The Correlation of Perceived Social Support with Suicidal Ideation through Loneliness as a Mediator in University Students

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Abstract. On an annual basis, the rate of suicide cases among university students have been observed to experience a significant increase. A significant reason observed to be predominantly responsible for suicidal incidents is loneliness, and perceived social support is an effort renowned to reduce these feelings among university students. Therefore, this study aimed to thoroughly analyze the relationship between perceived social support and suicidal ideation in university students, with loneliness serving as the mediating variable. In order to achieve the stated objective, 395 respondents aged 18-24, who were engaged in a dating relationship or have a best friend, were selected using a purposive sampling technique. Accordingly, three scales were used in the analysis namely the suicidal ideation, the perceived social support, and the loneliness scales. The obtained results showed that a direct relationship exist between perceived social support and suicidal ideation. It is also important to state that the mediation effect through loneliness was found to be greater than the direct effect (-.4676 > -.225), indicating partial mediation. Based on the observations, it was suggested that enhancing perceived social support while reducing loneliness can play an important role in preventing suicidal ideation, particularly among university students. This study emphasizes the importance of fostering supportive environments and addressing loneliness to mitigate the risk of suicide among this vulnerable population.

Keywords: loneliness, perceived social support, suicidal ideation, university student

Hubungan *Perceived Social Support* dengan Ide Bunuh Diri melalui Kesepian sebagai Mediator pada Mahasiswa

Abstrak. Setiap tahunnya, angka kasus bunuh diri di kalangan mahasiswa terpantau mengalami peningkatan yang signifikan. Alasan penting yang dianggap paling bertanggung jawab atas insiden bunuh diri adalah kesepian, dan dukungan sosial yang dirasakan adalah upaya yang terkenal untuk mengurangi perasaan ini di kalangan mahasiswa. Penelitian ini bertujuan untuk mengetahui hubungan antara *perceived social support* dengan ide bunuh diri melalui kesepian sebagai mediator pada mahasiswa. Penelitian kuantitatif ini menggunakan sampel sebanyak 395 responden yang diambil menggunakan teknik *purposive sampling* dengan kriteria mahasiswa aktif yang berusia 18-24 tahun dan memiliki pasangan atau sahabat. Terdapat tiga skala yang digunakan yaitu skala ide bunuh diri, skala *perceived social support*, dan skala kesepian. Teknik analisis data yang digunakan adalah dengan analisis jalur (*path analysis*). Pengaruh mediasi melalui kesepian menghasilkan pengaruh yang lebih besar dibandingkan pengaruh langsung (-.4676 > -.225) dan kesepian berperan sebagai mediasi parsial. Hasil analisis menunjukkan bahwa terdapat hubungan yang signifikan antara *perceived social support* dengan ide bunuh diri melalui kesepian sebagai mediator pada mahasiswa. Implikasi dari penelitian ini adalah hasil penelitian ini dapat membantu pencegahan ide bunuh diri melalui peningkatan *perceived social support* dari keluarga, teman, dan orang yang berarti dengan adanya penurunan perasaan kesepian pada seseorang khususnya mahasiswa.

Kata Kunci: ide bunuh diri, kesepian, mahasiswa, *perceived social support*

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Suicide is a prevalent issue in society that has been observed to consistently occur at a higher rate each year. According to the World Health Organization (WHO) 2021, approximately 700,000 individuals die by suicide annually, emphasizing its status as a global phenomenon. Furthermore, police data reported approximately 671 suicides, while Statistics Indonesia (BPS) recorded 5,787 cases of attempted and completed suicides in 2020. These incidents show the continued relevance and impact of suicide in society.

As stated in a previous investigation, suicide is the second-leading cause of death worldwide among individuals aged 15-29 years (Damarjati, 2019). This incident represents a significant public health concern, particularly considering its prevalence during adolescence and early adulthood. Accordingly, addressing this issue is crucial due to its frequent occurrence among these age groups. To further reinforce the subject matter, Salsabhilla and Panjaitan (2019) stated that young individuals, particularly students experiencing the transition from adolescence to early adulthood, were particularly vulnerable to suicidal thoughts and behaviors. This developmental shift has been found to introduce numerous changes, which can lead to new challenges and problems in the lives of individuals (Santrock, 1999).

According to another prior exploration, individuals who advance to higher education, such as university students, often face various psychological challenges (Gonçalves et al.,

2014). For instance, feelings of isolation and distance from home can result in a perceived lack of social support, and stressful events as well as circumstances can provoke both positive and negative emotional responses, which may contribute to suicidal behavior (Adinda & Prastuti, 2021). As stated by Kutcher and Chehil (2007), suicidal behavior can manifest as ideation. The term "suicidal ideation" refers to having a plan and desire to commit suicide, even if the individual does not attempt it at a given time (Beck et al., 1979). The extent of suicidal ideation have been observed to vary widely, ranging from fleeting thoughts to detailed and extensive plans. (Pervin & Ferdowshi, 2016).

The development of this consideration can be influenced by a lack of perceived social support. It may also serve as a short-term predictor, arising from feelings of defeat and hopelessness (Owen et al., 2022). In general, perceived social support is crucial for helping individuals overcome existing problems, under the assumption that the required support is available when needed. Kusumastuti et al. (2021) found that perceived social support from family and friends is related to suicidal ideation. This is evidenced by the fact that long-term support from family helps individuals feel consistently supported, hence, reducing stress and the risk of suicidal thoughts. However, support from friends has been found to often provide a sense of camaraderie, as individuals in the same age bracket share similar

developmental phases and stressors. According to Mamat et al. (2022), low perceived social support correlated with suicidal ideation, as insufficient support from others, particularly family and friends, can lead to feelings of being unloved and lonely (Eisenberg et al., 2007).

Based on observations, a series of problems related to interpersonal relationships, along with emotional disturbances, can intensify suicidal thoughts in individuals. This was supposed by Shneidman (1998) who explained that emotional disturbances comprised a range of negative emotions, including loneliness. Subsequently, Adam et al. (2011) emphasized that loneliness is related to indicators of social integration, such as romantic relationships, perceived social support, and acceptance. It is also important to state that individuals with poor social skills often experience less satisfying social relationships, leading to feelings of loneliness (Peplau & Perlman, 1982). Which, in this regard, is characterized by the absence of supportive social relationships (Cacioppo et al., 2002). Rashid et al. (2016) also reported that loneliness is strongly related to perceived social support from others. According to the study, an increase in perceived social support can reduce the level of loneliness experienced by individuals. This feeling has been observed by previous studies to effectively mediate the relationship between perceived social support and life satisfaction in young adults (Lu et al., 2021), as well as between physical pain and suicidal ideation

(Lutzman et al., 2021). While existing literature has provided valuable information regarding the mediating role of loneliness between various variables, its specific function as a mediator between perceived social support and suicidal ideation, particularly among students transitioning from adolescence to early adulthood, remains unclear.

Following the discussion, it can be concluded that individuals who receive minimal perceived social support are almost probable to experience increased feelings of loneliness, while those with sufficient perceived social support generally feel less lonely. Based on this understanding, the level of loneliness influenced by perceived social support can be inferred to significantly impact suicidal ideation. Therefore, this study aimed to explore the role of loneliness as a mediator in the relationship between perceived social support and suicidal ideation.

Method

The present study adopted a quantitative approach and path analysis developed from multiple regression analysis. The population consisted of 32,955 active Sebelas Maret University students, out of which a sample of 395 students was selected using the Slovin technique, with a 5% error margin. Data collection was conducted through purposive sampling, targeting active undergraduate students aged 18-24 years who had a partner or friend.

Three scales were used in this study, all of which were modified and tested for reliability and validity. Accordingly, content validity was assessed using Aiken's V, with evaluations conducted by five clinical psychologists. The suicidal ideation scale, which was adapted from Beck et al. (1979) and developed by Mahzunah (2021) (α = .942), consisted of 18 items with content validity ranging from .90 to 1 and a discrimination index of .402 to .859. The perceived social support scale, based on Zimet et al. (1988) and developed by Ikhwaningrum (2021) (α = .937), included 12 items with a discrimination index between .579 and .801 and content validity from .90 to 1. Lastly, the loneliness scale, derived from (Russell, 1996) and developed by (Pramitha & Astuti, 2021) (α = .930), contained 18 items, with an item discrimination index ranging from .318 to .803 and content validity between .90 and 1. Before conducting path analysis, several prerequisites were carried out, including a normality test using Kolmogorov-Smirnov, a linearity test, a multicollinearity test observing the VIF value, and a heteroscedasticity test using Spearman's rho. It is also important to state that data analysis was performed using SPSS version 20.

Table 1

Results of the Normality Test

Variable	p	Category
Unstandardized Residual	.200	Normal

Table 1 shows the residual results of the variables, perceived social support, loneliness, and suicidal ideation. The results indicate that for all the observed variables, p = .200 (p > .05), emphasizing that each fell within the normal category.

Table 2

Result of the Linearity Test

Variable Correlation	p
Perceived Social Support * Suicidal Ideation	.000
Perceived Social Support * Loneliness	.000
Loneliness * Suicidal Ideation	.000

Based on the data presented in Table 2, the results of the linearity test for each variable relationship are p = .000 (p < .05). This shows the presence of a linear relationship between each variable.

Table 3

Result of Multicollinearity Test

Variable	Tolerance	VIF
Perceived Social Support	.594	1.682
Loneliness	.594	1.682

As documented in Table 3, the results of the multicollinearity test for the variables perceived social support and loneliness showed a tolerance value of .594 (>.10) and a VIF value of 1.682 (between 1 and 10). Therefore, it was inferred that no symptoms of multicollinearity were observed.

Table 4

Result of the Heteroscedasticity Test

Variable	p
Perceived Social Support	.837
Loneliness	.436

Table 4 shows the results of the heteroscedasticity test for the perceived social support variable (p = .837) and the loneliness variable (p = .436). Based on the observations, both exceeded .05, indicating no symptoms of heteroscedasticity.

Results

The present study aimed to examine the relationship between perceived social support and suicidal ideation among students, with loneliness as a mediator. Before assessing the mediation effect, it was essential to first establish the relationships between the variables.

Table 5

Result of Regression Test

| Variable	B	β	t	p
Perceived Social Support * Suicidal Ideation	-.300	-.225	-4.130	.000
Loneliness * Suicidal Ideation	.343	.381	6.987	.000
Perceived Social Support * Loneliness	-.942	-.637	-16.373	.000

Table 5 presents the results of the regression test carried out in this study. Based on the results, the significance value of the independent variable, perceived social support, in relation to the dependent variable, suicidal ideation, was .0001 (< .05), indicating a significant negative relationship with a Beta value of -.225. Additionally, the significance

value between the independent variable and the mediator variable, loneliness, was .0001 (< .05), showing a significant relationship with a Beta value of -.637, also negative. Regarding the relationship between the mediator, and the dependent variable (suicidal ideation), the obtained significance value was .0001 (< .05), indicating a significant relationship with a Beta value of .381, which is positive.

Figure 1

The Beta Values Chart
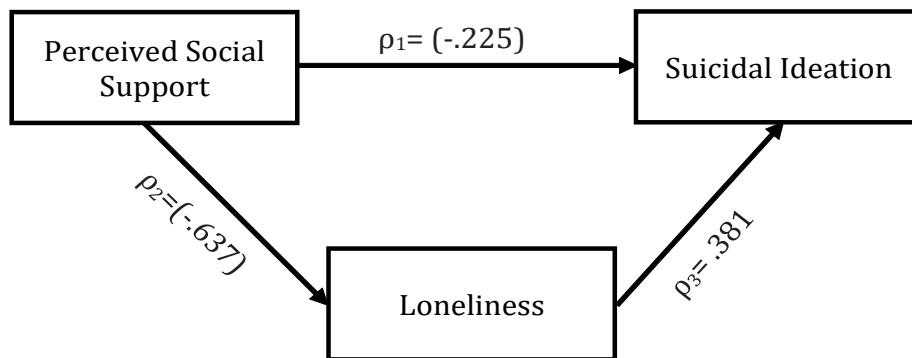
The regression test showed that the total or indirect effect (-.4676) was greater than the direct effect (-.225). Therefore, it can be inferred that loneliness acted as an effective mediator in the relationship between perceived social support and suicidal ideation in university students.

Table 6

PROCESS SPSS Analysis

Pathway	p	95% CI	
		LL	UL
Perceived social support – Loneliness (a)	.0000	-1.0554	-.821
Loneliness – Suicidal ideation (b)	.0000	.2466	.4397

Following the regression test, a PROCESS analysis was conducted using the SPSS program to examine the role of loneliness as a mediator. As presented in Table 6, the analysis showed that path a (-1.0554; -.821) and path b (.2466; .4397) in the 95% confidence interval (CI) did not include the value 0, indicating the presence of a mediation effect (Hayes, 2017).

Table 7

Model Summary of PROCESS SPSS Analysis

R	R-sq	MSE	F	df1	df2	P
.5529	.3057	53.5592	86.3067	2.0000	392.0000	.0000

Based on Table 7, the correlation coefficient between perceived social support and suicidal ideation through loneliness is .5529. This value falls within the moderate range (.40 - .599), according to (Sugiyono, 2022).

Table 8

Effect of Independent Variables After Controlling Mediator Variables

Variable	B	SE	β	t	p
Suicidal Ideation	-.139	.034	-.185	-4.130	.000
Loneliness	-.365	.030	-.540	-12.050	.000

Note. a. Dependent Variable: (Constant), Perceived Social Support

According to Baron and Kenny (1986), partial mediation occurs when there is a significant but reduced effect between the independent and dependent variables after controlling for the mediator variable. Table 8 shows a significant relationship between the independent variable, perceived social support, and the dependent variable, suicidal ideation, with a Beta value decreasing from -.225 to -.185, indicating that loneliness acted as a partial mediator.

Discussion

Based on the analysis, it was found that loneliness effectively mediated the relationship between perceived social support and suicidal ideation. This was evidenced by the fact that the total effect through loneliness (β total = -.4676, *p* = .0000) was greater than the direct effect of perceived social support on suicidal ideation (β = -.225, *p* = .0000). In this context, the negative values show the direction of the relationship, suggesting a dynamic among the three variables, where loneliness influenced the tendency for suicidal ideation, and perceived social support has a smaller or weaker direct role in this relationship. The mediating role of loneliness has also been observed by Kang et al. (2016) regarding perceived social support and quality of life. As stated in a previous study, suicidal ideation can arise from health problems, particularly mental health issues (Pajarsari & Wilani, 2020). This variable can be mitigated by having perceived social support, which in turn has the capability to reduce the impact of these health problems (Segrin & Passalacqua, 2010).

Students face numerous challenges and changes when transitioning to a university. As observed, this period typically comprises significant psychological, social, and environmental adjustments, often coupled with separation from parents and home. These difficulties in adapting can lead to feelings of loneliness and hopelessness (Paula et al., 2020). According to Santos et al. (2017), this transition period can lead to suicidal ideation, whether due to the shift from adolescence to adulthood or challenges encountered in academic life.

As previously mentioned, the tendency for individuals to have suicidal thoughts can be significantly influenced by loneliness, hence, the role of perceived social support becomes more pronounced when loneliness acts as a mediator. This is supported by Ernst et al. (2021), who stated that the mediating variable is a significant reason why individuals harbor suicidal thoughts. One of the respondents interviewed in this study explained the reason why students harbor suicidal thoughts with the following statement, "The stimulus is a clash between family factors, love factors, and education factors. At that time, I was in a position where I had a problem with him (love). Because it was still early in getting close to him, I did not know who to tell. Honestly, I also did not know how to do it, the phase of thinking about the least painful way every night." The problems stated by the respondent showed a lack of perceived social support in the areas of family and significant others. The respondent also added, "Indirectly, it becomes a stimulus with the feeling of having no one." This statement reflects an aspect of loneliness, specifically the desire for social connection.

According to Antonelli-Salgado et al. (2021), the variable can also be referred to as a failure in the sense of belonging, making it an important predictor of suicidal behavior. At the early stage of adulthood, individuals typically focus on the next societal role and loosen ties with existing social support (Nicolaisen & Thorsen, 2014). During this phase, if new bonds are not formed or social identities are not properly adjusted, feelings of loneliness may develop. As observed, feelings of loneliness are usually possessed by individuals who lack friendships, romantic relationships, and family support (Hombrados-Mendieta et al., 2013). This observation was further supported by the interviewed respondent who shared personal strategies on how to combat the idea of committing suicide. According to the respondent, "I still try to find friends, find people to accompany me, so I do not do that (suicide)." Rachmanie and Swasti (2022) explained that friends can also help alleviate stress during difficult times. Furthermore, Lee & Goldstein (2016) reinforced the elucidation by adding that support from friends or romantic partners is highly beneficial for students experiencing lower levels of loneliness, and family plays a crucial role in the well-being of youth. Based on these observations, it was concluded that perceived social support from family, friends, and significant others, combined with reduced loneliness, can foster feelings of appreciation and care, contributing to better health (Segrin & Passalacqua, 2010).

The analysis results, as presented in Table 8, show that the correlation coefficient of perceived social support with suicidal ideation through loneliness fell within the moderate interval, and loneliness acted as a partial mediator. This shows that suicidal ideation in individuals can also be influenced by other factors, both internal and external. According

to Astuti (2019), interpersonal relationships were not a mainstay in predicting the psychological well-being of individuals, especially concerning suicidal ideation. Internal factors such as depression and self-esteem can play a significant role in this context. Beutel et al. (2017) further stated that loneliness can contribute to suicidal ideation, while depression and anxiety disorders can cause individuals to refrain from social contact due to obstacles and fears. The relationship between loneliness and suicidal ideation has also been observed to be related to other symptoms of mental distress (Ernst et al., 2021).

The results of the analysis also showed the presence of a direct relationship between perceived social support and suicidal ideation (p = .0001, β = -.225), although the effect is smaller than through loneliness. This negative relationship indicates that higher perceived social support corresponds to lower suicidal ideation in an individual, in line with Kusumastuti et al. (2021). It is also important to state that Naila and Takwin (2018) support the finding that perceived social support and suicidal ideation have a negative relationship value, indicating that the higher the perceived social support, the lower the suicidal ideation. Accordingly, Salsabhilla and Panjaitan (2019) stated that effective family support fosters feelings of support in students, reducing stress and decreasing the probability of suicidal ideation. Family serves as a primary source of support, as evidenced by the fact that

individuals often expect family to be the first line of support compared to other sources.

Following families, friends have also been observed to be a significant source of social support, as pairs often experience similar developmental stages and stressors. This shared experience makes friends valuable for sharing stories and providing mutual support (Salsabhilla & Panjaitan, 2019). As stated, significant others can assist individuals in mobilizing respective psychological resources, controlling inherent emotions, sharing tasks, providing necessary supplies, and offering cognitive guidance to improve the management of various situations (Song et al., 2011). Based on these observations, conclusions can be made that support from family, friends, and significant others (external factors) also plays an important role in reducing suicidal ideation.

Conclusions

In conclusion, this study aimed to thoroughly examine the relationship between perceived social support and suicidal ideation in university students, with loneliness serving as a mediator. The results of the analysis showed that the relationship between perceived social support and suicidal ideation is inversely proportional. This indicates that the higher the perceived social support, the lower the suicidal ideation. It was also observed that loneliness effectively mediated the relationship between the dependent and independent variables,

showing a stronger impact than the direct influence.

Implication

The present study aims to strengthen and expand upon previous explorations regarding the role of loneliness in the relationship between perceived social support and suicidal ideation in university students. Additionally, it is expected that the obtained results will aid in preventing suicidal ideation by enhancing perceived social support from family, friends, and significant others, thereby reducing feelings of loneliness, especially among university students.

Recommendation

Based on the observations made during the course of this study, it is recommended that students and society strive to better recognize the tendency for suicidal thoughts by considering the importance of support from family, friends, and partners. Furthermore, careful attention should be given to orientation periods during university transitions, as this can help students avoid feelings of loneliness by ensuring the availability of friends and mentors to aid adaptation. As observed, the tendency for suicidal thoughts is partly influenced by the feeling of loneliness, and support from family, friends, as well as significant others is crucial in mitigating this feeling. To provide effective support, family, friends, and special individuals should be present when needed, listen non-judgmentally, offer motivation and encouragement, provide advice, and avoid abandoning those facing difficulties. Within this context, future studies can explore variations in study subjects, such as gender differences, and examine different types of social support, including emotional, instrumental, and informational support. Additionally, these studies could investigate other factors or mediating variables, such as depression or physical activity, and analyze the duration and intensity of social support received by students.

Acknowledgment

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