

A Study to Assess the Self-Concept of Adolescents with Orthopedic Impairment

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Abstract

Introduction: It is believed that an individual is disabled not because of his or her physical handicap, but because of the physical barriers prevalent in our society, The present study was undertaken by the investigator for identifying the self-concept of adolescents with orthopaedic impairment with a view to develop and evaluate guidelines for teachers to improve the self-concept of adolescents with orthopaedic impairment. **Methodology:** The sample for the study comprised of 60 adolescents with orthopaedic impairment and 30 teachers working in institutes for physically handicapped selected through purposive sampling technique and total enumeration technique, respectively. The Conceptual framework of the study was based on Stuart Stress Adaptation model related to self-concept responses. Structured questionnaires were used to assess the self-concept of orthopedically impaired adolescents and knowledge of teachers regarding self-concept of the adolescents. **Results:** The study revealed that majority of the adolescents with orthopaedic impairment had average level of self-concept. The intellectual self-concept was found to be the most affected area out of

all other (i.e moral, educational, temperamental, social and physical) areas of self-concept; but there was no significant relationship between level of self-concept and variables, viz; age, gender and cause of orthopaedic impairment in adolescents with orthopedic impairment. Maximum numbers of subjects' i.e.65% were from the age group of 17-19 years. The major cause of orthopaedic impairment in majority of the subjects (53%) was illness such as polio. In the second part of the study, guidelines developed for improvement of self-concept of adolescents with orthopaedic impairment were effective as evidenced from knowledge gain by teachers.

Key words: Self-concept; Adolescent; Orthopaedic impairment.

Introduction

The self-concept is an image which an individual has of himself or herself (Burns, 1982). Much of the psychological development of a person is bound up with the emerging sense of self, but in spite of its importance, the phenomenon of the self is one of the most difficult tasks to explain. Physical ability could be said to be crucial to the way an individual becomes conscious of, and develops a unique

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identity. It facilitates conceptualization by receiving stimuli, interpreting information and enabling response. It is also of paramount importance in the area of general mobility, maintaining body functions, and enhancing the whole early learning processes of social interaction, the building of self-esteem and the achievement of life goals. Therefore, the physical component plays an important role in the development of an individual (Cohen, 1978)¹, it could be argued that physical handicap probably affects self-concept formation most profoundly.

According to the Census of India 2001, there are 2.19 crore people with disabilities in India and this constitutes 2.13% of the total population. This includes persons with visual, hearing, speech, locomotor and mental disabilities. Seventy-five per cent of persons with disabilities live in rural areas, 49% of disabled population is literate and only 34% are employed. The earlier emphasis on medical rehabilitation has now been replaced by an emphasis on social rehabilitation.

Disability data as per the Census of India 2002

Movement	51%
Seeing	14%
Hearing	15%
Speech	10%
Mental	10%

{Source: National Sample Survey Organization (2002). [2]}

With the increasing population of India, the proportionate number of orthopedically impaired population also has a definite trend to increase. Rapid industrialization of the cities, street accidents, use of drugs and pills during pregnancy, air crashes, bomb explosions, etc. are liable to increase the number of orthopaedically impaired in an incredible manner. These various factors either alone or in combination can lead to orthopaedic impairment in a newborn or it can develop later in life stages. Orthopaedic impairment affects the self-concept formation profoundly,

especially if it happens in the vulnerable development stage of life, that is, adolescence.

At the adolescent age, an individual is actually conscious of the way he or she looks to others and is highly aware of his or her deviations from the normal in himself or herself and others. At this time, any physical impairment such as hearing or visual impairment, muscular or skeletal impairment, birthmarks, ears that stick out etc., assumes greater importance. Increasing awareness of these differences especially accompanied by unkind comments and taunts from other children may cause him or her to feel inferior and less desirable; this is especially true if the defect interferes with his or her ability to participate in childhood games and activities. Orthopaedic impairment is one of such defects, which affects the mental health of a child greatly (Barbara, 2001).

The study on orthopaedic disability and socioemotional functioning by Yagmurlu³ (2009) indicated that regular engagement in sports significantly predicted self-concept of adolescents with orthopaedic disability, and the predictive value of playing sport was significant even after differences in participants' age, sex and severity of the disability were taken into account. Emotional stability and sociability of adolescents with disability were predicted by sports playing but to a low degree. Study findings underline the importance of understanding social aspects of disability, and the positive association between playing sports and an individual's positive beliefs about oneself. [3]

The present study intended to explore the self-concept of adolescents with orthopaedic impairment because change in body image does affect the self-concept of an individual and those who have orthopaedic impairment undergo changes in the appearance and function of the body, which may in turn affect their self-concept. The main objectives of the study were:

- i. To assess the self concept of adolescents with orthopedic impairment.

- ii. To find the relationship between self-concept and selected variables, that are, age, gender, and cause of orthopedic impairment.
- iii. To develop and administer guidelines for teachers working in institutes for physically handicapped for improvement of the self-concept of adolescent with orthopedic impairment. To assess the knowledge of teachers regarding self-concept and
- iv. To check the utility and acceptability of the guidelines on improvement of self-concept of adolescents with orthopedic impairment for the teachers working in institutes for physically handicapped.

Methodology

To accomplish the objectives of the study, a quantitative research approach was considered the most effective. The study had two parts. For the first part, that is, assessment of the self-concept of adolescents with orthopaedic impairment, descriptive research design seemed to be most appropriate. For the second part, that is, for assessment of teachers' knowledge before and after administration of guidelines regarding self-concept and strategies used to improve the self-concept of adolescents with orthopaedic impairment, pre-experimental pre-test – post-test research design was used.

The study was conducted in two institutes for physically handicapped in Delhi after seeking formal administrative approval. The institutes were:

- Akshay Pratishtan Institute for Physically Handicapped, Vasant Kunj, New Delhi
- Vocational and Rehabilitation Centre for Physically Handicapped, Kar-Kar Dooma, Delhi

The sample for the study comprised of 60 adolescents with orthopaedic impairment and 30 teachers working in institutes for physically handicapped. Adolescents were selected through purposive sampling technique and

teachers were selected through total enumeration technique. The following instruments were developed in order to generate the data:

- A structured self-concept measuring scale to assess the self-concept of adolescents with orthopaedic impairment.
- A structured questionnaire to assess the knowledge of teachers working in institutes for physically handicapped regarding self-concept.
- A structured opinionnaire to determine the acceptability and utility of guidelines on improvement of self-concept of adolescents with orthopaedic impairment for teachers working in institutes for physically handicapped.

To ensure the content validity of the structured self-concept measuring scale, it was submitted to nine experts from the field of nursing, psychiatry, psychology and education. The reliability of structured self-concept measuring scale was calculated by using the Cronbach's alpha formula and the tool was found to have a reliability of 0.56. The reliability of structured knowledge questionnaire was calculated by Kuder Richardson-20 (KR-20) formula. The reliability coefficient was found to be 0.85. Thus, the questionnaire was found to be reliable.

The guidelines were prepared keeping in view the self-concept of adolescents with orthopaedic impairment and to equip the teachers working in institutes for physically handicapped with knowledge to improve the self-concept of adolescents with orthopaedic impairment. The data collection was carried out in different stages as explained in Table 1.

Results

Descriptive and inferential statistics was used to analyse and interpret the obtained data. The summary of the findings of the study is given below:

Data Collection Process

Group	Day	Pre-test	Activity/Intervention	Post-test
Group-1 (Adolescents)	1-6		Assessment of self-concept	
Group-2 (Teachers)	1-6	Administration of knowledge questionnaire		
Group-2 (Teachers)	14		Administration of guidelines	
	18			Administration of knowledge questionnaire and opinionnaire

I. Findings on sample characteristics, of adolescents under study:

Majority of the subjects, that is, 39 (65%) adolescents were from the age group of 17 to 19 years. 32 (53%) had orthopaedic impairment because of illness, such as poliomyelitis.

II. Findings on assessment of self-concept of adolescents with orthopaedic impairment:

Majority of the adolescents, that is, 40 (66.66%) had average level of self-concept; 11 (18.33%) had good self-concept, whereas 9 (15%) had poor self-concept. The intellectual self-concept was found to be the most affected area out of all other (i.e moral, educational, temperamental, social and physical) areas of self-concept.

III. Findings related to relationship between self-concept scores of adolescents with orthopaedic impairment and selected variables like, age, gender and cause of orthopaedic impairment:

There was no significant relationship between level of self-concept and variables, namely, age, gender and cause of impairment of adolescents with orthopaedic impairment.

IV. Evaluation of the knowledge of teachers working in institutes for physically handicapped regarding self-concept and strategies used to improve the self-concept of adolescents with orthopaedic impairment:

As represented in figure 1 above, most of the teachers obtained a higher post-test knowledge score than the pre-test knowledge score, suggesting an increase in knowledge after the administration of the guidelines.

V. Evaluation of the guidelines for improvement of self-concept of adolescents with orthopaedic impairment in terms of acceptability and utility of the guidelines for the teachers working in institutes for physically handicapped:

64%, that is, more than 50% subjects expressed that they strongly agreed with the statements given in opinionnaire.

Discussion

The present study focussed on the self-concept of adolescents with orthopaedic impairment and it was found that two-third

Figure 1: A Column Graph Comparison of Pre-Test and Post-Test Knowledge Scores Obtained by Teachers Working in Institutes for Physically Handicapped



of adolescents with orthopaedic impairment had average level of self-concept. Ittyerah and Kumar (2007) conducted a study on the actual and ideal self-concept in disabled children, adolescents and adults, which indicated that children had a more positive self-concept than adolescents and adults.^[4]

Cohen (1978) found that the physical component of self-concept is an important factor in the development of the individual. Similar findings were observed in the present study, wherein the physical component was found to be the second most affected area of self-concept of adolescents with orthopaedic impairment.^[1]

Although a structured self-concept assessment scale was administered by interview, the adolescents were also asked to express their feelings in relation to their orthopaedic impairment and also give suggestions. They expressed a desire to play games and sports especially as they watched others play on television or otherwise. Yagmurlu (2009) also indicated that regular engagement in sports significantly predicted self-concept of adolescents with orthopaedic disability and the predictive value of the playing sport was significant even after difference in participant's age, sex and severity of the disability were taken into account.^[3]

Another open-ended question brought out few suggestions given by adolescents with orthopaedic impairment. The suggestions as listed below were incorporated in the guidelines as recommendations.

- Institute can make arrangement for home pick and drop facility with special buses with ramps, or with a helper who can help adolescents to board the bus.
- The door of bus should be wider for letting in adolescents using wheelchairs.
- Institute can also provide hostel facility to avoid daily travelling.
- All public transports and public physical facilities should have ramps to make them accessible for people with orthopaedic impairments.

- Educational institutions should have ramp/lift.
- Adolescents with orthopaedic impairment and especially with wheelchair face difficulty in using toilets. It would be better to provide western seat toilet rather than Indian seat.
- The door to enter the toilet should be wide enough to let a wheel chair in. Toilet should have side rail for support to facilitate transfer from wheelchair to toilet seat and back. All public places should have such toilet facilities separated and earmarked for people with orthopaedic impairment.

Implications

The findings of the study have several implications in the field of nursing:

- School nurse can administer the guidelines for improvement of self-concept of adolescents with orthopaedic impairment as they will be useful to improve the self-concept of adolescents with orthopaedic impairment in institutes for physically handicapped.
- In Psychiatric Nursing more emphasis should be given on family education especially how to deal with adolescents with orthopaedic impairment in family.

Conclusion

The self-concept is an image which an individual has of himself or herself and the physical component plays an important role in the development of an individual. As adolescents are considered at high risk and it is a commonly held belief that adolescence is a time of conflict and turmoil, adolescents, especially with orthopaedic impairment, are at risk for low self-concept, which puts direct impact on all aspects of their life. Every individual is highly influenced by the teacher in his/ her life, so a teacher can play a vital role in improving the self-concept of an

adolescent with orthopaedic impairment. Hence the study was done to assess the self-concept of adolescents and to assess the knowledge of teachers working in institutes for physically handicapped regarding self-concept, and the guidelines were developed accordingly for teachers and administered to improve the self-concept of adolescents with orthopaedic impairment. This intervention was found effective as evident from significant knowledge gain by teachers working in institutes for physically handicapped.

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