The Relationship between Forward Shoulder Posture and Self Esteem in Non-athlete Female Students of Tehran University

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ABSTRACT: The objective of this study was to investigate the relationship between forward shoulder and self esteem in female students. In order to do so, researchers used Coopersmith self esteem inventory (questionnaire) as well as photogrammetry method to measure variables. This research was conducted on 100 non-athlete female students of Tehran University with an average age of 26.44 ± 1.46 years, height 162.56 ± 5.87 cm, weight 55.88 ± 6.69 kg. First, the mentioned questionnaire was distributed among participants and then degree of forward shoulder was determined via photogrammetry method. Sampling was randomly done. The type of research is descriptive and Pearson correlation coefficient was used to determine correlation and significance. Results showed that there is a significant relationship between degree of forward shoulder and self esteem in non-athlete female students of Tehran University (r = -0.871, p = 0.001).

Key words: Coopersmith inventory, Forward Shoulder, Non-athlete female, Photogrammetry method, Self esteem

INTRODUCTION

It is impossible to isolate body and soul and both should be paid attention simultaneously and necessary conditions for improvement of both should be prepared since a complete person is one whose all dimensions of existence are developed. Now psychologists are well aware that clear and peaceful soul is influenced by physical conditions of body and body and activity of organs on the other hand, depends on psychological and mental status (Hosseini, 2013).

Forward shoulder posture is one of the most prevalent deviations of body from normal state (Lynch et al., 2010). In forward shoulder posture which has been defined as change of static position of shoulder in horizontal plane, length of pectoralis minor is shortened due to proximity of terminal ends of 3rd, 4th, and 5th ribs to initial ends (Borstad, 2006; Kendall et al., 2010). Forward shoulder posture may be a result of shortness in anterior muscles of the shoulder girdle such as serratus anterior, small pectorals, and trapezius whose consequences are weakness and inhibition of middle and lower trapezius muscles.

Self esteem is considered as approval or lack of approval of oneself to oneself and shows the degree in which one considers oneself able and important. Therefore in order to have a better understanding of behaviours of one it is important to recognize feelings of one about oneself. Based on viewpoint of Coopersmith, the term self esteem points to judgment of people about themselves regardless of situation (Coopersmith, 1967). Self esteem is a set of feedbacks and ideas that people express while they are interacting with outside world. Belief in personal success, self preparing according to specified objective, rather deep influence by failure, and improvement of self efficiency using previous experiences are feedback related to self esteem (Mirheydari et al., 2010).
During recent decades, field of psychology and corrective exercises have had a significant development and have been considered more than any time. However in our country research on psychological and body disorders has had lower growth and there is few research on relationship of physical disorders and mental issues. In this field Canales et al (2010), studied mental health of 34 persons with weak body postures such as hyperkyphosis, forward scapula, and unequal shoulders and compared results with 37 people in control group and expressed that mental health of abnormal group is slightly weaker than that of control group. Babekir et al (2007), also studied 35 persons with hyperkyphosis above 60 degrees in terms of depression and finally stated that depression could be one of the reasons for hyperkyphosis. Wade (2006) conducted a research as self esteem in people with scoliosis and in normal people; in that research 39 teenagers with scoliosis were compared with 47 healthy teenagers (age of 15 to 18) and results showed that people with scoliosis had higher self esteem than members of control group. Also in a research by Alizade et al on relationship of hyperkyphosis and symptoms of depression, anxiety, aggression, and introspection, they found no significant correlation among these factors, and these results were in accordance with results of research by Samadi et al (2008), and also that of Ghafoori et al (2007), which shows contradictions comparing with studies of Canales et al and Babekir et al. Health or sickness of all mental and physical dimensions of human being, affect the other one, so it is important to deal with this issue and to know the effects of body and mind on each other. Body and mind are two faces of a coin that damage of one, would affect the other and finally threatens general health (Ghasemi et al., 2010). However by reviewing the literature it could be understood that not only little research has been conducted on issue, but also contradictory results have been obtained and relationship between forward shoulder disorder and psychological factors such as self esteem has not been investigated yet. Considering the mentioned problems it is possible to ask if there is a relationship between forward shoulder and self esteem.

**METODOLOGY**

Statistical population of this research includes all non-athlete female students of Tehran University with forward shoulder among whom, 100 participants were selected as subjects with an average age of 26.44 ± 1.46 years, height 162.56 ± 5.87 cm, weight 55.88 ± 6.69 kg.

In order to measure self esteem Coopersmith self esteem inventory was used. Reliability of this questionnaire in Iran has been reported as 0.77 and 0.8 with four days and twelve days intervals respectively. The reported internal consistency coefficient has been varying from 0.83 to 0.89 in various studies. Also reliability coefficient of this test has been reported as 0.9 and 0.92 for females and males respectively using retest method (Sabe, 1995; nayebifard, 2002).

For measuring angle of forward shoulder photogrammetry method has been used and in this research a camera with high zoom effect alongside with a tripod and markers on C7 iliac spines and the appendage were used. In order to determine angle Foxit Reader software was used on landmarked photo. It should be mentioned that Saad in 2009 has reported a high validity for this method comparing with radiography (0.94). Also this method has high repeatability (ICC: 0.96).

To collect information subjects first voluntarily complete the self esteem questionnaire which had been prepared before. Mean time for completing questionnaire by each subject lasted 15 minutes in average and then subjects got ready for measuring degree of forward shoulder via photogrammetry method. Then the scores obtained from subjects were compared based on their forward shoulder degree, mental coefficient and relation with angle of forward shoulder resulted from measurement were analyzed using Pearson correlation coefficient, significance level at 0.05, and SPSS 16.

**FINDING AND RESULT**

Table 1 shows characteristics of participants of the research and according to calculated P (0.001) and correlation coefficient (-0.871) in table 2 it is possible to claim a significant relationship between degree of forward shoulder and self esteem in female non-athlete students.
DISCUSSION

The main objective of current research is to investigate relationship of forward shoulder with self esteem of non-athlete female students. To do so and to evaluate body status of subjects and degree of forward shoulder photogrammetry method was used and Coopersmith self esteem inventory was used to determine mental status and obtained results were compared with results of other studies and finally showed that there is a significant relationship between forward shoulder and self esteem (P<0.05), in a way that people with higher degree of forward shoulder have lower self esteem score.

Results of this research were in accordance with those of Canales et al who had compared depression status of 34 people with weak body posture with 37 people in control group, and also were in accordance with results of study by Babekir et al who had studied 35 people with hyperkyphosis in terms of depression. It is also in accordance with other studies similar to this field (Walker 2006; Riskind and Gotay, 1982). But it is in contradiction with results of the research by Wade where 39 teenagers with scoliosis were compared with 47 healthy teenagers. Lack of accordance between findings of his research and those of other studies could be related to type of participants and their age range. It should also be considered that participants of Wade’s study were volunteers from Scoliosis Associations and probably the effect of such associations has lead to these results.

Also results of current study were not in accordance with results of research conducted by Ghafoori et al where relationship between hyperkyphosis and anxiety among male athlete and non-athlete students selected from Tehran University had been investigated. It is possible to consider these results as a consequence of sex and athleticism of subjects.

Therefore according to the results of previous studies and results of this research it is possible to express that psychological factors such as self esteem could be an important factor in forming forward shoulder disorder and psychological factors should be considered while correcting people suffering this disorder. Considering results of this research it is possible to significantly help correction of this disorder by proper therapy of psychological factors. Although it should be considered that sex, economical status, culture, occupation, and inheritance could also affect incidence of disorders, since generally forward shoulder is a disorder in direction of shoulders, it is possible to consider it as a consequence of some psychological and developmental problems or internal diseases which could happen at any age. Therefore it is suggested for researchers to use other samples in further studies and also to discuss other effective factors and to study athletic people in terms of self esteem considering the possible effect of athletics.

REFERENCES