buffer the negative impact of their disability on their mental health. In contrast, men with disabilities may face greater stigma and isolation, leading to higher rates of depression. Another factor that may contribute to the gender disparity in depression among individuals with disabilities is the different coping strategies and help-seeking behaviors exhibited by men and women. Women are more likely to engage in self-care, seek professional help, and utilize social support networks (Tifferet, 2020), while men tend to be more hesitant to acknowledge and address their mental health concerns (Erentzen et al., 2018; McKenzie et al., 2018).

Similarly, monthly income presented an unexpected result, indicating that higher income levels are associated with higher depression scores. This finding contrasts with previous studies, which often link lower income to heightened stress and limited access to health and support services (Kamalulil & Panatik, 2021; McMaughan et al., 2020), which can exacerbate mental health issues. However, research indicates that the relationship between income and mental health is U-shaped. This means that while lower incomes are associated with higher depression levels, higher incomes beyond a certain threshold can also lead to increased mental health costs and higher depression levels due to increased work pressure and other stressors (Li et al., 2022). Individuals with disabilities who have higher incomes may still face significant socioeconomic challenges, such as financial strain, discrimination, and social exclusion, which can contribute to higher depression levels. Additionally, the stress of managing higher incomes and the associated responsibilities can also exacerbate mental health issues (Li et al., 2022).

Educational attainment also emerged as a significant predictor of depression, with higher levels of education being associated with lower levels of depression. This finding underscores the protective role of education in mental health. Higher education provides access to psychosocial and cognitive resources that protect against stress and improve mental health (Demange et al., 2024). In addition, education can enhance individuals' ability to develop coping strategies, and which can contribute to improved mental well-being (Lee & Yang, 2022; Rosenkilde et al., 2024; Vahabzadeh et al., 2018). Furthermore, education might foster a greater sense of self-efficacy and

personal achievement, which could buffer against depressive symptoms (Cohen et al, 2020; Redzuan, 2010).

Finally, the experience of bullying has emerged as a notable predictor of depression among individuals with disabilities. Bullying among adults with disabilities is a prevalent issue that significantly impacts their mental health and overall well-being. Research indicates that individuals with disabilities are at a heightened risk of experiencing various forms of bullying, including physical, verbal, and relational bullying (Cook et al., 2016). Studies have shown that disabled adults are two to five times more likely to be bullied compared to nondisabled adults, with individuals with intellectual disabilities facing particularly high risk factors (Roberts & Hamilton, 2010). This vulnerability to bullying can lead to negative social and emotional consequences for individuals with disabilities (Griffin et al., 2019). Moreover, the impact of bullying on individuals with disabilities extends beyond immediate effects, influencing their sense of self and well-being (Chatzitheochari et al., 2016). The combination of disability and bullying victimization has been linked to higher levels of self-reported psychosomatic complaints among adolescents (Bjereld et al., 2022).

Conclusion

The findings of the study indicate that depressive symptoms are prevalent among the participants, with mild and moderate depression being the most common. Among the demographic factors, sex, educational level, monthly income, and experiences of bullying were identified as significant predictors of depression in this population. Individuals who are male, belong to older age groups, have lower educational levels, are married, have multiple disabilities and higher income are more likely to exhibit higher depression scores. The findings suggest that mental health interventions should prioritize males, married individuals, those with lower education, multiple disabilities, higher income, and address bullying, while ensuring accessible mental health resources across socioeconomic levels to reduce depression prevalence.

Suggestion

Given the limited sample size of the current study, further research should aim to include a larger and more diverse sample to enhance the generalizability of the findings. Additionally, incorporating qualitative methods such as in-depth interviews or focus groups will facilitate a more nuanced understanding of how demographic factors dynamically influence depression.

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