

THE RELIABILITY AND VALIDITY OF MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT (MSPSS) AMONG UNIVERSITY STUDENTS IN MALAYSIA

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Abstract: Social support is crucial to help students cope and analyse their mental health and overall well-being. Students' mental health may be impacted by stress from their personal lives as well as their studies, which may lead to suicidal thoughts and suicide attempts. This study evaluates the Multidimensional Scale of Perceived Social Support (MSPSS) by Zimet et al. (1988) among Malaysian university students regarding internal consistency, item-total correlation method, and convergent, concurrent validity. The sample comprised 268 university students from public and private universities around Malaysia. The Multidimensional Scale of Perceived Social Support (MSPSS) by Zimet et al. (1988) is an instrument to determine the degree of perceived social support from three sources: significant others, family, and friends. Cronbach's alpha of the three dimensions of MSPSS ranges from 0.898 to 0.916, which indicates a high reliability for the instrument. Item analysis using the item-total correlation method also shows that the items for the three distinct MSPSS dimensions are related and measure the same construct. Convergent validity also shows a significant correlation between the three dimensions, as evidenced by their correlation coefficient, which ranged from 0.477 to 0.528 with $p < .001$. On the other hand, concurrent validity scores demonstrate that the YSAS and ATTS scores have a negative and significant relationship with all three of the MSPSS dimensions. MSPSS is a reliable instrument that is suitable for assessing the perceived social support for university students in Malaysia. However, the concurrent validity of this instrument required further research.

Keywords: Social Support, Suicide, Multidimensional Scale

INTRODUCTION

In navigating a university student's challenges, social support plays a significant role in helping students cope and determine their well-being and mental health conditions. The network of social resources that an individual perceives can be characterised by the broad concept of social support. Mutual support, advice, and validation of one another's choices and experiences in life are the foundation of this social network (Zhou, 2014). Holliman *et al.* (2021) have found that university students' psychological well-being is influenced by social support. University students' well-being and mental health are often correlated with their academic success and overall growth, and a lack of social support could cause hindrance in this area. Considering that social support from students' families, peers, and significant others is positively correlated with academic competence and engagement, social acceptance, and the desire to pursue further education, and negatively correlated with stress (Lau *et al.*, 2018; Mulyadi *et al.*, 2020). Social support from these resources also improves students' quality of life and decreases depressive symptoms (Alsubaie *et al.*, 2019).

The relationship between self-efficacy and adjusting to university life is partially mediated by social support, which supports creating initiatives to boost students' social support networks and self-efficacy (Kang & Cho, 2018). Entering university life is a new phase in students' lives, which could make this period confusing and pressuring. Therefore, social support is important for university students, as they are exposed to factors that could contribute to their negative well-being, especially when they lack social support from the people around them.

According to Boersma and Vahratian (2021), in the National Center for Health Statistics (NCHS) data brief in the United States, over 75% of adults over 18 said they always or usually got the emotional and social support required. Of all adults, 52.4% always received the necessary social and emotional support, while 25.1% usually did, 12.2% occasionally did, 4.3% seldom did, and 6.0% never did. Numerous research has also investigated the connection between social support and suicide, emphasising the positive impact of solid social support on the mental health consequences of university students. Duncan et al. (2019) suggested that depression is associated with decreased social support. Both Aizpurua *et al.* (2021) studies on college students in Spain and Chu (2021) on university students in China show that social support reduces the risk of suicidal ideation and attempts by reducing anxiety and depressive symptoms. Furthermore, McClay *et al.* (2020) found that the relationship between disclosure of a suicide attempt and lower suicide risk factors is mediated by higher social support, especially peer support. Social support, which is considered a fundamental human need, moderates and lessens the impact of psychological strains such as depression on suicidality (Lew *et al.*, 2020; Siegmann *et al.*, 2018). Transitioning to university life is often related to transitioning from adolescence to adulthood. A study by Scardera *et al.* (2020) also found that even for individuals who encounter mental health issues during adolescence, perceived social support may offer protection against mental health issues as they enter adulthood. This shows the importance of social support for university students. However, social support is a time-varying protective factor against thoughts of suicide (Coppersmith, 2019), which suggests that this protective effect may vary or become less pronounced over time based on the circumstances and degree of support the individuals receive. Accordingly, understanding how social support functions in the context of students' well-being substantially impacts intervention and prevention that could be implemented to support university students. There have not been many studies done in this context within Malaysia. Therefore, research about social support in the context of university students in Malaysia could help expand the knowledge on this topic and investigate how social support can assist in addressing the challenges they face.

Beliefs about one's value availability and responsiveness to others have been conceptualized as influencing perceived social support (Vaingankar *et al.*, 2012). Multidimensional Scale of Perceived Social Support (MSPSS) by Gregory Zimet, Nancy Dahlem, Sara Zimet, and Gordon Farley was first published in the Journal of Personality Assessment in 1988. It is one of the instruments that aims to measure the perceived social support from three sources: family, friends, and significant others. The scale consists of 12 items, with four items for each subscale. Every item was scored using a 7-point Likert scale, with 1 indicating "very strongly disagree" and 7 indicating "very strongly agree."

This present study aims to assess internal consistency, convergent and concurrent validity, and item-total correlation method for item analysis of the Multidimensional Scale of Perceived Social Support (MSPSS) by Zimet *et al.* (1988) among university students in Malaysia. In addition, this study suggested a significant and positive relationship between the three subscales (family, friends, and significant others).

METHODOLOGY

Research Design

This study employed a quantitative research design, utilizing surveys and questionnaires, intending to examine ensuring that the Multidimensional Scale of Perceived Social Support (MSPSS) by Zimet *et al.* (1988) is a reliable and valid instrument for measuring perceived social support among university students in Malaysia by exploring the consistency of answers, the relationship with other measurements, and the contribution of individual items to the entire scale through three studies which are reliability, convergent validity, and factor analysis.

Participants

A total of 268 (54 male, 214 female) participants among students in Malaysia were selected by Convenience sampling. Convenience sampling is a non-probability sampling strategy that involves

choosing participants from the target population based on accessibility (Lavrakas, 2013). University students were chosen for this study because young adults are among those who are most attracted to the problem of well-being and mental health conditions. Their age ranges from 18 to 27 years old (with an average age of 22.06, SD = 1.167). For the ethnic background section, a certain percentage of the participants represent different ethnic groups, with the majority comprising Bumiputera Sabah (32.8%), Malay (31.7 %), Chinese (21.6 %), Bumiputera Sarawak (6.3 %), Indian (4.9 %) and other (2.6 %). Respondents to the current study who met the criteria were then randomly recruited to complete an online questionnaire using a Google form.

Instruments

The Multidimensional Scale of Perceived Social Support (MSPSS)

The Multidimensional Scale of Perceived Social Support (MSPSS) is an inventory designed by Zimet *et al.* (1988). The MSPSS is a brief 12-item, self-administered measurement tool with three subscales: Family (items 3, 4, 8, and 11), Friends (items 6, 7, 9, and 12), and Significant Others (items 1, 2, 5, and 10). Each item uses a seven-point Likert scale ranging from 1 (very strongly disagree) to 7 (very strongly agree). A higher score indicates greater social support perceived by an individual with a total score range of 12-84, or it also can be scored through subscales by adding the items in each subscale and then dividing by 4. These items are: (1) There is a special person who is around when I am in need. (2) There is a special person with whom I can share joys and sorrows. (3) My family really tries to help me. (4) I get the emotional help & support I need from my family. (5) I have a special person who is a real source of comfort to me. (6) My friends really try to help me. (7) I can count on my friends when things go wrong. (8) I can talk about my problems with my family. (9) I have friends with whom I can share my joys and sorrows. (10) There is a special person in my life who cares about my feelings. (11) My family is willing to help me make decisions. (12) I can talk about my problems with my friends.

Yatt Suicide Attitude Scale (YSAS)

The original Malay version of the YSAS had been developed by a research team from Universiti Kebangsaan Malaysia (Ibrahim *et al.*, 2022). It consists of 10 items to gauge two components, Suicidal Ideation, and Suicidal Attempts: where each with a total of five items. The total number of items is 10 scored on a 5-point Likert Scale ranging from 1 (Never) to 5 (Very Often). For the part on suicidal ideation section, these items are: (1) I have no will to continue my life. (2) I feel like there is no reason for me to live. (3) It has crossed my mind to end my life when I am faced with a big problem. (4) I have once thought to end my life. (5) It has crossed my mind to end my life, but I am afraid to do so. The second part, suicide attempt section: (6) I have hurt myself for the purpose of ending my life. (7) I have tried certain methods to end my life. (8) I have tried to end my life but ceased to do so when I am reminded by something (loved ones, sins etc.) (9) I have tried to end my life, but it did not work. (10) I have attempted to end my life, but I actually did not want to die.

Attitudes Towards Suicide (ATTS)

The Attitudes Towards Suicide (ATTS) questionnaire was created by Salander Renberg and Jacobsson (2003) to create a workable tool that would allow attitudes toward suicide to be measured widely. The ATTS questionnaire originally had 61 questions with 11 domains but for this study, we only used 1 domain (Ability to understand and accept suicide) that contained six items. It used to score on a 5-point Likert scale, which ranges from 1 (Strongly Disagree) to 5 (Strongly Agree). These are the six items for the domain (Ability to understand and accept suicide): (1) Suicide is an acceptable means to terminate an incurable disease. (2) There may be situations where the only reasonable resolution is suicide. (3) I could say that I would take my life without actually meaning it. (4) Suicide can sometimes be a relief for those involved. (5) I would consider the possibility of taking my life if I were to suffer from a severe, incurable, disease. (6) People do have the right to take their own lives.

Procedure

The study was conducted in several steps. Initially, before distributing the survey questionnaires, the researchers meticulously cross-checked them to ensure clarity and avoid potential errors. After completing this thorough review, the team distributed 268 questionnaires using Google Forms to

participants, including friends and acquaintances who had been university students in Malaysia. Participants need to read and agree with all the conditions on the consent letter before participating in this study. On average, participants devoted 40-60 minutes to completing the questionnaire, reflecting their thoughtful engagement with the study. The data collected from participants were processed using statistical software, specifically IBM SPSS Statistic Version 29.0.

Data Analysis

For data analysis, we were using IBM SPSS Statistics version 29.0. to ensure the reliability of the Multidimensional Scale of Perceived Social Support (MSPSS), the Internal Consistency Cronbach's Alpha method was used. This method helps evaluate the consistency level in responses along the scale. Based on Tavakol and Dennick (2011), we aimed for a reliability score between 0.70 and 0.90, which was considered good. The convergent validity of the MSPSS was assessed through Pearson correlation with the Yatt Suicide Attitude Scale (YSAS), an instrument designed to measure Suicidal Ideation and Suicidal Attempts and The Attitudes Towards Suicide (ATTS), creating a workable tool that would allow attitudes toward suicide to be measured widely. We used Pearson's correlation for the convergent validity analysis to examine the relationship between our MSPSS scores and those YSAS and ATTS scores. Theoretically, these measurement tools should be positively correlated with each other. We aimed for a correlation coefficient (r-value) exceeding 0.40, which is in line with the recommendations of Schober and Schwarte (2018). We were looking for a positive correlation, a statistical connection in which a rise in one measure is associated with an increase in another and vice versa (Senthilnathan, 2019). This positive link is important to establish convergent validity and ensure that all our scales are aligned in measuring the same aspects of our study.

RESULTS

Reliability of the Malaysia version of the Multidimensional Scale of Perceived Social Support (MSPSS)

The reliability of Malaysia's version of the Multidimensional Scale of Perceived Social Support (MSPSS) was examined using the internal consistency Cronbach's alpha method. According to Hu and Bentler (1999), good internal consistency is indicated by a coefficient of more than 0.80, whereas acceptable internal consistency is indicated by a coefficient greater than 0.70. The result showed Cronbach's Alpha for the 3 dimensions of MSPSS. The constructs in the study ranged from .898 to .916 (refer to Table 1). All the dimensions showed that the reliability is high because it exceeded the recommended threshold of .0.6 in the social support by family dimension (alpha = .898), social support by friends' dimension (alpha = .903), and the dimension of social support by significant others (alpha = .916). Besides that, item analysis was conducted to improve our understanding of the reliability of MSPSS.

Table 1: Internal Consistency Cronbach's Alpha for the Multidimensional Scale of Perceived Social Support (MSPSS)

Dimensions	Items	Cronbach's Alpha
Social support by family	3, 4, 8, 11	.898
Social support from friends	6, 7, 9, 12	.903
Social support by a significant other	1, 2, 5, 10	.916

Item Analysis of the Malaysia version of the Multidimensional Scale of Perceived Social Support (MSPSS)

In the current study, item analysis was conducted using the item-total correlation method. The criterion for preliminary evaluation and purification is item-total correlation. In this study, we adopted cut-off points higher than 0.30, which is acceptable, as suggested by Cronbach (1951), as the minimum acceptable item-total correlation coefficient. In Table 2, the result showed that the item-total correlation coefficient of all the items of MSPSS was greater than 0.30, as suggested by Cronbach (1951), as the minimum acceptable item-total correlation. The result of Table 2 indicates that all the dimensions are suitable for application among students in Malaysia.

The inter-item correlation for the dimension of social support by family ranged from .632 to .704, from .661 to .732 (social support by friends' dimension), and from .699 to .753 (social support by significant others dimension). The correlation between the item scores and the overall test score and the correlation between these significant items show that the items for the three dimensions of the MSPSS are interrelated and measure the same construct. In summary, the overall and inter-item correlation analysis of the social support by family, friends, and significant other dimensions items are shown in Tables 2, 3, 4, and 5.

Table 2: Item Analysis of the Multidimensional Scale of Perceived Social Support (MSPSS)

Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Family Dimension		
MSPSS_3	.806	.861
MSPSS_4	.833	.846
MSPSS_8	.747	.885
MSPSS_11	.735	.883
Friends Dimension		
MSPSS_6	.793	.871
MSPSS_7	.773	.878
MSPSS_9	.792	.871
MSPSS_12	.774	.877
Significant Other Dimension		
MSPSS_1	.859	.874
MSPSS_2	.831	.884
MSPSS_5	.756	.909
MSPSS_10	.791	.898

Table 3: Inter-Item Analysis of the items in the Family Dimension of Multidimensional Scale of Perceived Social Support (MSPSS)

Item	MSPSS_3	MSPSS_4	MSPSS_8
MSPSS_3			
MSPSS_4	.799		
MSPSS_8	.651	.735	
MSPSS_11	.704	.688	.632

Table 4: Inter-Item Analysis of the items in the Friends Dimension of Multidimensional Scale of Perceived Social Support (MSPSS)

Item	MSPSS_6	MSPSS_7	MSPSS_9
MSPSS_6			
MSPSS_7	.732		
MSPSS_9	.730	.662	
MSPSS_12	.661	.689	.732

Table 5: Inter-Item Analysis of the items in the Significant Other Dimension of Multidimensional Scale of Perceived Social Support (MSPSS)

Item	MSPSS_1	MSPSS_2	MSPSS_5
MSPSS_1			
MSPSS_2	.855		
MSPSS_5	.704	.685	
MSPSS_10	.753	.712	.699

Convergent Validity of the Malaysia version of the Multidimensional Scale of Perceived Social Support (MSPSS)

In general, convergent validity is deemed sufficient if a correlation is greater than 0.50 with an instrument assessing the same construct (Abma *et al.*, 2016). Since the three dimensions of MSPSS measures evaluate the same construct—social support adequacy—they are expected to be significantly and positively correlated. The convergent validity of MSPSS is proven because the results of correlation analysis show that the three dimensions of MSPSS are positively and significantly correlated. The correlation coefficient between the three dimensions ranged from .477 to .528, with $p < .001$, which showed that it is significant.

Concurrent Validity of Malaysia version of the Multidimensional Scale of Perceived Social Support (MSPSS)

According to Portney (2020), correlation coefficients (r-value) with values less than 0.25 were regarded as minor, 0.25–0.50 as moderate, 0.50–0.75 as good, and > 0.75 as outstanding correlation coefficients. It is predicted that all three dimensions of MSPSS will correlate negatively and significantly with the dimensions of YSAS and ATTS. This analysis is based on the premise that individuals with good social support from family, friends, and significant others would have a negative attitude toward suicide.

The correlation coefficient between the social support by family dimension of MSPSS with the suicidal ideation and suicide attempt dimension of YSAS is $r = -.385, p < .001$ and $r = -.286, p < .001$ respectively, whereas the correlation coefficient between the social support of the family dimension of MSPSS and ATTS's dimension of the ability to understand and accept suicide is $r = -.320, p < .001$ (refer Table 6). For the social support by friends' dimension of MSPSS, its correlation coefficient with the suicidal ideation dimension of YSAS is $r = -.204, p < .001$, and with the suicide attempt dimension of YSAS, it is $r = -.127, p < .005$ (refer Table 6). Similarly, the correlation coefficient between the social support of the friends' dimension of MSPSS and ATTS's dimension of ability to understand and accept suicide is $r = -.148, p < .005$ (refer to Table 6). Lastly, the correlation coefficient between the social support by significant other dimension of MSPSS with the suicidal ideation and suicide attempt dimension of YSAS is $r = -.315, p < .001$ and $r = -.123, p < .005$ respectively, whereas the correlation coefficient between the social support of the significant other dimension of MSPSS and ATTS's dimension of the ability to understand and accept suicide is $r = -.243, p < .001$ (refer Table 6).

This shows that all three dimensions of MSPSS are negatively and significantly related to YSAS and ATTS scores. The result from Table 6 showed that the dimensions of MSPSS are negatively correlated with the dimensions of YSAS and ATTS, thus proving the concurrent validity.

Table 6: Matric Correlation between the dimensions of the Multidimensional Scale of Perceived Social Support (MSPSS), the dimensions of the Yatt Suicide Attitude Scale (YSAS) and the dimensions of the Attitudes Toward Suicide Scale (ATTS).

Dimension	Social Support by Family	Social support by Friends	Social support by a Significant other	Suicidal ideation	Suicide Attempt
Social support by family					
Social support from friends	.477**				
Social support by a significant other	.493**	.528**			
Suicidal ideation	-.385**	-.204**	-.315**		
Suicide attempt	-.286**	-.127*	-.123*	.696**	
Ability to understand and accept suicide	-.320**	-.148*	-.243**	.562**	.482**

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed)

DISCUSSION

The study demonstrates that the Multidimensional Scale of Perceived Social Support (MSPSS) is a reliable and valid instrument for assessing the relationship between perceived social support and suicidal behavior among university students in Malaysia. The reliability of the MSPSS was confirmed by the high Cronbach's Alpha coefficients, which exceeded 0.80 across its three dimensions: family, friends, and significant others. This indicates a strong internal consistency within each dimension, aligning with the standards of Cronbach (1951) for acceptable reliability. Additionally, item-total correlation coefficients for all items surpassed the 0.30 threshold, reinforcing the scale's internal reliability. The redundancy evaluation showed that removing any item from the MSPSS did not lower

Cronbach's Alpha below 0.80, further substantiating the scale's robustness and lack of redundancy (Tavakol & Dennick, 2011).

Convergent validity analysis demonstrated that the dimensions of the MSPSS (family, friends, and significant others) were positively and significantly correlated. This finding underscores that these sources collectively contribute to the social support system for university students in Malaysia. Family, friends, and significant others each play a critical role in providing social support. Family support is crucial as it often represents a primary source of guidance and wisdom, particularly valuable in life stressors (Alsubaie et al., 2019). In the Malaysian context, university students frequently rely on their parents, who offer practical advice and emotional support.

Friends also constitute a significant source of social support by providing material and psychological aid, which helps individuals manage stress and challenges (Cherry, 2023). Significant others offer instrumental and emotional support, which becomes especially vital during low points in an individual's life (Vaingankar *et al.*, 2020). The interconnectedness and support from these sources allow university students to navigate emotional difficulties and reduce feelings of isolation and hopelessness, which are crucial in mitigating suicidal ideation (Ibrahim *et al.*, 2019).

The study further established concurrent validity by demonstrating a significant and negative correlation between the MSPSS dimensions and measures of suicidal attitudes using the Yatt Suicide Attitude Scale (YSAS) and The Attitudes Towards Suicide (ATTS). This negative correlation implies that higher levels of perceived social support are associated with lower tendencies toward suicidal behavior. Thus, the MSPSS is not only a reliable tool but also one that is relevant and effective in the Malaysian context for gauging social support and its impact on suicidal behavior among university students. The instrument's applicability suggests it can be a valuable resource for identifying and supporting at-risk students, ultimately contributing to suicide prevention strategies.

CONCLUSION

This study underscores the robust reliability and validity of the Multidimensional Scale of Perceived Social Support (MSPSS) as a tool for measuring the relationship between perceived social support and suicidal behavior among university students in Malaysia. The high internal consistency of the MSPSS, as evidenced by Cronbach's Alpha coefficients above 0.80 for its dimensions (family, friends, and significant others), confirms that the instrument reliably captures the nuances of social support. The significant and positive inter-correlations among these dimensions highlight the integrative role that various support sources play in the students' lives. Moreover, the study reveals that family, friends, and significant others each provide distinct and essential forms of support, which collectively help mitigate feelings of loneliness, hopelessness, and depressive symptoms—key factors associated with suicidal ideation. The validation of these dimensions within the Malaysian context illustrates the relevance and applicability of the MSPSS for local populations. Convergent and concurrent validity analyses further strengthen the case for MSPSS as an effective measure, showing that higher perceived social support correlates with reduced suicidal tendencies. This negative correlation with measures of suicidal attitudes underscores the critical role of a strong support network in decreasing suicidal behavior among university students. Given these findings, the MSPSS emerges as a valuable instrument for identifying at-risk students and guiding interventions aimed at bolstering social support to prevent suicidal behavior. It offers a nuanced understanding of how different support sources contribute to the well-being of university students, providing a basis for developing targeted support strategies that can significantly improve student mental health outcomes. Consequently, the MSPSS proves to be a reliable and valid tool and a potentially impactful resource in the ongoing efforts to enhance the mental health and resilience of university students in Malaysia.

Informed Consent Statement

An informed consent form was attached to the front page of the questionnaire. Participants who provided informed consent answered the questionnaire.

Conflict of Interest

None

Ethics Statement

None

Author Contributions

Lynne Hsu Shi Xuan, Jodine Koay Rou Wenn, Jennie Liew Kah Nie, Nur Syafiqah Binti Elias, and Nur Alya Maisarah Binti Jayazino were involved in data collection and article writing, and Chua Bee Seok was involved in checking and editing the article.

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Data Availability Statement

None

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