

THE ROLE OF PERCEIVED SOCIAL SUPPORT IN REDUCING THE RISK OF PTSD AMONG COVID-19 SURVIVORS IN INDONESIA

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Abstract

The COVID-19 pandemic has not only caused physical health concerns but has also led to psychological challenges, including the risk of post-traumatic stress disorder (PTSD). This study aimed to explore the relationship between perceived social support and PTSD in COVID-19 survivors. A sample of 221 participants was selected, and data were collected using modified Perceived Social Support and PTSD Checklist for DSM-V (PCL-5) scales. The results revealed a significant negative correlation ($r = -0.356$; $p < 0.05$) between perceived social support and PTSD, suggesting that higher social support is associated with lower PTSD symptoms. However, the findings are limited to the specific sample used, and future research should consider a more representative sample for broader generalization.

Keywords: Perceived Social Support, PTSD, COVID-19 Survivors

1. INTRODUCTION

Based on the most recent data provided by the World Health Organization (WHO, 2022), the current global count of COVID-19 infections has reached 694.505.841 cases, resulting in a tragic toll of 6.910.973 lives lost. Within the confines of Indonesia, as per the information sourced from the Ministry of Health (Kemenkes, 2022), the documented number of COVID-19 cases stands at 6.813.095, with a sorrowful count of 161.916 individuals who have passed away due to this virus. Apart from the physical implications, the spread of infectious diseases often triggers a cascade of psychological challenges (Bhandari et al., 2020). One such challenge is the emergence of post-traumatic stress disorder (PTSD), which develops after individuals experience life-threatening traumatic incidents. This arises from the fact that virtually all COVID-19 patients—irrespective of the severity of their symptoms, whether they are quarantined at home or in government facilities or undergoing isolation in hospitals—are generally prohibited from receiving visits from their family members. As a result, this restriction significantly curtails personal liberties and disrupts the customary

lifestyle habits of individuals compared to the period preceding the pandemic. Hence, when individuals contract COVID-19, it is conceivable that this could act as a catalyst for traumatic experiences, inducing stress for all patients or survivors (Mazza et al., 2020).

In Indonesia, there has been limited quantitative research concerning the occurrence and psychological consequences endured by survivors, especially those who have developed PTSD as a result of the COVID-19 pandemic. However, the Indonesian Association of Psychiatrists (Perkumpulan Dokter Spesialis Kedokteran Jiwa Indonesia or PDSKJI) conducted a survey including 4,010 participants from the general population. This study utilized an electronic self-report survey that was distributed across 34 provinces in Indonesia to investigate the psychological challenges experienced during a five-month period of the COVID-19 pandemic. The results demonstrate that 65% of respondents reported experiencing anxiety, 62% reported feelings of depression, and 75% reported experiencing trauma. Those individuals between the ages of 17 to 29 years old and those over 60 years old were the most affected group by psychological problems. Regarding gender differences among those affected, the survey indicated that 71% of female respondents experienced disturbances, in comparison to 29% of male respondents (PDSKJI, 2021).

Based on the initial findings gathered by the researchers, it was noted that individuals identified as displaying symptoms of PTSD were predominantly women, aged around 55 years, and underwent approximately 18 days of isolation treatment in a hospital. A contrasting scenario unfolded for other subjects who opted for home treatment and received care from family members; these individuals did not exhibit signs of PTSD, likely due to the presence of social support during their treatment period. As a result, the researchers posited a hypothesis linking the presence of social support with the emergence of PTSD symptoms among COVID-19 survivors. Previous studies (Cai et al., 2020; Chen et al., 2021; Tentama, 2015) have shown that treatment length, gender, age, and lack of social support are risk factors for PTSD in COVID-19 survivors after treatment (Cai et al., 2020; Chen et al., 2021; Tentama, 2015).

2. LITERATURE REVIEW

According to Lazarus (Lambert & Lazarus, 1970), the development of post-traumatic stress disorder (PTSD) is contingent upon the level of social support individuals receive, with interpretation of situations playing a significant role. The impact of post-traumatic stress disorder (PTSD) resulting from inadequate social support, as posited by Lazarus (Lambert & Lazarus, 1970), is contingent upon individuals' cognitive appraisals of various circumstances. According to Lambert and Lazarus (1970), the evaluation made by an individual regarding a certain situation plays a vital role in defining the impact of stress caused by that event. Increased unfavourable evaluations, whether originating from primary or secondary sources, contribute to heightened emotional stress experienced by

individuals, ultimately leading to the development of psychological diseases (Lambert & Lazarus, 1970). Lazarus (Lambert & Lazarus, 1970) posits that the development of post-traumatic stress disorder (PTSD) in individuals is contingent upon their interpretation of experiences, particularly in the context of limited social support. This text is already of appropriate academic writing quality; consequently, it should not be altered. According to Cohen and Wills (1985), further scholars have asserted that an individual's perception of support and resources from individuals within their social network exhibits a positive association with psychological well-being, while displaying a negative association with psychological discomfort and psychopathology.

Lahey and Cohen (2015) propose that social support theory can be categorised into two main types: received social support and perceived social support. The concept of received social support pertains to the tangible assistance and aid that an individual really receives from their social network. Conversely, perceived social support pertains to the individual's subjective perception and belief regarding the availability of support from their social network. Lahey and Cohen (2015) propose that social support theory can be categorised into two main types: received social support and perceived social support. Cohen and Wills (1985) have shown that variations in individuals' need for support can lead to divergent interpretations of the same level of received assistance, resulting in varying levels of felt support. According to Cohen and Wills (1985), the influence of perceived social support on individual well-being is greater than that of received social support. According to the study conducted by Wethington and Kessler (1986), it was determined that the perception of social support holds greater significance in adapting to stressful life situations compared to the actual receipt of social support. The enhancement of an individual's mental health can be attributed to perceived social support, irrespective of the veracity of such impression (Wethington & Kessler, 1986). According to the study conducted by Wethington and Kessler (1986), it was determined that the perception of social support holds greater significance in adapting to stressful life situations compared to the actual receipt of social support.

The significance of perceived social support in relation to the development of symptoms of post-traumatic stress disorder (PTSD) has generated scholarly attention, prompting researchers to re-evaluate the connection between perceived social support and PTSD. In a preliminary investigation, it was observed that there was a notable disparity in the interview outcomes between subject 1 and subject 4, specifically pertaining to the receipt of social support during COVID-19 treatment. This finding indicated that such support played a mitigating role in reducing the likelihood of post-traumatic stress disorder (PTSD) symptoms emerging. Survivors of Covid-19 encounter multifaceted crises, including both physical and psychological dimensions, as a consequence of enduring solitary confinement, confronting perilous encounters with mortality, enduring physical distress, and enduring highly distressing circumstances that yield profound traumatic

repercussions. The present study highlights the distinctiveness of this condition in comparison to the experiences of survivors of disasters, sexual violence, and other related circumstances. Moreover, there is a growing interest among scholars to investigate the prevalence of post-traumatic stress disorder (PTSD) among those who have survived the COVID-19 pandemic in Indonesia. This specific demographic has received limited attention in the existing body of research. The prevalence of post-traumatic stress disorder (PTSD) symptoms is notable among those who have survived COVID-19, whether their cases were officially recorded or not. This possibility is particularly pronounced among survivors who view their social support to be inadequate.

3. METHOD

This research was conducted amid the COVID-19 pandemic, spanning from January to March 2022, with the distribution of questionnaires facilitated through Google Forms. The research sample encompassed individuals falling into three categories: COVID-19 survivors, those who had been exposed to the virus and subsequently recovered, and individuals who had tested positive for COVID-19. The sample criteria were specifically tailored to include individuals who had recuperated from COVID-19 at least 3 months prior, a deliberate choice made to differentiate between ordinary trauma symptoms and symptoms associated with post-traumatic stress disorder (PTSD). Employing a quantitative correlational research design, this study set out to investigate the relationship between perceived social support (variable X) and post-traumatic stress disorder (variable Y). The research methodology employed non-probability accidental sampling. The determination of the sample size drew inspiration from Malhotra's hypothesis (2011), which recommends a minimum sample size of four to five times the number of questionnaire items. In this instance, with a total of 44 questionnaire items, the calculated minimum sample size amounted to 220 individuals (derived from multiplying 44 by 5).

This study used two measurement instruments, namely a modified version of the PCL-5 scale and the perceived social support scale. The PCL-5 derived from Sulityo (2018) was used in the Indonesian version. The Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5) has been widely researched and frequently used as an assessment instrument for PTSD (Weathers et al., 2018). With modifications made to the diagnostic criteria for posttraumatic stress disorder (PTSD) as outlined in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), this scale has been revised to fit these updates (APA, 2021). This discussion relates to the measurement of perceived social support, as outlined in the theoretical framework proposed by Sarafino and Smith (2012), which refers to the findings of previous research conducted by Kristanti (2020).

In this study, content validity was tested on both instruments by involving experts. Experts such as psychologists, psychological scientists, health workers and COVID-19 survivors were gathered and held discussions about the meaning of the instruments and

gave recommendations on the meaning and content of the instruments. Furthermore, researchers conducted the Aiken's V validity test to see which items passed and failed. After the overall aitem was accepted, a pilot test was conducted on the instrument using 35 samples to produce a valid and reliable instrument before being administered. The data analysis employed in this study encompasses assumption tests, including assessments of normality and linearity, as well as hypothesis testing utilising the Spearman Rank and Kendall Tau formulas.

4. RESULTS and DISCUSSION

a. Results

The normality of the data was assessed by the utilisation of the Kolmogorov-Smirnov Z test (K-S Z), a statistical test available in the SPSS for Windows 16.0 software package. The conventional criterion employed in assessing the normality of data is to consider a distribution as normal if the p-value is greater than 0.05, but a p-value less than or equal to 0.05 indicates a non-normal data distribution. The normality test results for the perceived social support variable among COVID-19 survivors yielded the Kolmogorov-Smirnov Z value as presented in the following table:

TABLE 1. Normality Test Results on Perceived Social Support

Kolmogorov Smirnov Z	1.630
Asymp sig 2 tailed	0.010

Based on the provided table, it can be shown that the Kolmogorov-Smirnov Z-value is 1.630, while the two-tailed asymptotic significance value is 0.010. This implies that the data does not exhibit a normal distribution, as the obtained significance value of 0.010 is less than the predetermined threshold of 0.05. The normality test results for the PTSD variable in the population of COVID survivors are presented in the following table:

TABLE 2. Normality Test Results on PTSD

Kolmogorov Smirnov Z	2.521
Asymp sig 2 tailed	0.000

After performing a normality test on the variable representing post-traumatic stress disorder (PTSD), a Kolmogorov-Smirnov Z value of 2.521 was obtained, with a two-tailed significance value of 0.000, which is less than the predetermined threshold of 0.05. The results of the normality test reveal that neither of the variables exhibits a normal distribution.

TABLE 3. Linearity Test

PTSD * PercievedSocialSupport	Sig.
Deviation from Linearity	0,060

Based on the aforementioned linearity test, it is evident that the p-value associated with the departure from linearity is 0.060, which above the conventional significance level of 0.05. This suggests the presence of a linear association between the two variables. Based on the outcomes of the preliminary test conducted on the data, it was determined that both variables, perceived social support and post-traumatic stress disorder (PTSD), exhibited non-normal distribution and were subjected to linear testing. These findings suggest that there exists a linear association between the two variables. Hence, the examination of these variables can be conducted via Spearman's correlation approach.

TABLE 4. Correlation Test Results

<i>Percieved Social Support * PTSD</i>	r Value	Sig. (2-tailed)
<i>Kendall's tau_b</i>	-0,253	0,000
<i>Spearman's rho</i>	-0,356	0,000

Due to the non-normal distribution of the data gathered in this study, the research data does not meet the requirements for parametric analysis. In this work, nonparametric data analysis methods, such as Spearman and Kendall Tau, are employed to test hypotheses due to the fact that the acquired data does not satisfy the requirements for parametric data analysis.

The provided table illustrates that the correlation coefficients lie within the range of -0.21 to -0.40, suggesting a modest association between the two variables. Furthermore, given that the correlation coefficient exhibits a negative value, it can be inferred that there exists a negative association between the variables. The presence of a notable correlation between the two variables is apparent, as indicated by a two-tailed significance value of 0.000, which is less than the conventional threshold of 0.05. This finding suggests a correlation between the perception of social support and the presence of post-traumatic stress disorder (PTSD) among those who have survived COVID-19. This implies that there is an inverse relationship between the level of perceived social support that individual receives and their susceptibility to developing post-traumatic stress disorder (PTSD). Based on the obtained correlation coefficients of -0.253 and -0.356, it can be concluded that the correlation between the variables is weak and negative, indicating an inverse link.

In order to conduct a more comprehensive analysis, the researcher utilised the Independent Sample T-test to assess the disparity in mean PTSD ratings among people with varying levels of perceived social support. The sample grouping yielded the subsequent outcomes: In order to establish distinct groups, a 50th percentile methodology was employed, leading to the utilisation of a score of 71 as the threshold for dividing the sample into two distinct groups.

TABLE 5. Cut Points for T-Test Analysis

<71	Lower Score
>71	Highest Score

As for the results of the independent sample T test analysis, the following results were obtained:

TABLE 6. T-Test Analysis

PercievedS ocialSuppo rt		N	Mean	Std. Deviation	Std. Error Mean
PTSD	>= 71	124	10.77	10.508	.944
	< 71	97	18.71	14.967	1.520

In addition, the following findings were discovered by the application of the F-test:

TABLE 7. F-Test Result

Countable F Value	12,165
Sig. 2 tailed	0,001

The F-test value of 12.165, which is greater than the significance level of 0.05, suggests that there is evidence to support the assumption of equal variances. Consequently, the further analysis will proceed under the assumption of equal variances, with a two-tailed significance level of 0.001, which is less than the threshold of 0.005. Consequently, the null hypothesis (H₀) is rejected, while the alternative hypothesis (H_a) is accepted, suggesting a statistically significant disparity in the mean post-traumatic stress disorder (PTSD) scores across individuals, contingent upon their perceived level of social support.

In order to provide more insight, the researcher conducted a test to examine the impact of demographic distribution on variables X and Y. The purpose of this study is to enhance the researcher's understanding of the various elements that influence the increase or decrease in perceived social support and post-traumatic stress disorder (PTSD) within the selected research sample. The findings are presented as follows. The analysis was conducted using the regression technique by the researcher.

TABLE 8. Regression Analysis

Demographic Variables	Sig. Value of Percieved Support	R Square Value of Percieved Social Support	Countable Sig. Value of PTSD	R Square Value of PTSD
Age	0,014	0,027	0,161	0,009
Sex	0,577	0,001	0,004	0,038
Educational level	0,005	0,036	0,442	0,003
Treatment Place	0,848	0,000	0,711	0,001

Level	of	0,036	0,020	0,454	0,003
Symptom					
Treatment		0,431	0,003	0,845	0,000
Duration					

Based on the data presented in the table, it is evident that variables such as age, educational attainment, and the extent of COVID symptoms reported by the participants had a discernible impact on the variable of perceived social support. The computed significance values, which are below the threshold of 0.05, provide clear evidence for rejecting the null hypothesis (H_0) and accepting the alternative hypothesis (H_a). This outcome suggests that age, educational level, and level of symptoms have a significant impact on perceived social support in the context of this study. The user's text lacks context and already corresponds to the specified guidelines. No adjustments are necessary. The calculated R-squared value of 0.038 suggests that gender accounts for approximately 3.8% of the variability in the level of PTSD.

b. Discussion

The objective of this study is to examine the correlation between an individual's perceived level of social support and the manifestation of post-traumatic stress disorder (PTSD) symptoms among individuals who have survived the COVID-19 pandemic. According to the researchers mentioned in the background section, individuals who have recovered from COVID-19 are not only prone to medical ailments, but also subject to psychological disruptions. Numerous investigations have elucidated diverse manifestations of mental illnesses that manifest subsequent to persons' recuperation from COVID-19, among which is post-traumatic stress disorder (PTSD). The aetiology of post-traumatic stress disorder (PTSD) in individuals who have experienced trauma is attributed to elevated levels of general discomfort during the acute phase of the traumatic event, afterwards resulting in the development of psychological problems (Chen et al.). Apriani et al. (2021) believe that individuals who have contracted Covid-19 exhibit heightened levels of vigilance in response to perceived dangers, which can be attributed to the traumatic experiences they have had. This heightened state of alertness might result in a reluctance to engage in repetitive unfavourable experiences that may impact both the individual and their immediate social circle. The potential consequences of exposure to or infection with COVID-19 can exert a substantial influence on the future trajectory of affected individuals' lives. Nevertheless, a number of studies indicate that the likelihood of developing post-traumatic stress disorder (PTSD) may be mitigated with the provision of support from individuals in close proximity. A study was undertaken by researchers who discovered that the variable of perceived social support is a significant element, leading them to further analyse the relationship between the two variables.

The study was designed by researchers to investigate the link between the perceived amount of social support and characteristics related to post-traumatic stress disorder (PTSD) through the use of correlation analysis. Prior to completing the hypothesis test, the researchers conducted preliminary experiments to ascertain the suitable analytical approach. The necessary examinations encompassed assessments of normalcy and linearity. After performing the Kolmogorov-Smirnov normality test, it was observed that the obtained significance values were 0.010 and 0.00, both of which were found to be lower than the predetermined significance level of 0.05. Hence, it can be inferred that the distribution of the data is not normal. The researcher conducted a test to assess the presence of linearity and found that the significance value for departure from linearity was 0.060, which is greater than the predetermined threshold of 0.05. This suggests that there is a linear relationship between the two variables.

The researcher proceeded to conduct tests on the hypotheses pertaining to both the independent and dependent variables. Given that the data did not demonstrate a normal distribution, the researcher proceeded to perform correlation analysis with the Spearman Rank and Kendall Tau methods. The Spearman analysis yielded a calculated significance value of 0.00, which is less than the predetermined threshold of 0.05. Similarly, the Kendall Tau analysis resulted in a significance value of 0.00, also below the 0.05 threshold. Therefore, by employing both methodologies, the null hypotheses were invalidated, and the alternative hypotheses were supported. Therefore, it can be inferred that a correlation exists between the variables of perceived social support and post-traumatic stress disorder (PTSD) among those who have survived COVID-19.

This study is consistent with other research conducted by Pantow et al. (2020), Rizaldi & Rahmasari (2021), and Susanti et al. (2021), which have demonstrated that active social support has the potential to mitigate the impact of stress arising from COVID-19, hence influencing the overall physical and mental well-being of those affected by the virus. In this particular scenario, the advantages of social support, encompassing both direct and indirect forms, might facilitate an individual's ability to manage their stress (Cohen & Wills, 1985). Consequently, this support enables people to exhibit their utmost exertion, thereby reflecting their full potential. The aforementioned proposition put forth by Major, Zubek, Cooper, Cozarelli, and Richards (Aprianti, 2012) posits that an individual's impression of receiving good support from their close social network is positively associated with their overall well-being.

One of the most prominent theoretical ideas concerning the processes of social support posits that social support serves to mitigate the impacts of stressful life events, generally referred to as buffering effects. According to Cohen and Wills (1985), the present paradigm posits that perceived social support does not exert a direct impact on stress reduction or elimination. Instead, its primary function is to shield individuals from the adverse consequences associated with stress. The buffering mechanism hypothesis is a

postulation proposed by the researcher, which is grounded on the observed correlation coefficient values in the present investigation. The observed correlation coefficient values are within the range of -0.21 to -0.40, which, as per the parameters established by Sugiyono (2017), suggest a modest negative connection. This implies that an elevation in the perceived level of social support may lead to a reduction in scores related to post-traumatic stress disorder (PTSD), albeit the reduction may not reach statistical significance. This finding implies the presence of a moderating variable that enhances the association between the two variables. In accordance with prior scholarly investigations (Lawrence & Fauerbach, 2003; Chen et al., 2021; Lakey, 2013), it is evident that social support functions solely as a mitigating factor, so indicating the existence of additional variables that exert effect on the association between the two aforementioned variables, including coping mechanisms and personality traits.

This study aimed to conduct a comparative analysis of the average scores obtained from two distinct groups of individuals categorized based on their perceived social support levels, namely low and high. The findings of the study indicated that the average score for post-traumatic stress disorder (PTSD) was 18.71 in the group with poor perceived social support, whereas the group with high perceived social support had an average score of 10.77. This finding suggests that there is a statistically significant difference in means, indicating that the variable of perceived social support has the potential to mitigate the likelihood of an individual developing post-traumatic stress disorder (PTSD). Furthermore, the present study revealed that variables such as age, educational attainment, and symptom severity exert an influence on the perceived amount of social support within the selected sample. The impact of perceived social support on efficacy, as indicated by Kurniawati's (2012) study, is also contingent upon the attributes of the individual receiving the support. The impact of perceived social support on efficacy, as indicated by Kurniawati's (2012) study, is also contingent upon the attributes of the individual receiving the support. The aforementioned characteristics encompass aspects such as individual personality traits, behavioral patterns, and societal functions. These qualities exert an influence on the processes involved in controlling an individual's capacity to provide and sustain assistance. Hence, it is plausible that the participants' age and educational attainment in this study could potentially influence their capacity to engage in social support processing, given that a significant proportion of the sample consists of individuals in middle adulthood with a considerable level of educational achievement.

The severity of symptoms is expected to influence the perception of social support as a determinant of the nature of the encountered issue. According to the theoretical framework proposed by Lakey and Cohen (2015), the effectiveness of assistance is contingent upon the alignment between the specific sorts of help offered and the particular issue being addressed. The severity of COVID-19 symptoms is expected to influence individuals' perception of the problem and the quality of support they receive. others

exhibiting more pronounced symptoms of COVID-19 tend to see the illness as a more substantial concern compared to others experiencing milder symptoms. Consequently, a discrepancy may arise between the severity of the issue encountered by the individual and the adequacy of the assistance they have obtained.

Weems et al. (2007) propose that the observed phenomenon can be attributed to less serotonin production in females. The hormone serotonin is widely recognized for its role in the regulation of mood. The neurochemical present in the brain plays a crucial role in the regulation of both anxiety and happiness. Consequently, a correlation has been seen between reduced levels of this particular chemical and the occurrence of mood disorders, anxiety, and sadness. In contrast, elevated levels are linked to sensations of positive mental state and satisfaction.

5. CONCLUSION

Based on the findings of this study, it is evident that a significant relationship exists between the perception of social support and the occurrence of post-traumatic stress disorder (PTSD) among individuals who have survived the COVID-19 pandemic. The two variables exhibit a negative correlation, indicating that a rise in variable X within an individual is associated with a drop in variable Y, and vice versa. Due to the failure to satisfy the assumption test, the findings of this study are precluded from being extrapolated or generalized to the broader community. Additionally, the results of the t-test indicate a statistically significant disparity in the mean scores of post-traumatic stress disorder (PTSD) within the studied sample, when taking into account the variable of perceived social support. The regression analysis reveals that the perceived social support variable is influenced by factors such as age, education level, and the severity of COVID-19 symptoms. The variable of post-traumatic stress disorder (PTSD) is influenced by age.

It is recommended by researchers to employ a sample that is more representative in nature. This implies that the study sample should consist of persons who possess a heightened risk factor for developing post-traumatic stress disorder (PTSD), including females, individuals exhibiting severe symptoms of Covid-19, and those who have been hospitalized in isolation. Consequently, this will facilitate researchers in gaining a clearer understanding of the patterns of the interaction between variables X and Y. In order to explore additional factors that may impact the association between variables X and Y, future researchers may employ factor analysis as a means to get a more thorough comprehension of how the perceived social support and post-traumatic stress disorder (PTSD) link is regarded among individuals who have survived COVID-19.

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