



Overview of psychological well-being of college students in Malang City: Wright map Rasch Model

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Abstract. This study aims to measure the level of psychological well-being of students in Malang City. This research emerged due to the phenomenon of suicide attempts committed by students in the past two years. The categorization of the level of psychological well-being is differentiated based on male and female gender. The participants used in this study were 144 students. The data in this study were obtained through the Ryff psychological well-being scale and analyzed using Rasch modeling based on the Wright map. The results of this study show that the level of psychological well-being of female and male students with three categories (low, medium, high) the majority is in the medium category. When viewed in more detail, psychological well-being in the high category in female students is more than men.

Keywords: Rasch Analysis, Psychological Well-being, Wright Map.

1. Introduction

Malang City is one of the cities that is an option for continuing education in college. Mentioned from the data of Malang Times, there are 5 (five) state universities and there are 57 private universities. The number of universities also triggers the number of students in Malang city. However, several problems occurred such as the attempted suicide of a student on May 28, 2023 as reported in "Tugu Malang" [1]. An attempted suicide committed by a student on Tuesday, September 20, 2022 as reported from "Suara Malang.id" [2]. These cases of attempted suicide provide an indication of psychological unwellness in individuals. Psychological problems are closely related to a person's psychological well-being. Mental well-being or psychological well-being is a condition where a person avoids stress and problems related to mental health [3]. As stated by Ryff [4], someone who experiences low psychological well-being is prone to anxiety, depression and other psychological problems. Although each person will certainly have a different level of well-being from the others. Like the research conducted by Rohma and Syah [5] young women or late adolescents who marry at a young age tend to have good psychological well-being. The existence of psychological well-being is of course followed by several factors including age, gender, education status, occupation, and employment status, and others. One of the factors is parenting [6]. There is a significant relationship between father involvement in parenting and other variables, namely gender ideology, psychological well-being, and father-child

time. A father who has high psychological well-being will be more involved in the care of his children.

There are also differences in gender as research [7]. Psychological well-being in single men between one another is different, and this is influenced by internal and external factors from each dimension of psychological well-being. The process of self-acceptance with single status, socioeconomic status, and good relationships and social support can affect the level of psychological well-being of single men. Matud et al. [8] found men scored higher than women in self-acceptance and autonomy, and women scored higher than men in personal growth and positive relationships with others. The most relevant variable in women's and men's psychological well-being was high masculinity. Other relevant variables in women's well-being were high femininity, not having a menial job, not being a housewife, and professional occupation. Men's well-being was also higher in professional men and men with skilled non-manual jobs, men with high femininity and men who were not single, divorced or widowed. This means that adherence to traditional gender roles is relevant to the psychological well-being of women and men, and women and men whose self-concepts include masculine-instrumental and feminine-expressive characteristics have greater well-being. [9] found in their study that men scored higher on physical self-concept, automatic (positive) thinking, constructive thinking, cognitive flexibility, total self-concept, and fortitude. Women scored higher on expression of affect, somatic symptoms, and religious well-being. No significant gender differences were found in sense of coherence, satisfaction with life, affect balance, emotional intelligence, self-efficacy, and social components of self-concept and fortitude. The results are in line with gender stereotypes and traditional socialization practices and may reflect the impact of long-standing social inequalities between men and women.

With regard to the above conditions, the researcher used the Rasch method in conducting the analysis to get an overview of psychological well-being. Research on the description of psychological well-being using Rasch modeling was conducted by Kurniawan [10] which provides an overview of the psychological well-being of Islamic psychology students using Rasch modeling. The results show that most Islamic psychology students have a high level of psychological well-being as seen from the high logit value of participants compared to the logit value of items for all dimensions.

Other research on the Rasch method was conducted by Bohori and Liliawati [11] who analyzed the mastery of the concept of effort and energy material in vocational students using Rasch modeling based on logit values. The results show that Rasch modeling is able to analyze students' concept mastery abilities well. [12] described the mathematical disposition profile of mathematics education study program students at one of the universities in Riau using Rasch modeling. The data obtained were analyzed based on person and item maps (wright map), resulting in three categorizations of student mathematical disposition. [13] elaborated the interaction between students' metacognitive awareness and the difficulty level of items on the measuring instrument using Rasch modeling. The analysis results obtained from the wright map to determine the categorization of student ability levels and item difficulty levels. [14] measuring the level of resilience of post-disaster students in West Sumatra high schools using Rasch

modeling. Determination of three categorizations (high, medium, low) based on the instrument information function image of the measuring instrument. Studies [15], [16] analyzed measuring instruments using Rasch modeling.

The various studies above inspired researchers to conduct research on Rasch modeling. If previously discussed psychological well-being with Rasch modeling, but the results did not show a picture between the results of men and women. So that in this study will be analyzed more deeply in each gender and the overall data of research participants.

2. Method

The variable in this study is psychological well-being. Psychological wellbeing is a state in which a person is able to appreciate himself positively including awareness to accept himself, able to establish and maintain good and warm relationships with others, able to create an environment so that he is able to satisfy his needs and desires, be independent, have life goals and be able to grow. Ryff explains Psychological Well-Being (PWB) as a psychological concept that describes individual functioning through self-acceptance, having life goals, having independence, having positive relationships with others, being able to master the environment, and having personal growth).[17]

The participants in this study amounted to 144 students in Malang city consisting of 84 female students and 60 male students. The sampling technique was used in data collection, where students in Malang city filled in online through google form. All data were inputted into Microsoft Excel and then analyzed using Rasch modeling with WINSTEPS software version 3.73.

This study used a quantitative cross-sectional method. The instrument used is the psychological well-being scale from Ryff with 42 items, but in this study researchers chose 12 items that represent the dimensions in psychological well-being. Ryff and Singer (1996) said that there are six dimensions of psychological well-being consisting of psychological well-being consisting of autonomy, mastery of the environment, life goals, positive relationships with others, personal growth and self-acceptance. So from each dimension, researchers chose 2 items each

3. Result

3.1 Instrument Validity and Reliability Estimate

Table 1 Summary Statistics of Person and Item

| Psychometric Properties | Person | Item |
|-------------------------|--------|------|
| N | 144 | 12 |
| Outfit Mean Square | | |
| Mean | 1.02 | 1 |
| SD | -0.3 | 0.00 |

| | | |
|-----------------------------------|------|------|
| Separation | 1.11 | 4.16 |
| Reliability | 0.55 | 0.96 |
| Cronbach Alpha | 0.64 | |
| Raw Variance explained by measure | 30 % | |

The person reliability value seen in the table has a value of 0.55 where this value is still less than the standard, this indicates that the consistency of answers from participants is still not good. While the reliability value of the item itself is 0.96, this indicates that the quality of the items of the scale is very good. In addition, reliability can also be seen from the Cronbach Alpha value, which is 0.6, this shows that the reliability of the measuring instrument is generally good. In addition, with regard to the quality of the separation value, the separation value of the person and the item seen in the table is below 2. Meanwhile, the dimensionality test value is 30%.

3.2 Data Categorization

Figure 1 is a psychological well-being wright map of 84 female participants who answered 12 psychological well-being scale items. Seen in Figure 1, there are 11 (13.2%) students whose psychological well-being level is high, (78.5%) students at a moderate level, and 7 (8.3%) students whose level is low. Whereas psychological well-being Wright map of 60 male participants who answered 12 psychological well-being scale items. Similar to the level of female students, it can be seen in Figure 1 that there are 2 (3.3%) students at a high level, 57 (95%) students at a moderate level, and 1 (1.7%) student at a low level. In each figure, it can also be seen that the majority of psychological well-being levels of men and women are at a moderate level. However, at a high level, there are more female students than male students.



Fig 1. Wright Map of Students Psychological Well-being Based On Gender

4. Discussion

This study aims to measure the level of psychological well-being of students in Malang City. Before discussing the level of measuring the level of psychological well-being of students in Malang City, researchers will discuss the quality of the items from the psychological wellbeing scale. Based on the results of the analysis that has been carried out, it is found that the quality of items and participants can be seen from the separation value. Based on the criteria for the separation value of person and item according to Fisher [18] the separation value of the person and item seen in the table shows that the quality of the participants is still lacking because the value is below 2 while the quality of the item is very good because the value is between 4 and 5. Based on the value of the uni dimensionality test, which is 30%, this value is below the criteria of 40%. [18] then the items on the psychological well-being scale can adequately measure participants' perceptions.

Meanwhile, the test results regarding the level of psychological wellbeing in students as a whole are in the high, medium and low categories. Both in students with male or female gender. This data shows that the psychological well-being of students in Malang city still varies, some are in the high, medium and low categories. Students who have psychological well-being in the high category will be able to accept their condition well, and be able to be independent in completing their duties as a student. In addition, in social relationships, they can also establish positive relationships. As stated by Ryff that someone who has good psychological well-being will be able to manage life, develop themselves, relate positively to others and be able to accept their condition. Therefore, someone with high psychological well-being will avoid psychological problems such as anxiety, feelings of depression or other psychological problems that can hinder their mental health. With regard to this, the data also shows that there are still male and female students who are in the low category. So it is possible that there will be students who still have psychological problems, especially for those who have psychological well-being in the low category. They will find it difficult to direct themselves in their studies, organize life in their environment, and have difficulty relating and determining life goals.

The data also shows that there is a difference in percentage in the high category. In the female gender, the data shows that the high category is mostly owned by women, namely 13.2%. While in men only around 3.3%. This is in accordance with the opinion of [19] that psychological well-being is influenced by gender. The results of his research show that women have psychological well-being more than men. In this study, the higher meaning is indicated by the number of women who have more psychological well-being than men. Because the majority of male participants were in the moderate category. With regard to this, matud in his research found that psychological well-being was found to be higher in men with professional jobs and in men who were not single, divorced or widowed. In this case, students are in a situation that does not yet have a professional job and are still not in a marriage. If it is related to the results of this study, male students with high welfare scores are still lower than women, because they are still in a situation that has not yet worked professionally and are not yet in a marriage. Other results from this study also found that men scored higher than women in self-acceptance and autonomy, and women scored higher than men in personal growth and positive relationships with others. Therefore, for female students,

independence is not the main thing, but rather personal growth and positive relationships with others.

5. Conclusion

The conclusion in this study is that psychological health in students in Malang city is in the high, medium and low categories. In the female gender, the high category is greater than male students. The majority of male students were found to be in the moderate category. There are still students with psychological well-being who are in the low category who are vulnerable to experiencing psychological problems.

6. Statement and Declarations

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