

Relationship between Self-Esteem and Physical Competence in Female University Students

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ABSTRACT

The purpose of this study was to determine the relationship self-esteem and physical competence of 185 female university students from three universities in the Tokai region. They were provided with guidance for the major points of this survey, and it was explained that there would be no disadvantages for students who didn't want to participate, and the questionnaires were to be collected on-site (collective survey method). The period of research was from the beginning to the end of July in 2006. The obtained data was processed by SPSS ver.11 for Windows statistically. The analysis methods were: reliability analysis of scale, descriptive statistics, Pearson's product-moment correlation coefficient, and unpaired t-test. From the results of this research, the reality of female university students with low self-image is highlighted, and physical competence is demonstrated to be a significant relevant factor in increasing the self-esteem of the students. Also, it is indicated that the degree of physical competence is reflected in self-esteem.

Key words; self-esteem, physical competence, female university students

I. Introduction

Enhancement of psychosocial skills is considered to be important for young people to be able to properly address the various problems that may occur in their daily life¹⁾. Perceived self-esteem is a psychological variable that forms the foundation of these psychosocial skills, and it is recognized as an important issue to enhance the self-esteem of young people among employers and educators²⁻⁴⁾. Many researchers

have interpreted and defined the concept Self-esteem as a feeling of self-respect, sense of pride or self-worth, but it is generally understood that it's an affirmative feeling of oneself⁵⁾.

It is thought that self-esteem changes through time as one grows and is formed from infancy through recognition or admiration, denial or rebuke, from the people around us such as parents, family, friends and teachers by responding to successes and failures experienced in daily life. The degree of self-esteem

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defines not only awareness and behavior of individuals⁶⁻⁷⁾ but can also be an important index of psychological well being⁸⁾.

It has been reported there exists a difference in self-esteem between the genders⁹⁻¹⁰⁾. Also, there is a general tendency for depression to become stronger and self-esteem to deteriorate as a person enters adolescence. This tendency appears to be stronger in girls, as has been shown¹¹⁾. The causes of this effect have been identified as including cultural perception that a thin figure is desirable; which in turn may create a distorted perception of ones own body image based on this desire and a dissatisfaction with physical appearance, both of which are factors that influence the gender consciousness of girls and affect their self-esteem¹²⁻¹⁵⁾.

In an earlier study, "Physical competence" is mentioned as one of the factors that affects motor behavior. "Physical Competence" is positive recognition toward self-athletic ability or attainment, and the degree of subjective confidence, including surrounding factors, which support self-confidence that physical exercise can be well done. For instance, when physical exercise can be better done through effort and practice, one may be more favorably recognized by the teachers and colleagues¹⁶⁾.

There is much research about the causes that affect physical competence, but the relationship between self-esteem and physical competence has not been researched enough. It is important to clarify this point in order to study the measures for improving self-esteem among female university students.

The purpose of this research is to study the relationship between self-esteem and physical competence among female university students. There are three points of research, they are as

follows: 1) Distribution of self-esteem of the samples. 2) The relationship between self-esteem and physical competence. 3) The relationship between the scores of physical competence and self-esteem. The purpose of this research is to determine if physical competence is the most relevant factor for improving the self-esteem of female university students.

II. Method

1. The sample and method

The sample was of 185 female university students from three universities in the Tokai region who took an anonymous self-administrative questionnaire. The surveyed people all belonged to humanities departments such as Education, Humanities and Social Science. The following ethical points were taken into consideration prior to the research: The students were provided with guidance for the major points of this survey, and it was explained in full that it would be an anonymous questionnaire given of one's own volition and that there would be no disadvantages for students who didn't want to participate; they could stop half-way and could immediately retract answers just made; the results would not reflect the student's grade; privacy would be protected; the obtained data would be used for the purpose of this research and questionnaires would be disposed of by the researcher when the research is done. The research was conducted with the student's consent, and the questionnaires were collected on site (collective survey method). The period of research was from the beginning to the end of July in 2006. The reasons for choosing this period were that most students have periodic examinations, and the amount of physical activi-

ty is less during this period compared to the rest of the college year.

2. Composition of the survey

The outline of the scale that was subjected for analysis in the surveys used is as follows.

(1) Scale of Self-esteem

This research adopted the scale that was developed by Rosenberg, translated and studied the reliability and validity by Munakata et al. in order to measure how much a sample evaluates their own behavior affirmatively¹⁷⁾. With regard to the scoring, for questions (1) (3) (4) (7) and (10) of the ten questions, 1 point is given if either “Very true” or “Mostly true” is selected. For the other questions 1 point is given if “Not true” is selected. The accumulative score of all ten questions is the scale score. A higher score shows a higher self-esteem. The Cronbach’s coefficient α in this study was 0.73.

(2) Scale of Physical competence

This existing scale was made by Okazawa et al.¹⁶⁾ based on an earlier study¹⁸⁻²⁴⁾ that not only looked at positive recognition toward self-athletic ability/attainment but also measured the degree of subjective confidence including surrounding factors. These support the confidence that physical exercise can be well done; for instance, when physical exercise can be better done through effort and practice, one may be recognized by teachers and colleagues. With regard to the scoring, 5 points are given if “Very true” is selected. If “Mostly true” is selected, 4 points are given. If “Fairly true” is selected, 3 points are given. If “Not really true” is selected, 2 points are given. If “Not true at all” is selected, 1 point is given. Moreover, this scale can be divided into three further rank fac-

tor categories; “perceived physical competence (confidence that one can do it.)”, “feeling of control (confidence that physical exercise can get better by effort and practice”, and “peer and teacher acceptance (confidence that one can be recognized by teachers and colleagues.)” The score, which added up a score of four items corresponding to each separate score, is the score of each low rank factor. The object of analysis in this study was the total score of the sum of the twelve items. There is a positive correlation between the score and the level of physical competence. The Cronbach’s coefficient α in this study was 0.90 for “entire scale of physical competence”, 0.93 for “perceived physical competence”, 0.89 for “feeling of control” and 0.76 for “peer and teacher acceptance”.

3. Methods of Analysis

The obtained data was processed by SPSS ver.11 for Windows statistically. The analysis methods were: reliability analysis of scale, descriptive statistics, Pearson’s product-moment correlation coefficient and unpaired t-test.

III. Results and Discussion

1) Distribution of self-esteem of the samples

Descriptive statistics were calculated to study the distribution of self-esteem of the samples. Figure 1 shows that 72.4% answered that the self-image is “bad (low group)”, 22.2 % answered “ordinary (middle group)”, 5.4 % answered “good (high group)”. A little under 30% of university students evaluate their self-image “ordinary or good”, but nearly 70% of university students have a poor self-image.

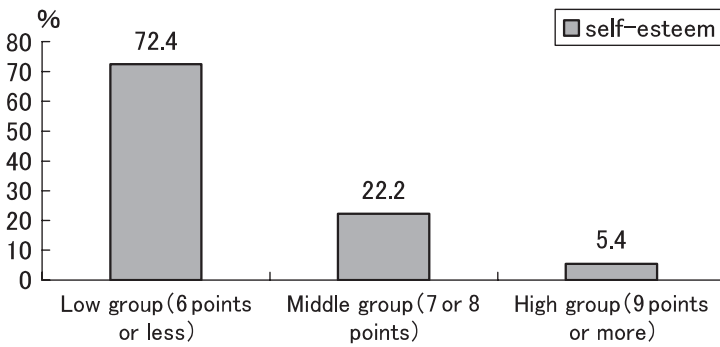


Figure 1 Distribution of self-esteem (sorted by 3 groups)

associated with the improvement of self-esteem, on the other hand it can also be increased by improving the self-esteem. The relationship between the self-esteem and physical competence has been revealed partially, but the causal association between them and the variables connecting the relationships

2) Relationship between the self-esteem and physical competence

The Pearson’s product-moment correlation coefficient was calculated to determine the relationship of the self-esteem and physical competence. Figure 2 shows the results: This proves that there is a positive correlation between the self-esteem and the physical competence ($r=.230, p<.01$).

Primary school students and university students were surveyed to determine the relationship between self-esteem and physical competence by Kagawa et al.²⁵⁻²⁶⁾ According to this research, a significant positive correlation between self-esteem and physical competence is proven, and the results of this study support the earlier studies.

Increased physical competence is a factor

needs to be clarified by investigating further.

3) Comparison of average value of physical competence scores by the self-esteem level

An unpaired t-test was conducted in order to determine the scoring of physical competence by comparing to the levels of self-esteem. As a standard of grouping of the self-esteem levels, I have separated them into two groups: 6 or less points for low self-mage is the first group, the second has been made by combining two groups: 7 or 8 points of normal self image with 9 or more points of good image for the middle/high group. Table 1 shows the results. A significant difference was proved in “physical competence”, the middle/high group shows a significantly higher score compared to the low group ($t(183) = -3.308, p<.001$).

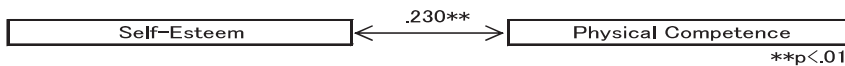


Figure 2 Product-moment correlation coefficient of self-esteem and physical competence (n=185)

Table 1 Scoring of physical competence by the levels of self-esteem

Scale	Low (n=134)		Middle/High (n=51)		t-value
	Mean	SD	Mean	SD	
Physical competence	38.91	9.00	43.71	8.30	-3.308 ***

***p<.001

From the result of this study, the level of physical competence reflects the level of self-esteem. According to Okazawa et al.²⁷⁻²⁹⁾, physical competence is affected by sources of information such as 1) pleasantness of experience of exercise, 2) improvement of group cohesiveness, and 3) style of causal attribution. As someone in charge of college physical education, by not only coaching various sports, in the future these coaches need to give instruction that focuses on increasing the physical competence of the students.

Finally, we will look at the limitations of this research and future tasks. The knowledge of this research was obtained by cross-sectional study, and I can't give recommendations on the presumption of causal association or its implementation. Increasing the number of samples, examining the relationship between self-esteem and physical competence longitudinally, examining the causal association of them and the variables that exist in their relationship should be avenues of investigation for future research.

IV. Conclusion

The purpose of this study is to determine the relationship between self-esteem and physical competence of the 185 female university students from three universities in the Tokai region. The following conclusions were found:

From the results of this research, the reality of female university students with low self-image is highlighted, and physical competence is demonstrated to be a significant relevant factor in increasing the self-esteem of the students. Also, it indicates that the degree of physical competence reflects the self-esteem.

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女子大学生における自己価値感と運動有能感の関連

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要 約

本研究の目的は、東海地区の3大学の女子大学生185名を対象に、自己価値感と運動有能感との関連について検討することである。調査の実施にあたっては対象者への倫理的配慮を十分に行い、同意を得た上で調査を実施し、調査票はその場で回収した（集合調査法）。調査期間は、2006年7月上旬から下旬にかけてである。得られたデータは、SPSS ver.11 for Windowsにより統計的に処理した。分析方法は、尺度の信頼性分析、記述統計、Pearsonの積率相関係数、及び対応のないt検定であった。その結果として、自己イメージの低下した女子大学生の実態が浮き彫りとなり、自己価値感の向上によって、運動有能感は有意な正の関連要因であることが明らかとなった。また、運動有能感の高さは、自己価値感の高さを反映することが示唆された。

キーワード：女子大学生、自己価値感、運動有能感

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