



The Role of Social Support in Pandemic-Related Stress Among University Students

Liliyana Sari^{1*}, Fathiyatul Khaira²

¹Study Program of Psychology, Faculty of Medicine, Universitas Andalas, Padang, Indonesia

²Department of Nutritional Science, Faculty of Medicine, Universitas Andalas, Padang, Indonesia

*Corresponding author, e-mail: liliyanasari@med.unand.ac.id

Abstract

The COVID-19 pandemic lockdown has negatively impacted various aspects of university students' lives which often leads to higher levels of stress. The current research aims to investigate the role of social support in pandemic-related stress among this population. A total of 121 university students in West Sumatra was recruited through convenience sampling to complete the Multidimensional Scale of Perceived Social Support and Pandemic-Related Perceived Stress Scale. The results showed that perceived social support had a significant role in reducing pandemic-related stress by 10.8% in which perceived support from friends was a better predictor than other sources of support. In addition, this study reported a significant difference in pandemic-related stress based on the income of parents where students from lower-income families had a higher prevalence of stress. The findings of this study propose that providing social support particularly from peers would hinder the perceived stress level of university students during the COVID-19 pandemic.

Keywords: social support, pandemic-related stress, university students

How to Cite: Sari, L., & Khaira, F. (2021). The Role of Social Support in Pandemic-Related Stress among University Students. *International Journal of Research in Counseling and Education*, 5 (2): pp. 135-142, DOI: <https://doi.org/10.24036/00444za0002>



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Introduction

The COVID-19 pandemic has drastically changed all aspects of people's lives worldwide, such as health, economic, social, and educational sectors. One of the global preventive measures taken to control the spread of the COVID-19 virus is to reduce people's mobility by closing public places, including schools and universities. The sudden shift from a traditional face-to-face education system to a full distance or online learning has the potential to impact the academic experience and psychological well-being of students from all levels of education, especially those in higher education.

University students who are transitioning from teenage life to early adulthood will deal with new challenges and adjustments such as having new social roles and increased autonomy from parents, reaching sexual maturity, encountering new environment, also adapting to a new educational system. Compared to childhood, this stage of life is generally considered a stressful and critical developmental period. Emerging adults are known to have a higher risk of developing mental health problems than other stages of life, which include depression, anxiety, and psychological stress (Auerbach et al., 2019). The term of psychological stress refers to subjective assessments from individuals towards external demands or life events (Lazarus & Folkman, 1984; Aslan et al., 2020).

Past health emergencies have revealed the psychological impacts of social distancing measures from being lonely to feeling depression (Huremović, 2019). The occurrence of the COVID-19 pandemic in the past two years has also resulted in adverse mental health concerns reported by previous studies, particularly for this vulnerable population (Li et al., 2021; Torales et al., 2020). This happens because the outbreak has added new stressors and pressure which include restricted physical and social activities, sudden changes in lifestyle, fear of infection, and loss of relatives or friends, as well as a distance learning policy (Son et al., 2021). A survey in the UK showed that young adults suffered from worse mental health conditions, such as more emotional problems, panic attacks, sleep problems, and anxiety than students at a lower level of education (Thomas, 2020). Several studies also reported a considerable increase in the level of stress and anxiety experienced by

university students during the pandemic in different countries (Aslan et al., 2020; Cao et al., 2020; Fauziyah et al., 2021; Son et al., 2021). These findings indicate that perceived stress is a prominent psychological impact from the pandemic in this population.

One of the protective factors after the exposure to stressful experiences is the presence of social support that may be essential for emerging adulthood. Perceived social support is defined as how individuals perceive any support from other individuals, groups, or larger communities (Cooke et al., 1988). These supportive resources are exceptionally important because of their impact on an individual's ability to cope with crises in life (Wang, 2004). Prior research indicated that individuals coping with stressors and receiving supports from family, peers, and romantic partners were psychologically and physically healthier than those with fewer social supports (Cohen et al., 2000).

The importance of social support to physical and mental health during the COVID-19 pandemic has been well documented in past studies (Bauer et al., 2020; Li et al., 2021; Grey et al., 2020). Effective social support can act as a buffer to reduce the amount of stress experienced by individuals who deal with threatening or challenging situations (Cohen & Wills, 1985). The perception that other people would provide necessary support during times of need can help to reevaluate stressful situations and reduce the intensity of negative thoughts (Ozmete & Pak, 2020).

Furthermore, having social support is believed to improve the resources within an individual (e.g. self-esteem, self-efficacy) to cope with stressful events which would be beneficial for the psychological well-being and coping capacities (Hefner & Eisenberg, 2009). A study by Ioannou et al. (2019) found that self-esteem significantly mediated the relationship between perceived social support and depressive symptoms in young adults. The study showed that the availability of adequate social support improved psychological health because it impacted the self-worth, sense of security, and social belonging of an individual.

However, some findings also suggested that high perceived social support might not always promote mental health, but it might lead to an increase in psychological distress (Seidman et al., 2006). For some individuals, receiving greater levels of support might be unhelpful because it increased feelings of indebtedness and activated the perception that they were not capable to take care of themselves. Thus, the availability of social support may result in different responses depending on the nature and motive of the supports. Although it might reduce negative consequences of stressors for some people, higher support availability could also increase psychological distress in others as they might feel less competent to handle their problems alone (Gleason et al., 2008).

These contradictory findings indicate a need to investigate further the relationship between social support and perceived stress. Although a growing body of studies has examined perceived stress among college students, to the best of our knowledge, less attention was given to assessing general pandemic-related stress in Indonesia as existing literature mostly focused on academic stress as a psychological consequence of distance learning (e.g. Octasya & Munawaroh, 2021). Therefore, it is important to assess perceived stress in general to understand the impact of the pandemic on college students. The objectives of the current study were to investigate the role of social support in pandemic-related stress and determine which support contributed the most to pandemic-related stress among university students in West Sumatra. West Sumatra is one of the provinces in Indonesia that has been highly affected by the COVID-19 pandemic and has to reimplement the Community Activities Restrictions Enforcement (PPKM) Level 4.

Method

The present study used a quantitative approach. Data from questionnaires were collected from August to September 2021 distributed through Google Forms. A total of 121 university students (74.4% female) currently studying in West Sumatra, Indonesia was recruited through convenience sampling. All respondents have signed an online informed consent before participating in the study. Prior to the data collection, the research has been approved by the Research Ethics Committee from the Faculty of Medicine at Universitas Andalas with No. No. 432/UN.16.2/KEP-FK/2021.

Two Likert measures used in the study have been adapted and tested before the data collection to assess the reliability of the scales. First, the Pandemic-Related Perceived Stress consisting of 10 items (Campo-Arias et al., 2020) measured the level of stress experienced by individuals during the pandemic. Responses were ranging from Never (0) to Always (4). A higher score on this scale indicated a higher level of pandemic-related stress. An example of the item was "I have felt that the difficulties are increasing in these days of the pandemic, and I feel unable to overcome them". The scale had a reliability of Cronbach Alpha of .805.

Second, social support was measured by a 12-item Multidimensional Scale of Perceived Social Support adapted from Zimet et al. (1988). This scale consisted of three subscales that measured the perceived level of social support available from three specific sources such as family, friends, and significant others during the pandemic. Responses were ranging from Strongly Disagree (1) to Strongly Agree (7). A higher score on this

scale indicated a higher perceived social support. An example of the item was “I get the emotional help and support I need from my family”. Each of the Family, Friends and Significant Others subscales showed good reliability which was .914, .912, and .934 respectively. The overall scale yielded a reliability of 0.923 which showed good internal consistency.

In addition to the two measures, demographic information was also asked including age, gender, domicile, and income of parents. Four questions related to the exposure to COVID-19 were also asked with two possible responses, such as “yes” or “no”. A sample question was “I have been infected with COVID”. Data analyses were carried out by using the SPSS software version 23. First, descriptive statistics were reported on demographic characteristics, social support, and pandemic-related perceived stress. Second, the hypothesis was tested by using linear regression to examine the role of social support in predicting perceived pandemic-related stress among respondents. Third, demographic data of respondents were also analyzed to see whether there were any significant differences in terms of perceived stress by using one-way ANOVA

Results

Demographic Characteristics of Participants

The samples consisted of 121 university students in West Sumatra ranging from 18 to 23 years old ($M = 19.85$). The samples were from the first year to the fourth year of study. The majority of respondents were currently living with their parents (78.5%) compared to living alone or by themselves (21.5%). Nearly half respondents' parents had an average income of between IDR 2,000,000 and IDR 5,000,000 (46.3%). Table 1 depicts the exposure or experience toward COVID-19 among the respondents.

Table 1. Exposure to COVID-19 among Respondents (n = 121)

Characteristics	n	Percentage (%)
Searching for COVID information		
Yes	116	95.9
No	5	4.1
Have been infected with COVID		
Yes	33	27.3
No	88	72.7
Relatives were infected with COVID		
Yes	82	67.8
No	39	32.2
Relatives died due to COVID		
Yes	19	15.7
No	102	84.3

According to Table 1, the majority of respondents reported to search actively for information about COVID-19 during the pandemic (95.9%), while around 27.3% had an experience of COVID-19 infection. Approximately 67.8% of relatives from respondents were infected with COVID-19, whereas most respondents did not have an experience of death from relatives due to COVID-19 (84.3%).

Correlation and Regression Analysis.

The correlation between variables in the study was examined by using Pearson Product Moment which can be seen in Table 2. In this analysis, the correlation of social support from three different sources with perceived stress was examined as well

Table 2. Results of Correlation between Social Support and Pandemic-Related Stress

Variables	M	SD	1	2	3	4	5
Perceived stress	17.94	5.33	1				
Social support (total)	63.48	13.39	-.329**	1			
Support from family	23.59	4.85	-.272**	.795**	1		
Support from friends	20.24	5.26	-.312**	.803**	.483**	1	
Support from significant others	19.65	6.58	-.236**	.859**	.521**	.524**	1

** correlation is significant at the 0.01 level; M = Mean; SD = Standard Deviation

From Table 2, it can be seen that there was a significant negative correlation between pandemic-related stress and social support among respondents ($r = -.329, p = .01$). This means that the higher the social support perceived by an individual, the lower the level of stress experienced by that person. Nevertheless, this correlation was considered weak because the R-value was in the range of .30 to .50. The table also depicts the correlation between each source of support with perceived stress in which a higher correlation was found in support from friends ($r = -.312, p = .01$).

As shown in Table 3, the linear regression analysis was performed to test the research hypothesis. In addition, a regression analysis was also conducted to determine a better predictor of pandemic-related stress among the three sources by analyzing each support separately.

Table 3. Results of Regression Analysis towards Pandemic-Related Stress

Variables	R ²	B	SE	β	p
Social support	.108	-.122	.032	-.329	.000
Support from family	.074	-.275	.089	-.272	.003
Support from friends	.097	-.304	.085	-.312	.001
Support from significant others	.056	-.187	.071	-.236	.009

Note: B = unstandardized regression coefficient; SE = standard error of the coefficient; β = standardized coefficient

According to the results, social support significantly predicted pandemic-related perceived stress ($F(1, 119) = 14.474, p < .001$) with an R² value of .108. This means that 10.8% of the variance in perceived stress can be explained by social support. In other words, social support contributes negatively to pandemic-related stress among university students. According to each R² value of three sources of social support, it can be seen that support from friends contributed the highest in the variance of perceived stress which was 9.7% ($\beta = -.312, p = .001$).

Differences in Perceived Pandemic-Related Stress

Based on the categorization of perceived stress into low, moderate, and high, 58.7% of respondents in the study experienced a low level of pandemic-related stress, whereas 23.1% was reported to have a high level of perceived stress during the pandemic. Moreover, differences in pandemic-related stress were also analyzed based on demographics by using One-way ANOVA. The results can be seen in Table 4.

Table 4: Results of One-way ANOVA

	Perceived Stress	n	M	SD	p
Gender	Male	31	18.74	5.67	.334
	Female	90	17.67	5.21	
Domicile	Living with parents	95	17.67	5.27	.291
	Living alone	26	18.92	5.53	
Income of Parents (Rupiah)	< 2,000,000	28	19.39	6.14	.038*
	2,000,000 – 5,000,000	56	18.38	5.44	
	> 5,000,000	37	16.19	3.99	
Searching for COVID information	Yes	116	17.89	5.34	.649
	No	5	19.00	5.61	
Have been infected with COVID	Yes	33	19.18	5.19	.115
	No	88	17.46	5.29	
Relatives were infected with COVID	Yes	82	18.51	4.95	.083
	No	39	16.72	5.94	
Relatives died due to COVID	Yes	19	18.58	5.43	.567
	No	102	17.81	5.33	

Note: * significant at the 0.05 level

Discussion

The primary goal of the study was to examine the role of social support in pandemic-related stress among university students in West Sumatra, Indonesia. As expected, we found a significant negative correlation between social support and pandemic-related stress. This result implied that higher availability of social support was associated with a lower level of pandemic-related stress among respondents. This corresponds with a previous study that reported undergraduate students with lower social support were more likely to have a higher level of stress symptoms during pandemics (Guo et al., 2021).

In addition, the regression analysis also showed that social support contributed by 10.8% in reducing pandemic-related stress. This is similar to a previous study conducted in Turkey that social support explained 11% of the total variance in perceived stress (Özer et al., 2021). These findings indicated that the increase in the perception of social support availability would decrease their perceived stress level during the pandemic. Forming and maintaining secure relationships with other people is a basic human need because this strong connection could provide necessary support in times of distress or tension (Baumeister & Leary, 1995). Social support is a significant psychosocial coping resource that can reduce or manage the detrimental effects of stress, particularly during strict social distancing times. When students are under pressure or feeling threatened, a stable social network provides positive resources and experiences to help to relieve stress or negative feelings and improves their self-esteem and adaptation to difficult situations (Grubic et al., 2020).

This study also found that peer support had a slightly better contribution in perceiving life events as stressful during the pandemic than other sources. In contrast to this finding, existing literature reported that support from family members was a better predictor of perceived stress in young adults in Jordan (Hamdan-Mansour & Dawani, 2008). A possible explanation for the contradictory finding is that although both family and intimate friends are generally considered as the strong ties for late adolescents, a social connection built with peers or same-aged individuals are even more valuable when entering universities especially for those who have to live far away from families or relatives. For this group, peers or college friends might be the most dependable members of their social networks during transition period.

Other than that, support from friends is particularly necessary for university students because they have to establish new interpersonal relationships and adjust to new academic environments, so they would primarily seek support from their peers when encountering daily stressors. Although social distancing measures have restricted physical and social activities with peers which lead to an increase in the feelings of isolation, the existence of the Internet and social media has played a key role in maintaining adequate support for students and reduce feelings of loneliness during the quarantine (Burns et al., 2020; Thomas, 2020).

In this study, more than half of students reported a low level of pandemic-related stress. This might happen either because the data were collected after students dealt with one and a half years of a pandemic or because they have perceived a sufficient support system to maintain their stress level throughout the pandemic. This can be seen from 63.5% of respondents who reported having high social support. Moreover, most respondents (78.5%) live with their parents during the outbreak which might effectively alleviate the stress of these respondents. This is proven from a higher mean in parental supports than other sources ($M = 23.59$).

Interestingly, further analysis also indicated that there was a significant difference in perceived stress based on the income of parents where students from lower-income families reported to have a higher prevalence of stress than the moderate and high-income classes. In more detail, teenagers and adults from lower socioeconomic status (e.g. household income) were associated with an increased risk of poor mental health, including depression and stress (Agberotimi et al., 2020; Salami & Walker, 2013; Wang et al., 2010). This might happen because individuals from low socio-economic classes were affected the most by the lockdown and potential economic crisis throughout the COVID-19 pandemic.

However, there are some potential limitations in the present study. First, the size of the samples was relatively small as it was an initial study to explore stress and social support conditions of students studying in West Sumatra during the COVID-19 pandemic. Further research involving a larger sample size would provide a better generalization to the population. Second, as this study used a cross-sectional design, a longitudinal method would offer more in-depth results by following the conditions of students throughout the pandemic. Moreover, data was collected using an online survey due to the pandemic situation which may lead to a selection bias.

Despite the limitations, this survey was conducted when Indonesia was at the peak of the COVID-19 pandemic with the government reimplemented the Community Activities Restrictions Enforcement (PPKM) Level 4 that had previously been relaxed. Taking into account the current results, further studies can identify

the types of assistance needed for students and explore other psychological factors that might influence pandemic-related perceived stress by using a larger sample size. As the COVID-19 pandemic has brought tremendous disruption to social life, academic institutions must provide easier access to support services for their students through digital platforms, such as online counseling or peer group support

Conclusion

Based on the analysis results, this research presented the importance of social support in reducing perceived pandemic-related stress among university students. The results also showed that support from friends was a stronger predictor of perceived stress than support from family or significant others. In other words, receiving social support, particularly from friends is proven to be an alternative to attenuate perceived stress during the pandemic. Nevertheless, future research could identify alternate sources of support and types of supports that are mostly needed for students and explore other psychological factors that might contribute to lower the pandemic-related stress among this vulnerable group in a larger sample size

Acknowledgment

This research was part of the Research Grant Scheme from the Faculty of Medicine, Universitas Andalas with No. 18/UN.16.02/DP/PT.01.03/2021

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