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# Influence of physical activity on students' physical self-concept and satisfaction with life: Physical and non-physical education students' perspective

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**Abstract**

The purpose of this study was to find out the physical and non-physical education students' physical self-concept and satisfaction with life. 470 students were selected randomly as two sample groups (physical and non-physical education students). The valid sample of study was 449. The two questionnaires employed here were the Physical Self-Description Questionnaire (PSDQ-S) and the Satisfaction with Life Scale. SPSS 20 was used to produce the Mean; Standard Deviations; Pearson's Product Moment Correlation (r); One-Sample and Independent t-test; and One-Way Analysis of Variance. The results showed that there was significance difference between non-physical and physical education students about physical self-concept in overall and nine dimensions, except factors of coordination and sport. Physical education students have a positive understanding of their body in comparison with non-physical education students. The results also showed, there was no significance difference between non-physical education and physical education students about satisfaction with life. There was also relatively low positive correlation between physical self-concept in overall and nine dimensions with life satisfaction except factors of body Fat and health. Based on the research findings, it is recommended that universities should pay more attention to physical activity.

**Keywords**: Physical activity, physical self-concept, satisfaction with life, physical and non-physical education students.

## INTRODUCTION

There is no doubt that physical activity is an important part of life and especially it is effective in the human experience. According to researchers such as Eyre et al. (14), physical education increases opportunities for physical activity in schools. Bouchard et al. (3) and Marti & Carol (27) defined the Physical activity as "any bodily movement produced by skeletal muscles that result in energy expenditure". In fact, the studies show that regular physical activity can improve physiological and psychological health (38). In other word, through regular physical activity can improve the health, longer life, reduced risk of heart disease, high blood pressure, diabetes, obesity and some cancers (15). So it can be concluded, physical education should be an important part of that physical activity time. The results of many studies (5,16,18,19,23) on the impact of physical education on the different aspects of people's lives, focused on improving curricula, increasing the number of physical education classes, physical education teacher development, and .... As noted, physical activity can have positive effects on physical and mental, for example, the impact of physical activity on self-concept, quality of life, academic performance and career.

### Physical Activity and Physical Self-Concept

Sometimes the terms self-concept, self-esteem, and [self-perceptions] have been used interchangeably. Self-concept refers to the assessment of individual qualifications, attributes and features that are comparable with others. There are different types of self-concept such as Academic self-concept, social self-concept, emotional self-concept, and physical self-concept. Many researchers have studied about the impact of physical activity on self-concept and they have found that the physical activity have a positive impact on the self-concept (29,32,37).

In a study about the relationship between physical activity and physical self-perceptions, Crocker et al. (8) found physical self-perceptions are significantly correlated with physical activity. In the similar study Hays et al. (17) also found same results. Schneider et al. (35) in a study were examined the effect of physical activity on physical self-concept. Participants were required to meet the insufficient physical activity to maintain fitness, and ability to exercise. Dishman et al. (11) found that physical activity was correlated with Physical Self-Concept subscale scores. In another study Kirkcaldy et al. (21) found that Physical exercise was further significantly related to scores for physical self-concept. The results of a study to compare physical self-concept between physical education and non-physical education university students, Arazi and Rastgar (1) showed mean vector scores of physical education in the following scales: physical activity; global physical; competence; sports; strength; endurance and flexibility were significantly higher than that of non-physical education major students.

**Physical Activity and Satisfaction with Life**

Life satisfaction is very simple and clear terms are defined. For example, Telman and Unsal (36) have defined it as Life Satisfaction generally implies the pleasure that a person gets from his/her life. Cribb (7) believe that life satisfaction is the degree of contentment with one's own life style. Life satisfaction is referred as an assessment of the overall conditions of existence as derived from a comparison of one's aspiration to one's actual achievement. According to Avsaroglu et al. (2) Life satisfaction is the dominance of positive feelings to the negative ones in the daily life and means to be good in different views such as happiness and moral. According to Zullig and White (40) little research has examined the association between life satisfaction, self-rated health (SRH), and physical activity concurrently. However, the research on the relationship between physical activity and life satisfaction indicate a positive relationship between these two variables (6,13,25,28,31). In order to investigate the relationship between physical activity and life satisfaction Labudzki and Tasiemski (24) found that more than 50% of the respondents were classified as being highly active and that the total sample was "rather satisfied" with life "as a whole". The level of PA performed was significantly positively correlated with the level of life satisfaction. The findings of Brown and Frankel (4) also have provided evidence for age variation in sources of life satisfaction apart from leisure, and for important gender differences in the role of physical activity. In another study, in the context of Physical activity behaviors and perceived life satisfaction, Valois et al. (39) found that high intensity physical activity was associated with a high degree of life satisfaction. It seems plausible to assume that regular physical activity can lead to life satisfaction (9,12,33,34). In a study, McTeer and Curtis (30) examined the relationship between participation in sport and physical activity in relation to feelings of life satisfaction. They have found that physical activity and sport participation significantly impacted life satisfaction. According to Koivumaa- Honkanen, et al., (20) physical activity has a positive impact on health and thereby increases life satisfaction. The purpose of this study was:

- To determine status of students' physical self-concept
- To determine status of students' satisfaction with life
- To examine physical self-concept among physical education and non-physical education students
- To examine satisfaction with life among physical education and non-physical education students
- To examine correlation between physical self-concept and satisfaction with life among physical education and non-physical education students.

## MATERIAL & METHODS

**Participants**

The methodology of this study was that of a quantitative research. The population of this study was all students at University of Sistan and Baluchestan, Iran. Out of 19750 students (11850 girls and 7900 boys) with using Krejcie and Morgan's (22) sample size table, 470 subjects were selected randomly as two sample groups. The valid sample of this study was 449. The details of sample descriptive statistics are displayed in Table 1.

Table 1. The details of sample (N=449)

| Variable | Subgroups | N | % |
|---|---|---|---|
| Groups | Non-Physical Education Students | 95 | 21.2 |
| | Physical Education Students | 354 | 78.8 |
| Gender | Boy | 183 | 40.8 |
| | Girl | 266 | 59.2 |
| Age | 18-21 | 192 | 42.8 |
| | 22-above | 257 | 57.2 |

**Measures**

The two questionnaires employed here were The Physical Self Description Questionnaire (PSDQ-S), of the Marsh et al. (26) and The Satisfaction with Life Scale of the Diener et al. (10).

The Physical Self Description Questionnaire consists of 47 items and measures 11 dimensions related to the individual's self-perception: Action (4 items), Appearance (4 items), Body Fat (4 items), Coordination (5 items), Endurance (4 items), Flexibility (4 items), Health (5 items), Sport (4 items), Strength (4 items), Global Physical (4 items), and Global Esteem (5 items). For each of the 11 dimensions a mean score was calculated along a continuous scale varying from 1 (Strongly disagree) to 6 (Strongly agree), with a low value representing negative and a high value representing positive self-perception. The scoring for the negatively worded items 8, 11, 17, 19, 22, 25, 29, 30, 33, 39, 46, and 47 was reversed. The scale has acceptable validity, reliability (coefficient alpha at least 0.80). In this study internal consistency reliability was estimated by Cronbach's alphas and for the total items of Questionnaire an alpha of .92 was obtained. Coefficient alpha for 11 dimensions were respectively: .76; .75; .75; .84; .72; .69; .74; .65; .78; .65; and .81.

Satisfaction with Life Scale consists of five items and participants rate their agreement with each item from 1 (Strongly disagree) to 6 (Strongly agree). Scores can range from 5 to 35 and the scale has acceptable validity, reliability (coefficient alpha = 0.87) and internal consistency. In this study internal consistency reliability was estimated by Cronbach's alphas and an alpha of .88 was obtained.

**Statistical Analysis**

SPSS 20 was used to produce the Mean; Standard Deviations; Pearson's Product Moment Correlation (r); One-Sample and Independent t-test.

**RESULTS**

**How is the students' situation about the physical self-concept?**

The figures at table 2 show that students' physical self-concept in all dimensions except factor of action was positive and good. The compute of One-Sample t-test show there was significant difference between the means obtained by averaging assumption (Test-Value). In fact, the obtained means were more than the test-value for all dimensions.

**How is the students' situation about satisfaction with life?**

The figures at table 3 show that students were satisfied with their lives at a relatively high. The compute of One-Sample t-test show there was significant difference between the mean obtained by averaging assumption (Test-Value).

Table 2. Mean, Std. D., and One-Sample t-test of students' physical self-concept.

| Variables | N | Mean | Std. D. | One-S. t-test | df | Test- Value |
|---|---|---|---|---|---|---|
| Action | 422 | 14.32 | 4.24 | 1.562 | 421 | 14 |
| Appearance | 436 | 17.74 | 3.84 | 20.332** | 435 | 14 |
| Body Fat | 435 | 15.21 | 2.93 | 8.598 ** | 434 | 14 |
| Coordination | 417 | 20.81 | 4.14 | 16.333** | 416 | 17.5 |
| Endurance | 432 | 15.44 | 4.11 | 7.258** | 431 | 14 |
| Flexibility | 406 | 15.90 | 3.87 | 9.870 ** | 405 | 14 |
| Health | 427 | 17.24 | 2.45 | -2.206 * | 426 | 17.5 |
| Sport | 424 | 15.70 | 2.64 | 13.303 ** | 423 | 14 |
| Strength | 438 | 14.56 | 3.39 | 3.431 ** | 437 | 14 |
| Global Physical | 430 | 17.41 | 4.06 | 17.416** | 429 | 14 |
| Global Esteem | 422 | 21.90 | 4.30 | 21.023 ** | 421 | 17.5 |
| In Overall | 412 | 186.22 | 24.74 | 17.822** | 411 | 164.5 |

*p < .05; **p < .001

Table 3. Mean, Std. D., and One-Sample t-test of students' satisfaction with life.

| Variables | N | Mean | Std. D. | One-S. t-test | df | Test- Value |
|---|---|---|---|---|---|---|
| Satisfaction with life | 444 | 20.71 | 5.27 | 12.835* | 443 | 17.5 |

* p < .001

Table 4. Mean, Std. D., and t-test about physical self-concept by physical and non-physical education students.

| Variables | Group | N | Mean | Std. D. | df | t-test |
|---|---|---|---|---|---|---|
| Action | NON-PES | 339 | 13.69 | 4.24 | 420 | -6.488** |
| | PES | 83 | 16.90 | 3.13 | | |
| Appearance | NON-PES | 345 | 17.44 | 3.86 | 434 | -3.133** |
| | PES | 91 | 18.85 | 3.55 | | |
| Body Fat | NON-PES | 345 | 14.84 | 2.80 | 433 | -5.245 ** |
| | PES | 90 | 16.61 | 3.03 | | |
| Coordination | NON-PES | 333 | 20.64 | 4.18 | 415 | -1.660 |
| | PES | 84 | 21.48 | 3.91 | | |
| Endurance | NON-PES | 342 | 15.01 | 4.18 | 430 | -4.288 ** |
| | PES | 90 | 17.06 | 3.41 | | |
| Flexibility | NON-PES | 318 | 15.58 | 3.92 | 404 | -3.213 ** |
| | PES | 88 | 17.06 | 3.472 | | |
| Health | NON-PES | 339 | 17.12 | 2.42 | 425 | -2.062 * |
| | PES | 88 | 17.72 | 2.50 | | |
| Sport | NON-PES | 333 | 15.59 | 2.72 | 422 | -1.621 |
| | PES | 91 | 16.10 | 2.26 | | |
| Strength | NON-PES | 345 | 14.38 | 3.51 | 436 | -2.152 * |
| | PES | 88 | 15.25 | 2.79 | | |
| Global Physical | NON-PES | 342 | 16.87 | 4.02 | 428 | -5.617** |
| | PES | 88 | 19.50 | 3.48 | | |
| Global Esteem | NON-PES | 333 | 21.32 | 4.24 | 420 | -5.464** |
| | PES | 89 | 24.03 | 3.81 | | |
| In Overall | NON-PES | 331 | 183.75 | 24.94 | 410 | -4.192** |
| | PES | 81 | 196.35 | 21.23 | | |

*p < .05; **p < .001

Table 5. Mean, Std. D., and t-test about satisfaction with life by physical and non-physical education students.

| Variables | Group | N | Mean | Std. D. | df | t-test |
|---|---|---|---|---|---|---|
| Action | NON-PES | 354 | 20.77 | 5.36 | 442 | .489 |
| | PES | 90 | 20.47 | 4.91 | | |

**Is there any difference between physical and non-physical education students about physical self-concept?**

The results of table 4 shows, there was significance difference between non-physical education and physical education students about physical self-concept in overall and nine dimensions except factors of coordination and sport. In fact in all dimensions –even coordination and sport- physical education students have a positive understanding of their physic in comparison with non-physical education students.

**Is there any difference between physical and non-physical education students about satisfaction with life?**

The figures at table 5 show there was no significance difference between non-physical education and physical education students about satisfaction with life. In fact, both groups were equally and relatively in the high level satisfied with their life.

Table 6. Correlation between students' physical self-concept and satisfaction with life.

| Non-physical education students | | Satisfaction with life | Physical education students | | Satisfaction with life | Total students | | Satisfaction with life |
|---|---|---|---|---|---|---|---|---|
| Action | r | .468** | Action | r | .268* | Action | r | .410** |
| | N | 339 | | N | 81 | | N | 420 |
| Appearance | r | .458** | Appearance | r | .444** | Appearance | r | .447** |
| | N | 345 | | N | 87 | | N | 432 |
| Body Fat | r | .000 | Body Fat | r | -.034 | Body Fat | r | -.017 |
| | N | 345 | | N | 85 | | N | 430 |
| Coordination | r | .413** | Coordination | r | .303** | Coordination | r | .388** |
| | N | 333 | | N | 80 | | N | 413 |
| Endurance | r | .346** | Endurance | r | .215* | Endurance | r | .313** |
| | N | 342 | | N | 87 | | N | 429 |
| Flexibility | r | .409** | Flexibility | r | .061 | Flexibility | r | .338** |
| | N | 318 | | N | 85 | | N | 403 |
| Health | r | .243 | Health | r | .023 | Health | r | .052 |
| | N | 339 | | N | 85 | | N | 424 |
| Sport | r | .439** | Sport | r | .320** | Sport | r | .415** |
| | N | 333 | | N | 88 | | N | 421 |
| Strength | r | .339** | Strength | r | .293** | Strength | r | .327** |
| | N | 345 | | N | 85 | | N | 430 |
| Global Physical | r | .503** | Global Physical | r | .314** | Global Physical | r | .454** |
| | N | 342 | | N | 85 | | N | 427 |
| Global Esteem | r | .362** | Global Esteem | r | .202 | Global Esteem | r | .323** |
| | N | 333 | | N | 86 | | N | 419 |
| Total Self-Concept | r | .467** | Total Self-Concept | r | .328** | Total Self-Concept | r | .432** |
| | N | 331 | | N | 78 | | N | 409 |

* p < .05; **p < .01

**Is there any correlation between students' physical self-concept and satisfaction with life?**

The results of table 6 show that there was relatively low positive correlation between physical self-concept in overall and nine dimensions with life satisfaction except factors of body Fat and health. This was the same result for the total sample and non-physical and physical education students, separately.

## DISCUSSION

The purpose of this study was to find out the physical education and non-physical education students' physical self-concept and satisfaction with life. The results showed that there was significance difference between non-physical education and physical education students about physical self-concept in overall and nine dimensions except factors of coordination and sport. Physical education students have a positive understanding of their physic in comparison with non-physical education students. The results also showed, there was no significance difference between non-physical education and physical education students about satisfaction with life. Generally speaking, the findings of this study indicated that physical activity is effect in positive physical self-concept and life satisfaction. In this regard, the results showed that there was positive correlation between students' physical self-concept and life satisfaction.

These findings with the findings of previous studies such as Arazi and Rastgar (1); Chae-Hee, et al. (6); Deci & Ryan (9); Dishman et al. (11); Dolan et al. (1)2; Elavsky (13); Kirkcaldy et al. (21); Koivumaa-Honkanen et al. (20); Labudzki and Tasiemski (24); Ozsaker et al. (32); Maher et al. (25); McAuley et al. (28); McPhie & Rawana (29); Proctor et al. (33); Schneider et al. (35); Netz et al. (31); Ryan & Deci (34); and Tremblay et al. (37) are consistent.

It seems that the importance of physical activity and its impact on various aspects of students' physical, mental and psychological, educational institutions, and higher education should be paid serious attention to this issue. The development of formal and informal curriculum and instruction in this area is recommended. Sport facilities at the universities have

developed and expanded. Physical education courses at universities should be taken seriously.

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