The Influence of Peer Social Support Against Student Well-Being With Structural Equation Modeling (M-PLUS Software)

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ABSTRACT

Adolescents' well-being is very important especially in schools for the student's well-being. Therefore, this study aimed to investigate the effects of peer social support on the student well-being. This study was conducted on 114 (men, 40; women, 74) students from Madrasah Aliyah Negeri 2 Kampar. Participants consisted of 10th and 11th grade students identified by stratified proportional random sampling technique. Peer social support and student well-being scales are used for data collection. Structural equation modeling is used to analyze the effects of peer social support and student well-being using M-PLUS software version 7.4. Results of this study showed an estimated coefficient value of 3.248 (t> 1.96, p= 0.001), indicating a significant positive influence between peer social support and student well-being. The estimated value indicated by the type of emotional support provides the coefficient that greatly influenced the student well-being, whereas the type of information provides the lowest coefficient. This study revealed that peer social support can be one of the school's strategies in improving the student well-being because having a good peer social support can help students achieve high student well-being.

Keywords: Student Well-Being, Peer Social Support, Structural Equation Modeling.

1. INTRODUCTION

Well-being is associated with a general concept, i.e., comfort. For children and adolescents, schools represent most domains in their lives, as they spend more time in schools that play as institutional providers and an ever-growing environment. Therefore, students' experiences in schools are like experiences with important implications for their lives that have an impact on the student well-being (Park, 2004).

Student well-being is a condition where a student has an effective role in his school community (Fraillon, 2004). According to Noble, McGrath, Roffey, and Rowling (2008), high student well-being is associated with increased academic results, school attendance, prosocial behavior, school safety, and mental health. Besides that, students with high well-being are also marked by having openness in making friendships, inviting their friends to talk, joke, smile, and spread a positive aura. This condition will influence other students to make friends with each other, answer each chat, joke, and laugh together. Therefore, each student feels to have a good friendship and accepted in their environment. When a student feels he has a good friendship and feels accepted in his environment, he will have a better feeling at school, happier, and happy to be in his school.

However, in reality, adolescents or students who are sitting on school benches in Indonesia do not meet the criteria of students with high student well-being. Many students still have low well-being, the phenomena and problems experienced by students in Indonesia. Problems with these students were among those discovered by Josef and Hidayat (Wati, 2016) who investigated 1,200 teenage students in Indonesia. Josef and Hidayat found that 4.6% of respondents experienced acute dissatisfaction with schools, 65% experienced psychosocial and mental health problems at a moderate level, and 12% (1 of 8 students) experienced physical attacks intentionally investigated by other students. Based on a pre-research and preliminary data collection conducted on Wednesday, December 19, 2018, at Madrasah Aliyah Negeri (MAN) 2 Kampar, the MAN 2 Kampar School had several lists of books relating to student activities. In the daily attendance book, students found an increased daily absenteeism due to various reasons and omissions. The number of students who were absent from July to November 2018 students increased up to 86% and students who were absent with information increased by 78%. The phenomenon of late students is also higher in Madrasah Aliyah Negeri (MAN) 2 Kampar that recorded the late attendance book of students, indicating that their well-being is marked by autonomy or their independence in students remains low because late students do not obey the rules or values that apply in schools who arrived on time. The special book also records the number of offenses such as absent without notification, being late, smoking, and bringing mobile phones to school. Moreover, four male students were caught not praying in the congregation, six were caught smoking cigarettes, and some played truant with their friends.

As adolescents, a friend is defined as a member or part of a team that works together to solve problems (Cotterell, 1996; Feldman & Elliot, 1993). Teenagers making friendships provide tangible assistance in the form of advice other than those provided by their parents (Dolan in Wanda, 2016). This is in line with Ramdhana's statement (Suratman, 2013) that adolescents are more able to share and express personal information with their peers. Social support from peers is one of the important supports needed by adolescents during their developmental period (Duncan et al., In Robbins et al., 2008).

Being accepted by peers in the classroom or school is important, because teenagers spend a lot of time in schools to be surrounded by and involved with their peers. According to Keyes and Waterman (2008), one of the factors that influence the well-being and adapted in the school context is social relations. A close relationship with family, friends, or significant others plays a very important role for the happiness and quality in life according to Myers (Keyes & Waterman, 2008).

When a student feels he or she has a good friendship and feels accepted in the environment, they will feel better at school and happier and happy to be in his school (Wijayanti, 2018). If most students feel they have high well-being, then they will more often open friendships with other friends, and those who are invited to be friends will feel accepted by their environment; therefore, it will affect other students' well-being. This is similar with Wentzel, Barry, and Caldwell (2005); Thomson, Schonert-Reichl, and Oberle (2015); and Oberle and Schonert-Reichl

(2013)'s studies who reported that peers plays an important role during the developmental stage in early adolescence, because this was related to adolescents' well-being, resilience, and success in- and outside school.

This study aimed to look at the effects of peer social support toward the high school students' well-being in Kampar, Riau. This study hypothesizes that the peer social support positively influences the student well-being.

1.1. Student well-being

Student well-being is defined as the extent a student functions effectively in the school community, a unitary group aiming to share the school center (Fraillon, 2004). There are two factors that influence adolescent well-being according to Diener (2009), namely, internal factors including personality and temperament, optimism, forgiveness, and gender, and external factors such as social support of peers and teachers, parents, school environment, and family also affect the subjective well-being and school connectedness. Therefore, student well-being is a condition where students feel comfortable at school, feel satisfied with themselves or relate to others, show emotional responses consistent in accordance with events students experience and absence of negative conditions such as depression, anxiety, and deviant behavior and student involvement in the school community.

1.2. Peer social support

Sarafino and Smith (2011) argued that social support is defined as pleasure, attention, appreciation, or assistance felt from other people or groups. According to Cobb (Sarafino and Smith, 2011), someone who gets social support believes

that they are loved and cared for, valuable, become part of social networks, such as family and community organizations, which can equip goodness, service, and sustain each other when needed. In adolescence, peer groups have a very important role for adolescent developments both emotionally and socially.

According to Sarafino and Smith (2011), social support is observed from individual feelings of pleasure, appreciation due to caring, or helping individuals in receiving from other people or groups. Cohen and Syne (1985) suggested that several factors influenced the effectiveness of peer support, namely, the provision, type, and acceptance of support, problems encountered, and time and length of support.

2. METHODS

2.1. Sample

Participants in this study were 114 students from 10th and 11th grades of Madrasah Aliyah Negeri (MAN) 2 Kampar School, which consisted of 64% female and 36% male students. In this study, the sample was determined using the proportionate stratified random sampling technique because the sample used in this study is based on strata or groups consisting of different levels, so that each grade level has the same opportunity to be the study subject. Based on the sampling technique, this study required 54 10th grade and 60 11th grade students.

2.2. Research Design

This study is the correlational type, with a quantitative research design. Data analysis was performed for data processing in this

study using the structural equation modeling (SEM) statistical analysis techniques. SEM is a collection of statistical techniques that lead to the relationship between one or more independent variables, continuous or discrete, and one or more dependent variables examined. The obtained data will be analyzed using the M-PLUS software version 7.4.

2.3. Instrument and Measurement

Data collection techniques used in this study are instruments in the form of two scales, as used in this study: peer social support and student well-being scale developed by researchers based on this theory. Student well-being scale is arranged based on Fraillon concept, consisting of two dimensions: intra- and interpersonal.

The intrapersonal dimension includes autonomy, emotional regulation, resilience, self-esteem, spirituality, curiosity, engagement, assignment orientation, and resilience, whereas the interpersonal dimension includes communicative communication, empathy, acceptance, and connectedness. The student well-being scale consists of 52 items. After being tested, 38 were valid items and 14 were dead items with reliability (alpha) of 0.902.

Meanwhile, the peer social support scale refers to aspects and theories of peer social support from Sarafino and Smith (2011). The peer social support scale included emotional, appreciation, instrumental, information, and social

network supports, including 36 items. After being tested, 33 valid and 3 deciduous items were identified with reliability (alpha) of 0.924.

2.4. Procedure

During data collection, researchers enter every selected classroom and brief the students about this research and asked students for willingness to participate in this study. Then, researchers gave a scale for each student assisted by the teacher and class leaders from each respondent. In filling the scale, no answers are considered wrong; thus, all answers are accepted, according to the subject's self-evaluation. Of these two scales given to respondents, all were returned in full by the respondent. Every instrument has been checked to ensure that they fill every question and personal information. Their identity is anonymized, and only the name initial is written. One ballpoint is given as a reward to every student's in order to participate in this study.

3. RESULTS

This study was conducted with the aim to determine the influence of peer social support and student well-being on students at Madrasah Aliyah Negeri (MAN) 2 Kampar. Study participants included 114 (36% male, 64% female) from 10th and 11th grades. The participant consisted of 65 students (56.5%) majoring in science and 49 students (42.6%) majoring in social science. Their age ranged from 15 to 19 years.

Table I. Score Categorization Student well-being and Peer social support

Variables	Low (%)	Medium (%)	High (%)
Student well-being	28 (24,6)	69 (60,5)	17 (14,9)

Peer social support	21	72	21
	(18,4)	(63,2)	(18,4)

Table I presents information on descriptive statistics of student well-being variable that tends to be in the medium category; therefore, most participants can be concluded to have medium well-being. For peer social support, variables tend to be in the medium category; therefore, they can be concluded to have medium peer social support.

Data analysis in this study uses SEM statistical techniques. The first stage is defined as the measurement model test that is validated using confirmatory factor analysis on the entire measuring instrument and variable contracts by looking at Chi-square test results to determine the goodness of fit of the research model. Then, the second stage is to test the structural model to determine the causality model between variables by determining t arithmetic compared with z arithmetic with alpha 5%, so that the model is considered significant if the t statistic value >t-table of 1.96.

The measurement model analysis using the R-square test concluded that the z-value of 1.995 >1.96, indicating that the resulting model was goodness of fit. Then, the RMSEA criteria produce a value of 0.0000 <0.08, indicating that the resulting model has goodness of fit, and other criteria such as CFI and TLI produce a >0.9 value, indicating that the resulting model has goodness of fit. As the chi-square criterion produces 0.0350 and the SRMR criterion produces 0.000, the goodness of fit index on the SEM model statistics is shown in Table II.

Tabel II. Goodness of Fit index on the

Good Fit	*Marginal Fit*	*Score Research*	*Result*
$0 \leq \chi2/df \leq 2$	$2 \leq \chi2/df \leq 3$	2,397	*Marginal Fit*
$0 \leq$ RMSEA ≤ 0.05	$0.05 \leq$ RMSEA ≤ 0.08	0,000	*Good Fit*
$0.97 \leq$ CFI ≤ 1.00	$0.97 \leq$ CFI ≤ 0.97	1,000	*Good Fit*
$0.97 \leq$ TLI ≤ 1.00	$0.97 \leq$ TLI ≤ 0.97	1,000	*Good Fit*
$0 \leq$ SRMR ≤ 0.05	$0.05 <$ SRMR ≤ 0.7	0,000	*Good Fit*

After analyzing the fit model fit of research data, results are obtained in the form of a path diagram that shows the estimated value of each variable. Each arrow shows the relationship and influence between peer social support variables on student well-being and between each peer social support dimension on student well-being. The path diagram can be observed in Figure 1.
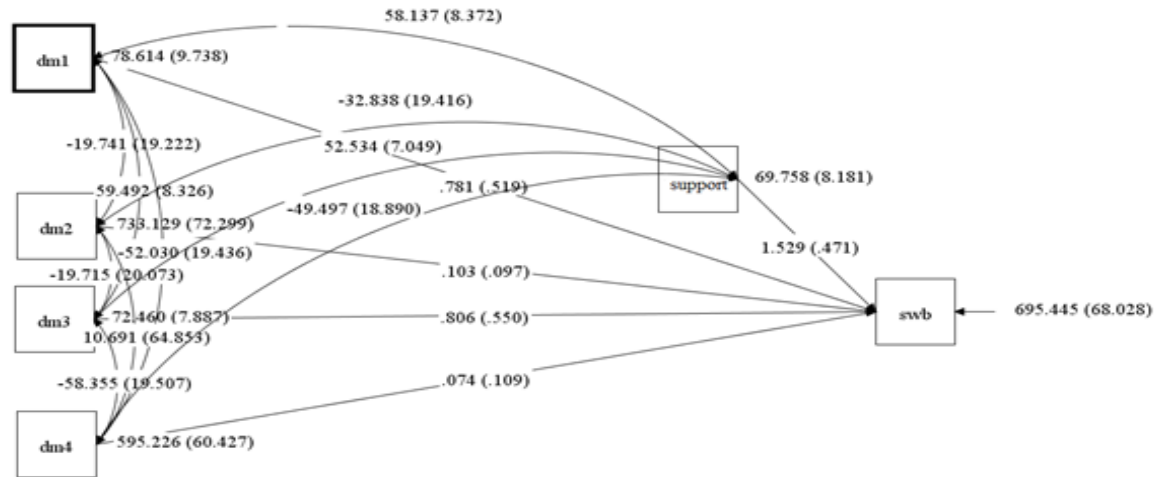
Figure 1. Path Diagram Measurement Model Analysis Results DM1, emotional support; DM2, esteem support; DM3, instrument support; DM4, information support; swb, student well-being; support, peer social support

Path analysis is based on a scheme that has been arranged in a theoretical framework. Results on the structural model analysis are obtained and shown in Table III:

Table III. Structural Regression Estimation Results

Path	*Estimate*	**S.E.**	**|t-hit| > 1,96**	**Conclusion**
Support on SWB	1,529	0,471	3,248	Significant

Peer social support has a significant influence on student well-being, where processing results show a statistical value of <3,248 (t-table 1.96), indicating a significant influence of peer social support on student well-being and results of the estimated coefficient of 1.529. This indicates their influence and positive relationship; therefore, the higher the peer social support, the higher the student well-being, and vice versa the lower the peer social support, the lower the student well-being (Table IV).

Table IV. R-Square Estimation Results

Path	*Estimate*	**S. E**	**Est./S. E** (*z-value*)	*p-value*
Support on SWB	0,101	0,051	1,995	0,046

In Table IV, an estimated value of 0.101 is obtained, meaning that the variance of student well-being that can be explained by social support of peers is 10.1% and the remaining 89.9% is determined by other factors. Then R-square results show a significance value of z-value of 1.995 (>1.96), indicating that peer social support significantly influences student well-being.

Structural model analysis between each type of peer social support, such as emotional, esteem, instrument, and information support for student well-being can be seen in Table V.

Table V. Estimation Result

Path	Estimate	S.E.	|t-hit| > 1,96
DM1 → SWB	0,781	0,519	1,505
DM2 → SWB	0,103	0,097	1,057
DM3 → SWB	0,806	0,550	1,466
DM4 → SWB	0,074	0,109	0,689

Exp. DM1=Emotional Support, DM2=Esteem Support, DM3= Instrument Support, DM4 = Information Support, SWB = Student Well-Being.

4. DISCUSSION

Results showed that peer social support had an influence on student well-being in MAN 2 Kampar school. Based on the analysis results of the structural model tests with M-PLUS software, this study showed a positive influence between peer social support and student well-being in MAN 2 Kampar students, indicating that the higher the peer social support, the higher the student well-being felt by MAN 2 Kampar students, whereas the lower the peer social support, the lower the student well-being was perceived by MAN 2 Kampar students.

These results prove that peer social support to students, such as affection, advice, or direct assistance plays a role in making students feel valued, loved, and cared for by other groups of students that can influence the student well-being and minimize negative conditions and deviant behaviors. Similarly. Brunstein's (1993) study found that social support, in particular, has been regarded as a major facilitator of well-being outcomes in influencing and reducing negative impacts associated with adverse life events.

These results showed that a positive influence of peer social support with student well-being is also supported the Breslin's study (2007), showing that support from family, friends, and school and physical activity can increase student well-being. The influence of peer social support on student well-being is also evidenced by peer social support variables on student well-being, i.e., 10.1%, whereas the remaining 89.9% is influenced by other factors. Individuals with high social support can expect someone they know to help them, such as by lending money or giving advice on how to get it. People with a little social support are far less likely to have all these advantages; therefore, the negative impact of their pressure is greater. Based on the structural model analysis, a regression analysis is conducted between each type of peer social support, such as emotional, appreciation, instrument, and information support for student well-being. These obtained results indicate that the type of emotional support with a value of 1.505 (<1.96 t-table) does not have a significant effect on student well-being. Then, the type of esteem support with a value of 1.057 (<1.96 t-table) showed no significant effect on student well-being, and the type of instrumental support with a value of 1.466 (<1.96 t-table) and the type of information support with a value of 0.689 (>1.96 t-table) did not have a significant effect on student well-being.

This shows that each type of peer social support does not affect student well-being separately but jointly to obtain the significance of all types of support into one variable peer social support with a

significance of 3,248 (<t-table 1.96). Therefore, between the types of peer social support, each type is a single entity that cannot stand alone because they are significant together.

Based on the analysis between student well-being and other types of peer social support, the analysis results show that the type of emotional support provides the greatest significance among other supports, indicating that students have more support in the form of feelings of empathy, care, and attention and comfort have. In other words, students get emotional or psychological support from their friends so that it has a significant impact on students, especially for their well-being. This is consistent with Dariyo's research results (2015), demonstrating that peer groups play a very important role both emotionally or socially, a form of emotional bonding between individuals with other individuals in the social community as actualization for adolescents in an effort to meet the needs of affiliation with others.

Lent (2004) suggested that social support can help emotional recovery through emotional support so that it indirectly reinforces effective coping, especially when used for approaches rather than avoiding problems to increase well-being. Then, the lowest peer social support providing significance to student well-being is information support, indicating that students feel they are not getting enough information from a reliable source or in the form of providing feedback on something they have done. In other words, students who feel they are getting information from people they can trust will feel calm because they get advice, direction, or feedback, which sufficiently influenced their well-being.

Students have relatively good peer social support and well-being. Although there are still a large proportion of students who have low peer social support and well-being, those with good peer social support will have positive feelings, such as feeling comfortable, calm, valued, and loved even in difficult situations, which helped them achieve well-being. Results of this study also showed that although many students in the school were often absent and late and even committed other violations that showed one sign of low well-being, majority of students had sufficient well-being.

This can happen because the peer social support affects student well-being, one of which is the most emotional support received by students. According to the pre-research results, students who committed violations such as smoking and being late did not do the violation alone but together with friends, such as playing truant. Moreover, three students were caught by the teacher smoking inside the school premises. This shows that social support from his friends in the form of emotional support makes students feel comfortable with the emotional bond between them, which indirectly strengthens effective improvement of their well-being. This study has several limitations. As the theories used in this study are very limited, researchers have a little difficulty to discuss more deeply about the variables studied. The advantage of this research is that it can prove that peer social support is one of the factors that can influence student well-being despite the lack of previous research findings found by researchers.

5. CONCLUSIONS

The hypothesis in this study is accepted. Results show that peer social support positively and significantly

influenced the student well-being. That is, the better the peer social support students have, the better the student well-being is.

The contribution of social peer support variables to student well-being is 10.1%, whereas the remaining 89.9% is again influenced by other factors or variables.

The emotional support dimension provides greatest significance in influencing the student well-being. Meanwhile, the dimension of information support provides the lowest significance value in influencing student well-being.

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