Exploring the Relationship Between Self-Esteem and Well-Being Among Students at a Japanese University

Jonathan CHERRY

日本の大学生における自尊心とウェルビーイングの関連性の検討

ジョナサン　チェリー

【Keywords】University students, Self-esteem, Well-being, Rosenberg Self-Esteem Scale, Warwick-Edinburgh Mental Wellbeing Scale

Abstract

This research investigates the relationship between self-esteem and well-being among university students at a Japanese university, using two established scales: the Rosenberg Self-Esteem Scale (RSES) and the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). The primary objectives are to explore the correlation between self-esteem and well-being and to examine how demographic factors such as gender and academic year influence these variables.

Hypotheses:

H１：There is a positive correlation between self-esteem and well-being in university students.

H２：Male students will report higher self-esteem and well-being than female students.

H３：Students in later academic stages will report higher self-esteem and well-being compared to students in earlier stages.

A sample of 27 university students voluntarily completed the RSES and WEMWBS surveys. To analyze the data, descriptive statistics and Pearson correlation were used to explore relationships between self-esteem, well-being, and student demographics. These methods helped the author to understand how factors such as gender and academic year influence students' self-esteem and well-being. The findings from this study indicate that higher self-esteem is associated with better perceived well-being. Additionally, demographic factors like gender and academic year play a crucial role, with males and students in later academic stages generally reporting higher scores. The author hopes these results can serve as a guide to help support students' overall mental well-being during and after tertiary education.

1．Introduction

1．1　Why This Research Matters

Whilst both the "Rosenberg Self-Esteem Scale (RSES)" and the "Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)" have been used extensively worldwide to explore self-esteem and assess mental well-being, there is a noticeable lack of research applying both instruments specifically to Japanese university students. This study aims to help fill that gap by providing insight into the relationship between self-esteem and mental well-being within this population. Recent government findings underscore the urgent need for such research. According to the "2024 White Paper on Suicide Prevention" by Japan's Ministry of Health, Labour and Welfare (MHLW) (Ministry of Health, Labour and Welfare, 2024), the number of suicides among elementary, junior high, and high school students in 2023 was 513, matching the record high from 2022. Although the report does not specify the number of university student suicides for 2023, this figure highlights a persistent and alarming trend in youth mental health. The paper identifies key causes and motives for youth suicides, including: family relationship discord, academic failure, bullying, mental illness (including depression), and concerns about future paths and careers. These stressors, especially when coupled with more academic and societal pressures at tertiary education, suggest a deep need to understand and support student well-being whilst at university. Research has also shown that low self-esteem is a significant risk factor for suicidal thinking. For example, a study by Mitsui et al. (2014) found that among Japanese university students with major depressive episodes, lower self-esteem and impaired social functioning were closely associated with increased suicide risk. This evidence highlights the importance of examining self-esteem as part of broader mental health assessments in university populations. In earlier reports, suicide was found to be the leading cause of death among university students, with an overall suicide rate of 26.0 per 100,000 Japanese university students in 2017 (Uchida, 2017). By using validated tools like RSES and WEMWBS in a Japanese university context, this research aims to contribute meaningful data that can inform both institutions and educators in order to support students.

1．2　Self-Esteem and Well-Being

Self-esteem has been defined in various ways over time. Adler (1930) emphasized that self-esteem develops as individuals overcome feelings of inferiority and cultivate social connectedness, suggesting that genuine self-worth is achieved not in isolation but through contribution to and belonging within one's community.

Rosenberg (1965) described it as "the evaluation which the individual makes and customarily maintains with regard to himself or herself: it expresses an attitude of approval or disapproval toward oneself." Nathaniel Branden (1994) saw it more in terms of ability and defined self-esteem as "the disposition to experience oneself as competent to cope with the basic challenges of life and as worthy of happiness."

Mann et al. (2004) argued that higher self-esteem plays a critical role in both mental and social well-being, influencing aspirations, goals, health, and social behavior. Other studies have linked higher self-esteem to greater resilience to stress, more positive social relationships (Marshall et al., 2014), and improved academic performance (Rosenberg & Owens, 2001). Interestingly, Pullmann, H. (2008) found that although academic self-esteem is a strong predictor for academic achievement, low general self-esteem—rather than high—was also associated with superior academic outcomes. This suggests academically successful students often hold a more critical view of themselves, whereas students with modest academic abilities may inflate their self-esteem to buffer against underper formance.

Well-being, similarly, is complex with multiple definitions over the years. The World Health Organization (2004) defines well-being as a state in which individuals "realize their own abilities, can cope with the normal stresses of life, can work productively, and are able to contribute to their community." Dodge et al. (2012) propose that well-being is "the balance between an individual's resources and the challenges they face," emphasizing the dynamic nature of mental health.

For students, well-being has been linked with how well they adjust to university life, how resilient they are, and how motivated they feel. Karademas (2007) showed that well-being can act as a resource that helps students buffer against the impact of stress. Keyes and Annas (2009) report that "flourishing" students show better mental health as well as better engagement and persistence in their studies compared to that of "languishing" students. Other research adds that well-being supports a sense of belonging, helps students manage academic stress, and lowers the risk of dropping out (Tennant et al., 2007; Universities UK, 2015).

Better well-being has been linked to improved mental health, greater productivity, and overall quality of life (Diener, 2009), as well as better management of academic stress and increased student motivation (Grant et al., 2009). These findings underline the importance of understanding and supporting both self-esteem and well-being in the university student population.

2．Participants

Twenty-seven students at Musashino Gakuin University participated in the study. Participants were approached randomly and asked if they would voluntarily complete two anonymous surveys. Informed consent was obtained prior to participation. Demographic data collected included age, gender, and academic year.

3．Instruments

This study used two widely validated self-report instruments: the Rosenberg Self-Esteem Scale (RSES) and the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). The Rosenberg Self-Esteem Scale, developed by Rosenberg (1965), consists of 10 items

designed to measure global self-worth by assessing both positive and negative feelings about the self. Participants respond using a 4-point Likert scale ranging from "strongly agree" to "strongly disagree," with total scores ranging from 0 to 30. Higher scores indicate higher levels of self-esteem (Table 1). The RSES has been used extensively across cultural contexts and has demonstrated strong internal consistency and reliability in previous studies, typically reporting Cronbach's alpha values of .77 to .88.

Table 1 : Rosenberg Self-Esteem Scale (RSES) Score Interpretation

Score Range	*Interpretation*
0-14	Low Self-Esteem
15-25	Moderate Self-Esteem
26-30	High Self-Esteem

Note. Higher scores indicate greater self-esteem.

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) is a 14-item scale designed to measure positive mental well-being by assessing psychological functioning, life satisfaction, and emotional well-being (Tennant et al., 2007). All items are positively worded and scored on a 5-point Likert scale from "none of the time" to "all of the time," producing a total score between 14 and 70. Higher scores indicate greater well-being. Items include statements such as: "I've been feeling positive about the future," "I've been thinking clearly," and "I've been interested in new things." The WEMWBS captures both emotional well-being and a sense of purpose, and is suitable for use with general populations, including students. Research has shown that the scale is highly reliable, with Cronbach's alpha values typically exceeding .90 (Table 2).

Table 2: Warwick-Edinburgh Mental Well-being Scale (WEMWBS) Score Interpretation

Score Range	*Interpretation*
14-41	Low Mental Well-Being
42-59	Moderate Mental Well-Being
60-70	High Mental Well-Being

Note. Based on WEMWBS scoring guidelines. Higher scores indicate more positive mental well-being.

4．Procedure

Participants were approached on campus and invited to participate in the study by scanning a QR code displayed on small, printed cards. The QR code then directed them to a Google Classroom page where the surveys were hosted. After reading a brief explanation of the study and providing informed consent, students accessed and completed the questionnaires on their smartphones, while seated outdoors on the university campus.

The survey included the Rosenberg Self-Esteem Scale (RSES) and the Warwick-Edinburgh Mental Well-being Scale (WEMWBS), as well as demographic questions (age, gender, and academic year). As there were students whose native language is not Japanese and to ensure accessibility and clarity, participants were able to choose between official

English and Japanese versions of both scales. Completion took approximately 10 to 15 minutes. All responses were anonymous.

5．Data Analysis

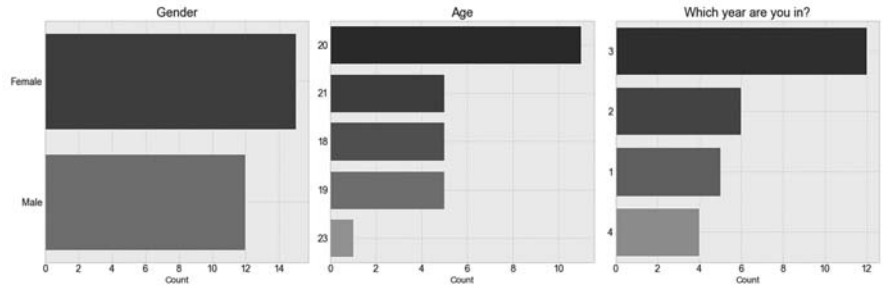
The data collected from the Rosenberg Self-Esteem Scale (RSES) and the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) were analyzed with support from a statistician. Descriptive statistics, including the mean, standard deviation, range, and quartiles, were calculated to provide an overview of the distribution of self-esteem and well-being scores among participants.

A Pearson correlation coefficient was used to assess the relationship between the RSES and WEMWBS scores, examining the strength and direction of the linear association between self-esteem and well-being. In addition, bivariate analyses were conducted to compare average scores across demographic groups such as age, gender, and academic year. These methods allowed for the identification of patterns and trends within the data and offered insights into how different groups of students experience self-esteem and mental well-being.

6．Results and Interpretation

6．1　Demographic Features Distribution (Figure 1)

A total of 27 students participated in this research. Of these, 44.4% were male and 55.6 % were female. The participants' ages ranged from 18 to 23 years, with the majority (40%) being 20 years old. In terms of academic year, students were distributed across all four years, with the largest proportion (44.4%) being in their third year.



(Figure 1. Demographic Features Distribution)

6．2　Rosenberg and Warwick Scores Distribution

The Rosenberg Self-Esteem Scale (RSES) (Figure 2)

Mean and Spread：The average score was 15.37, indicating a moderate or normal level of self-esteem shown by the participants. The standard deviation of 6.34 shows that there is considerable variability in participants' self-esteem.

Range：The scores varied from a minimum of 1 to a maximum of 27, highlighting a broad spectrum of self-esteem among the study participants.

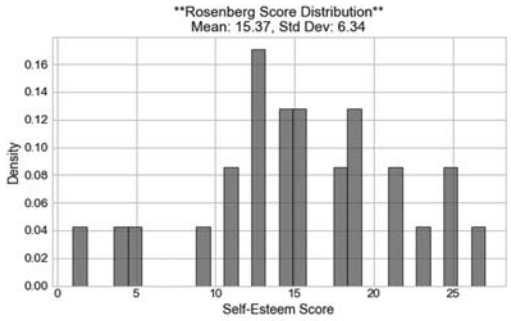
Quartiles：The interquartile range, from 13 to 19, shows that half of the scores are distributed within a narrower range, emphasizing a concentration of self-esteem perceptions around the median of 15.

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) (Figure 3)

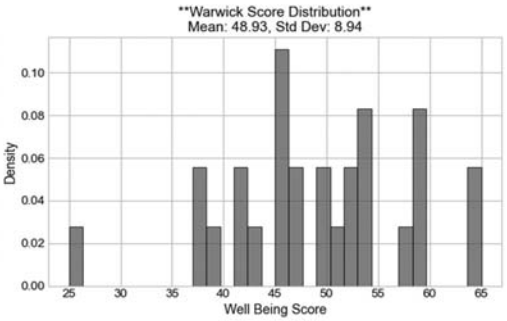
Mean and Spread：The average score was 48.93, indicating a moderate level of well-being among participants. The standard deviation of 8.94 suggests a moderate spread around the mean, indicating varied levels of how participants perceive their well-being.

Range：Scores range from a low of 25 to a high of 65, which points to significant differences in well-being perceptions among the participants.

Quartiles：The first quartile (25%) is at 44, and the third quartile (75%) is at 54, suggesting that the middle 50% of scores are relatively close together, centered around the median of 49. This concentration around the median indicates a clustering of scores within a typical range, with fewer extreme values.



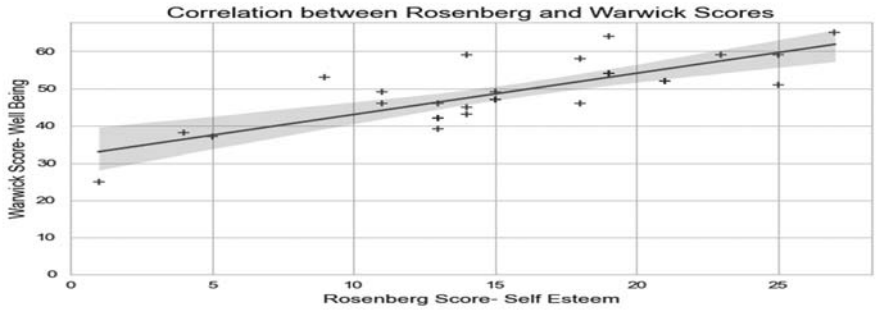
(Figure 2. Rosenberg Score Distribution)



(Figure 3. Warwick Score Distribution)

6．3　Pearson Correlation Analysis (Figure 4)

The relationship between self-esteem and well-being was analyzed using the Pearson correlation coefficient, which ranges from -1 to 1 to measure the strength and direction of a linear relationship. The correlation coefficient of 0.79 indicates a strong positive relationship between Rosenberg self-esteem scores and Warwick well-being scores. This suggests that higher self-esteem is associated with greater perceived well-being among participants.



(Figure 4. RSES & WEMWBS Pearson Correlation Analysis)

6．4　Bivariate Analysis Report by Demographic Features

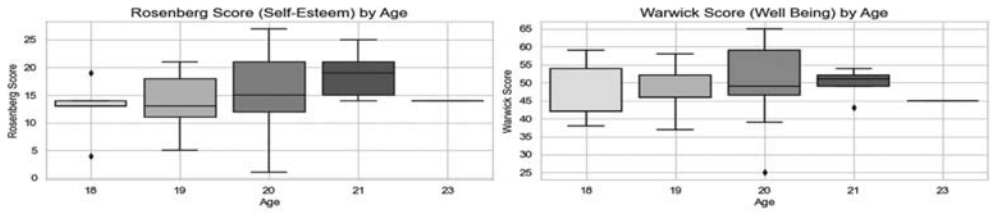
Bivariate analysis is a statistical method used to examine the relationship between two variables and helps identify patterns and trends. This analysis was performed to see how self-esteem (Rosenberg scores) and well-being (Warwick scores) vary across different demographic factors such as age, gender, and academic year.

6．4．1　Rosenberg and Warwick Scores by Age (Figure 5)

Variability across age groups：The Rosenberg and Warwick scores show noticeable differences across age groups. The mean Rosenberg score increases with age, from 12.6 at age 18 to 18.8 at age 21, suggesting that self-esteem may improve as students mature.

Consistency in Warwick scores：Unlike self-esteem, Warwick scores do not follow a clear age-related trend but remain relatively stable, with minor fluctuations. However, students aged 18 exhibit greater variance in Warwick scores, with a minimum of 38 and a maximum of 59 (standard deviation = 9). This suggests that younger students experience more diverse well-being levels, possibly due to varying adjustment challenges in their academic or personal lives.

Correlation insights：At younger ages (e.g., 18 years), both self-esteem and well-being tend to be lower, indicating that younger students may struggle more with their psychological well-being. However, as students grow older, self-esteem increases more consistently than well-being, highlighting different developmental trajectories for these two constructs.

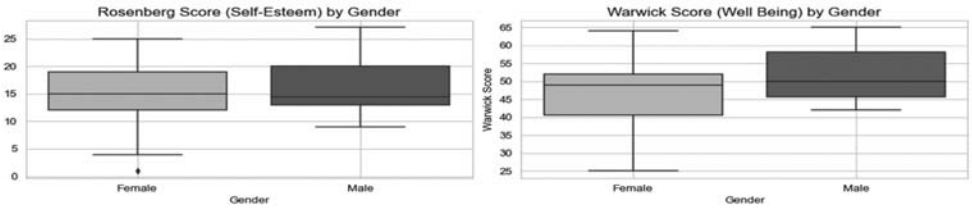


(Figure 5. Rosenberg & Warwick Scores by Age)

6．4．2　Rosenberg and Warwick Scores by Gender (Figure 6)

Self-Esteem (Rosenberg Scores)：Males report higher self-esteem (16.75) than females (14.26). This could suggest that males tend to have a more positive self-perception compared to their female counterparts.

Well-Being (Warwick Scores)：Males also score higher on well-being (51.42) compared to females (46.93). This difference may reflect gender-based variations in coping mechanisms, social support, or mental health resilience.



(Figure 6. Rosenberg & Warwick Scores by Gender)

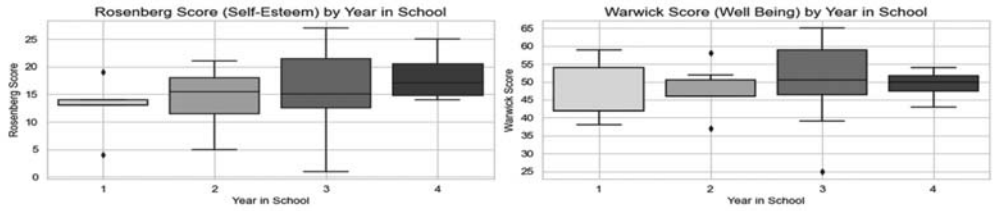
6．4．3　Rosenberg and Warwick Scores Over Academic Years (Figure 7)

Development of Self-Esteem Over Academic Years：Students in early academic years (Year 1) tend to have lower Rosenberg scores, which gradually increase and peak around Year 2. This trend suggests that self-esteem may develop as students gain academic and social experience. However, in later academic years (Year 4), there is a slight decline in self-esteem, which may be attributed to academic pressures, career uncertainties, or transition-related stress.

Well-Being Scores Across Academic Years：Warwick scores do not follow a straightforward trajectory, indicating that well-being may be influenced by factors beyond academic progression, such as personal relationships, extracurricular activities, or financial stressors.

Divergence in Score Trends：While self-esteem generally improves in the first two years, it declines slightly in later years, whereas Warwick scores remain relatively

stable. This suggests that self-esteem may be more sensitive to academic pressures than overall well-being.



(Figure 7. Rosenberg & Warwick Scores Over Academic Years)

7．Discussion

H 1 ：There is a positive correlation between self-esteem and well-being in university students.

The findings from this study reveal a strong positive relationship between self-esteem scores and well-being among university students (r=.79). This suggests that students who reported higher levels of self-esteem also tend to report higher levels of well-being. This is consistent with previous research (Mann et al., 2004). This strong correlation supports the theory that self-esteem is a predictor of well-being in young adult populations.

It should also be noted that there were some notably low scores suggesting areas of potential concern. The score range for the RSES is 0-30, low self-esteem (0-14), moderate (15-25), and high (26-30). Any participant with a result below 14 is classified as having low self-esteem. This study found that at least 25% of students scored within this range. The minimum score was 1, which is very low, potentially raising a red flag regarding self-worth for that student. As far as well-being is concerned, the score range for the WEMWBS is 14-70, low (14-41), moderate (42-59), and high (60-70). Scores below 42 are classified as low. 20% - 25% of participants had scores classified as low well-being with one participant having a score of 25 which again is concerning and may indicate mental distress or low life satisfaction.

H 2 ：Male students will report higher self-esteem and well-being than female students.

Male students reported higher levels of both self-esteem and well-being than females though only slightly. A previous meta-analysis conducted by Kling et al. (1999) that summarized the responses of approximately 48,000 young Americans indicated that males score higher on self-esteem than females but the difference is small which aligns well with the findings in this study. Whilst males reported slightly higher than females overall on both scales, there is a slightly different story when we look at the low scorer data. Female students in the low-scoring data showed lower self-esteem (average 10.95 compared to 12.07 for males), however they actually reported higher well-being

than males (average 47.26 compared to 44.22 for males). This suggests that while male students may usually feel better overall, those who do struggle may feel worse than female students with similar confidence levels.

H 3 ：Students in later academic stages will report higher self-esteem and well-being compared to students in earlier stages.

The data in this study partially supports hypothesis 3 as self-esteem scores generally increase with academic year, especially by year 4 (RSES average: 18.85) but well-being does not show a clear upward trend. Students in year 3 reported the highest well-being (WEMWBS average: 49.27), while year 4 scores declined slightly (45.08). This dip in well-being during the final year may reflect increased stress related to graduation and job hunting.

8．Limitations

This research has some limitations, the most obvious being the small sample size (N=27) with the results therefore not allowing for generalization. This is just a snapshot in time of how a particular group of students were feeling on a particular day. Although the surveys were given in both Japanese and English with the aim of creating as much clarity as possible, linguistic and cultural differences may also have affected interpretations. This has also been highlighted in research carried out by Brown (2005) where it is argued that apparent low Japanese self-esteem is the result of flaws in conceptualization, instrumentation, and interpretation, and does not necessarily reflect actual self-regard in Japan.

9．Conclusion

This study found a strong positive relationship between self-esteem and well-being among students at a Japanese university. While male students and those in later academic years generally reported higher scores, nuances were revealed among lower scorers hinting that well-being may decline for some students nearer to graduation. These findings suggest the need for universities to take into consideration both age and gender when providing support.

References

Adler, A. (1930/1964). *The Individual Psychology of Alfred Adler*. New York: Harper & Row.

Branden, N. (1994). The Six Pillars of Self-Esteem. Bantam.

Brown, R. A. (2005). The paradox of Japanese self-esteem. Information & Communication Studies, 32, 1-12.

Diener, E. (2009). Well-being for Public Policy. Oxford University Press.

Dodge, R., Daly, A. P., Huyton, J., & Sanders, L. D. (2012). The challenge of defining wellbeing. International Journal of Wellbeing, 2(3), 222-235.

Grant, A. M., & Kinman, G. (2009). The importance of emotional resilience for staff and students in the 'helping' professions: Developing an emotionally competent workforce. Higher Education Academy Health and Social Care Report, 1-23.

Karademas, E. C. (2007). Positive and negative aspects of well-being: Common and specific predictors. *Personality and Individual Differences, 43*(2), 277-287.

Keyes, C. L. M., & Annas, J. (2009). Feeling good and functioning well: Distinctive concepts in ancient philosophy and contemporary science. *Journal of Positive Psychology, 4*(3), 197-201.

Kling, K. C., Hyde, J. S., Showers, C. J., & Buswell, B. N. (1999). Gender differences in self-esteem: A meta-analysis. Psychological Bulletin, 125(4), 470-500.

Mann, M., Hosman, C. M. H., Schaalma, H. P., & de Vries, N. K. (2004). Self-esteem in a broad-spectrum approach for mental health promotion. Health Education Research, 19(4), 357-372.

Marshall, S. L., Parker, P. D., Ciarrochi, J., & Heaven, P. C. L. (2014). Is self-esteem a cause or consequence of social support? A 4-year longitudinal study. Child Development, 85(3), 1275-1291.

Ministry of Health, Labour and Welfare. (2024). 2024 White Paper on Suicide Prevention.

Mitsui, N., et al. (2014). The association between suicide risk and self-esteem in Japanese university students withmajor depressive disorder. Neuropsychiatric Disease and Treatment, 10, 811-816.

Pullmann, H. (2008). Relations of academic and general self-esteem to school achievement. Personality and Individual Differences, 45, 559-564.

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton University Press.

Rosenberg, M., & Owens, T. J. (2001). Low self-esteem people: A collective portrait. In T. J. Owens, S. Stryker, & N. Goodman (Eds.), Extending self-esteem theory and research (pp. 400-436). Cambridge University Press.

Tennant, R., et al. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Development and UK validation. Health and Quality of Life Outcomes, 5, 63.

Uchida, C., & Uchida, M. (2017). Characteristics and risk factors... Journal of Clinical Psychiatry, 78, e404-e412.

Universities UK. (2015). *Student mental wellbeing in higher education: Good practice guide.* London: Universities UK.

World Health Organization. (2004). Promoting mental health: Concepts, emerging evidence, practice (Summary report).