



FACTORS ASSOCIATED WITH DEPRESSION AND ANXIETY IN YOUNG ADULTS IN METROPOLITAN CITY

Dian Restu Asih^a; Andi Nurhafidzah Hidayah Askin^b; Hoirun Nisa^{c*}

^{a,b,c} Faculty of Health Sciences, Syarif Hidayatullah State Islamic University Jakarta ;
East Ciputat ; South Tangerang and 15412; Indonesia

Abstract

Depression is estimated to be experienced by 12 million young adults. In 2021, the prevalence of depression among the people was estimated to be about 20% due to the Covid-19 pandemic. The use of social media can be a trigger for depression and anxiety, especially among young people who are very closely related to social media. In addition, other factors can contribute to depression and anxiety, such as working status, age, married status, and gender. Aim of study is to find factors that influence depression and anxiety in young adults. This study used a quantitative analytic observational approach with a cross-sectional which was carried out in September-October 2022. It involved 285 young adult respondents aged 18-25 years who had lived at least 1 year in a metropolitan area (Jakarta, Bogor, Depok, Tangerang, Bekasi). This study showed that depression (66.4%) and anxiety (73.3%) are quite high in young adults. Working status is significantly associated with depression ($p=0.0001$) and anxiety ($p=0.0001$). Similarly, duration of social media use is significantly associated with depression ($p<0.001$) and anxiety ($p=0.026$). However, gender, age, and marital status are not associated with depression and anxiety.

Keywords: *Anxiety; Depression; Duration of Social Media Use; Work Status*

1. Introduction

In 2020, a 25% increase was recorded in depression globally, and around 280 million world population experienced depression in 2021 (WHO, 2021). In 2018, around 19 million young adults experienced mental-emotional disorders, including depression and anxiety (Kemenkes, 2018).

Depression was estimated to be experienced by 12 million young adults (Kemenkes, 2018). Report by Indonesian Basic Health Research in 2018 verified 6.2% depression prevalence among young adults. This exceeded the average prevalence of depression among age groups nationally (6.1%) (Kemenkes, 2018). Besides,

urban areas were confirmed to show higher depression prevalence (6.3%) compared to rural areas (5.8%) (Kemenkes, 2018).

In 2021, the depression prevalence estimate among these people tripled to about 20% due to the Covid-19 pandemic (Kemenkes, 2021). Research on 2364 respondents by the Association of Indonesian Psychiatrists showed 72.9% of them had depression, in addition to 71.7% of them also having anxiety disorders (PDSKJI, 2022). Furthermore, some studies found high anxiety prevalence among young adults, with low, medium, and high levels of anxiety being 2.1%, 43.9%, and 54%, respectively (Fitria & Ilfdil, 2020). Depression and anxiety can lead to suicidal thoughts in the sufferers (Kemenkes, 2021).

One triggering factor for both depression and anxiety is the use of social media. Social

*) Corresponding Author (Hoirun Nisa)
E-mail: hoirun.nisa@uinjkt.ac.id

media platforms were considered to harm the psychological health of their users (Karim et al., 2020). Excessive use of social media harms physical and psychological health (Viner et al., 2019). Research in China showed a high prevalence of mental health problems, such as depression and anxiety, was positively associated with the frequent use of social media during the COVID-19 outbreak (Gao et al., 2020).

Research combining depression, anxiety, and PTSD symptoms during Covid-19 explained that the causative factor was unhealthy habits usually shared by problematic co-workers and teenagers. By going to work and school, they could socialize with friends not only from the 'unhealthy' flocks. However, during COVID-19 maintaining social distance and isolation were required which, for adolescents under 25 years of age, caused such an amount of loneliness that exacerbated the situation and caused depression (Liu, et al., 2020).

Social media exposure has been associated with an increase in depression. While some contents on social media are capable of triggering depression (Akil, et al., 2022). Social media impacts addiction which is considered to worsen depression (Shensa et al., 2017). Social media has also been reported to inflict anxiety on young people (Lakasing & Mirza, 2020).

The Indonesian Ministry of Communication and Information documented a huge social media exposure among the public in 2017. It was reported that 92.82% of the public were active consumers of social media, leaving only 7.18% who were not. Young adults were identified as the most users of social media. By that year, 95.96% of young adults were noted to have used social media. In terms of region, the percentage of social media use in urban areas is higher (94.12%) than that in rural areas (Kominfo, 2017).

Arguably, mental health is not only influenced by a single factor. There are other considerations such as age, social status, marital status, and even gender (Khairunisa, et al., 2019). Therefore, this study was aimed at investigating factors associated with depression and anxiety among young adults in several metropolitan areas (Jakarta, Bogor, Depok, Tangerang, and Bekasi).

2. Method

This study used quantitative analytic observation with a cross-sectional design. It was carried out in September-October 2022, involving 285 young adult respondents aged 18-25 years who had lived at least 1 year in a metropolitan city (Jakarta, Bogor, Depok, Tangerang, Bekasi). Participants who had been diagnosed with depression and anxiety were excluded from this study. The sample calculation was carried out by considering a 95% confidence level (95% CI), and 5% alpha and 80% beta for the level of accuracy. Here accidental sampling technique was used. This study received ethical approval (UN.01/F.10/KP.01.1/KE.SP/07.08.021/2022) by the Health Research Ethics Commission, Faculty of Health Sciences, UIN Syarif Hidayatullah Jakarta and received informed consent from respondents.

The data collected in this study were respondents' demography (age, gender, working status, and married status), levels of depression and anxiety, and social media use. Data collection was carried out using the Indonesian version of the DASS-42 questionnaire which had been tested for validity and reliability using the Cronbach alpha formula and was reliable ($\alpha=0.864$) and valid. Data collection was carried out online using Google Forms via social media of Instagram, Twitter, and WhatsApp. The categories of depression and anxiety were made based on the DASS 42 questionnaire guidelines. A cutoff point score of 9 was applied to define the categories of depression. The respondents having a total score ≤ 9 were categorized as not depressed and >9 depressed. Meanwhile, a cutoff point score of 7 was used in terms of anxiety. This means the respondents having a total score of ≤ 7 were categorized as not having anxiety and >7 having anxiety.

The univariate and bivariate analyses were applied with statistical software to the data collected. While the univariate analysis looked into the frequencies of the dependent and independent variables, the bivariate investigated the relationship between these variables using the Chi-square test with a significance p -value <0.05 .

3. Result and Discussion

Table 1 displays the univariate analysis of the variables collected in this study.

Table 1. Characteristics of Respondents, n= 289

Characteristics	f	%
Age (year)	20.43±1.88	
Depression Status		
Yes	192	66.4
No	97	33.6
Anxiety Status		
Yes	212	73.3
No	77	26.7
Gender		
Male	42	14.5
Female	247	85.5
Working Status		
Yes	60	20.8
No	229	79.2
Married Status		
Yes	13	4.5
No	276	95.5

Table 1 shows these respondents are 20.43 years old on average and the majority (85.5%) were female. Most of the respondents did not work (79.2%) and were unmarried (95.5%).

Table 2. Bivariate Analysis of Depression

Characteristics	Depression				p-value
	Yes		No		
	n	%	n	%	
Age	20.34±1.92		20.59±1.77		0.288
Gender					
Male	33	11.4	16	5.5	1.000
Female	159	55.0	81	28.0	
Working Status					
Yes	56	19.4	1	0.3	0.001*
No	136	47.1	96	33.2	
Married Status					
Yes	9	3.1	4	1.4	0.827
No	183	63.3	93	32.2	
Duration of Social Media Usage (Hours)					
>6	132	45.7	36	12.5	<0.001*
1-6	60	20.8	61	21.1	

This study showed that working status had a statistical relationship with depression ($p=0.0001$) and anxiety ($p=0.0001$). Jobless individuals tend to experience phases of depression and anxiety. A study in 12 states in the U.S. shows depression is experienced by unemployed rather than rookies among young adults. This involves perceived social concerns about their unemployment. In young adults, unemployment lowers the quality of social status and rises the tendency to useless perceptions, while impecuniosity increases their depression. In addition, perceptions of

unemployment hinder the transitional period to develop towards true adulthood, due to decreased social contact (McGee & Thompson, 2015). In other studies, work may be a trigger for poor mental health. However, the mental health of the unemployed can stay unimproved, as they lost confidence in social relationships. Individuals who do not work generally tend to have a low level of welfare, especially among those over 20 years. This is considered a trigger for depression and anxiety (Khairunisa, et al., 2019).

Table 3. Bivariate Analysis of Anxiety

Characteristics	Anxiety				p-value
	Yes		No		
	n	%	n	%	
Age	20.32±1.86		20.72±1.90		0.108
Gender					
Male	40	13.8	9	3.1	0.207
Female	172	59.5	68	23.5	
Working Status					
Yes	52	18.0	5	1.7	0.001*
No	160	55.4	72	24.9	
Married Status					
Yes	10	3.5	3	1.0%	0.766
No	202	69.9	74	25.6%	
Duration of Social Media Use (Hours)					
>6	132	45.7%	36	12.5%	0.026*
1-6	80	27.7%	41	14.2%	

Social-media-use duration has a statistical relationship with depression ($p < 0.001$) and anxiety ($p = 0.026$). These results are in line with previous research that showed a statistically significant relationship between social-media-use intensity and depression. The positive result of the correlation test gave a positive result. This means that perceived depression goes in unison with social-media-use intensity (Handikasari, et al., 2018). Social media among young people generally becomes a competition in getting social acknowledgment, symbolized by the "likes" icon. This indirectly worsens its unhealthy effects on depression and anxiety among young adults. A study also states that excessive use of social media degenerates physical and psychological health, by reducing the duration of exercise and sleep (Lakasing & Mirza, 2020).

However, the age variable has no statistically significant relationship to depression ($p = 0.288$) and anxiety ($p = 0.108$). This finding is similar to previous research which found no statistically significant difference between age and depression (Turgunova et al., 2017). A Norwegian multivariate study with a larger population was able to find differences between age and depression, only after controlling for several sociodemographic variables. The shortcoming of smaller sample studies without control variables is that they are incapable of finding a significant relationship between age and depression (Stordal, Mykletun, & Dahl, 2003). This might have been

the reason for the inconsistent relationships between age and anxiety in some studies. For example, an American study showed no significant relationship between age and anxiety. Here no significant differences were found between somatic and affective symptoms related to anxieties experienced in different age groups. However, the older groups have more somatic symptoms than the younger (Brenes, 2006).

From a gender perspective, no statistically significant relationship was found between gender and depression ($p = 1.000$) nor anxiety ($p = 0.207$). This is in line with previous research that found no significant relationship between gender and depression in adolescents (Dewi, Relaksana, & Siregar, 2021). Researchers argue that depression between men and women is almost equal nowadays. As gender equality has been provided by the Law, men, and women are having equal access to education, employment, and other productivities. Thus, the stressors experienced by men and women are almost equal and cause no visible variations in depression and anxiety between men and women (Ovseiko, et al., 2017).

Meanwhile, this study found no statistical relationship between marital status and depression ($p = 0.827$) and anxiety ($p = 0.766$). These results with marital perspective are similar to previous studies on depression (Dewi et al., 2021), and to English research on anxiety (Smith et al., 2020). A Canadian study found that the

relationship between marital status and depression was not directly related. The odds ratio for depression in the single group shows a steady increase with age as compared to the married group. Meanwhile, the odds ratio for depression decreased with age for the widowed group alone. The clinical significance of these findings is that susceptibility to develop depression is not solely related to marital status, but requires modifications in age and sex (Bulloch et al., 2017).

Nevertheless, our study is limited by the absence of sociodemographic variable control and measurements of other relevant factors such as past experiences of violence and bullying.

4. Conclusion and Suggestion

In our study, depression (66.4%) and anxiety (73.3%) were quite high in young adults. There was a statistically significant relationship between working status and depression ($p=0.0001$) and anxiety ($p=0.0001$). In addition, there was a statistically significant relationship between the duration of social media use and depression ($p<0.001$), and anxiety ($p=0.026$). However, there was no statistically significant relationship between gender, age, marital status, and depression and anxiety. Future research is expected to use additional questionnaires to assess in more detail the intensity of using social media for various purposes. Sociodemographic variables controlling and assessing past experiences relevant to depression and anxiety need to be considered.

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