

# Comparison of the effects of physical education and sports course for the handicapped on the attitudes of sports science students towards the handicapped

Ömer Sivrikaya\* and Serpil Bülbül Kardaş

Faculty of Sports Science, Düzce University, Turkey.

Accepted 26 October, 2021

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## ABSTRACT

It is an important research topic to what extent the training received by the prospective teachers in order to have positive attitudes towards the handicapped is successful. This study aims to evaluate the effect of physical education and sports course for the handicapped on the attitudes of sports science students towards the handicapped. In the study, the "Attitude Toward Disabled Persons (ATDP) Scale", which was developed by Yuker and Block (1986) and adapted to Turkish by Özyürek (2006), was used as a data collection tool. The reliability coefficient of the scale was .67-.83, and the test-retest reliability coefficient was .76. A total of 76 students from Bülent Ecevit University School of Physical Education and Sports (n = 40) and Düzce University Faculty of Sport Sciences (n = 36) formed the study group who taking physical education and sports courses for the handicapped in the 2017-2018 academic year. The Kolmogorov-Smirnov test and independent samples t-test were used to analyze the data. Descriptive analyzes were conducted to determine the level of attitudes of the participants towards people who were handicapped. As a result of the research, it was determined that the attitude scores of the study group towards the handicapped were higher for the participants whose school type is faculty than those of the college. A difference in other parameters could not be detected.

**Keywords:** Handicapped, physical education and sports, attitude.

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\*Corresponding author. E-mail: omersivrikaya@duzce.edu.tr. Tel: +905057733555.

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## INTRODUCTION

There are individual differences wherever man exists. Each individual's physical structure, strengths and weaknesses, limitations, competencies, interests and abilities, emotional characteristics, learning characteristics, and speed differ from each other. Contemporary education in the developing world is planned by considering individual differences to provide services in line with the needs of individuals. However, the general education system is designed to meet the needs of individuals with personal differences within certain limits, or individuals with average competence and capacity (Doğru, 2004).

In addition to healthy individuals with normal development, there are individuals in every society who differ significantly from the individual characteristics of their peers and need special education due to their

special needs. According to Kargın (2004), individuals with special needs are individuals with different needs than their peers in terms of their physical, mental, emotional, and social characteristics.

It is known that sports activities, which are regarded as one of the most important factors of a healthy life, contribute to a peaceful life for individuals with handicaps both themselves and their society.

People with handicaps need sports as much as ordinary people. In addition to bringing the handicapped person to society and production, sports will strengthen his strong body muscles and make his daily life easier (Kalyon, 1996). Sport is used as a therapy tool in the education and rehabilitation of the handicapped in today's world. The positive effects of the sport of the handicapped individual are reflected directly on the handicapped

person, his family, the business environment, and society. Increasing the communication between individuals and sports for the handicapped; means to develop initiative and integration (Gür, 2001).

As well as attitudes about individuals, objects, and concepts that occur in the life of the individual, they also have attitudes about individuals with handicaps, and these attitudes can determine behaviors towards these individuals in social settings (Tasa and Mamatoğlu, 2018). "The positive, neutral, and negative effects of individuals affected by disability in societies have various effects on the attitudes of individuals with normal development" (Payne, 2014).

Although important steps have been taken to ensure the participation of individuals with disabilities in all areas of life, both in the world and in our country, it does not seem possible yet that people with disabilities are accepted as any other people in the society and do not face bias due to their disabilities. It has been reported that the most important source of stress in the lives of people with disabilities is negative social attitudes (Voh, 1993). In recent years, Turkey's varied perspectives on people with handicaps. The idea is that people with handicaps are part of society and that a more conscious society will be created with the help of them rather than escape from them (MEB, 2000).

The best way to enable disabled individuals to adapt to education and society successfully, to change the attitude of the society towards the disabled and the sports of the disabled, is the schools that provide education with education and especially physical education curriculum (Sherrill, 1998; Evaggelinou, 2006). Education is an important factor in determining the attitude towards the disabled individual.

The students who have taken sport with disabilities classes have been seen to be more positive on supportive dimensions. It is known that taking sports classes with disabled people provides the students' attitudes toward disabled people more positive feelings (Craig, 1991; Rowe and Stutts 1987; Stewart, 1990). Expectations and attitudes of those with disabilities are important in the education and rehabilitation of disabled individuals. It is necessary to change the attitudes of the teacher candidates with negative and different attitudes towards the disabled person in a positive way to be successful in the mainstreaming class in schools (Bacon and Scuhultz, 1991).

Tait and Purdie (2000) examined the importance of training teachers before they start teaching in developing positive attitudes towards disabled individuals. They stated that if teachers do not have positive attitudes before they start coaching in the mainstreaming program, it will be unmanageable to change negative attitudes in the school environment. Many studies have been conducted examining the attitudes of university students towards the disabled (Craig, 1991; Hodge, 1998; Mathews et al., 1998; Özyürek, 1995; Tait and Purdie,

2000; Wishart and Manning, 1996).

The positive attitude of the teachers enables them to support their students more safely in the mainstream class and to adapt the classroom materials pleasantly and appropriately (Buell et al., 1999). Therefore, preparing and educating prospective teachers who will work with children with handicaps without encountering these children may enable them to develop more positive attitudes.

The acceptance of teachers' attitudes towards individuals affected by handicap is an important variable that directly affects the more effective implementation of programs developed for them, and the correct implementation of environmental regulations and instructional adaptations (Özyürek, 2010).

Educating teacher candidates as educators with a positive attitude towards children with handicaps will enable education and training activities to become more qualified and enable handicapped people to successfully adapt to society as independent, productive individuals (Alptekin and Batık, 2013).

This study aims to investigate the similarities and differences between the attitudes of students who take physical education and sports courses for the disabled in different universities. In this comparison, it was investigated which factors were effective according to which variables.

## METHODOLOGY

### Sample and data collection

This research is descriptive research designed to examine students' attitudes towards people with disabilities. The study group consists of 76 students studying at Bülent Ecevit University Sports School (n=40) and Düzce University Sports Sciences Faculty (n=36) during the 2017-2018 period and taking "Physical Education and Sports for the Handicapped" course. More study groups were expected. However, the number remained low as participation was entirely voluntary. In the research, the personal information form developed by the researchers and the "Attitude Toward Disabled Persons (ATDP) Scale" developed by Yuker and Block (1986) and adapted into Turkish by Özyürek (2006) was used to determine the attitudes of the students. The purpose of the scale is to measure the attitudes towards people affected by disability in general, without separating disability groups in particular. The reliability coefficient of the scale is .67-.83, and the test-retest reliability coefficient is .76. There are 20 items on the scale. Each attitude on the scale is scored on a 6-point Likert type. 1. Strongly agree, 2. Agree, 3. Slightly agree, 4. Slightly disagree 5. Disagree 6. Strongly disagree. Anderson (1981), uses an even number of options because subjects who scored 0 on the option "I

am undecided" or undecided avoid stating their correct preferences (Köklü, 1995). Due to the lack of undecided items in this scale, the subjects have difficulty in giving positive or negative answers (Alptekin and Batık, 2013).

### Data analysis

Necessary explanations about the scale were made to the students who voluntarily participated in the study, and the participants were asked to fill the scales. It was collected after the participants were given a certain time to fill the scale. After the scales were filled, all scales were examined by the researcher, it was determined that a total of 76 scales were filled without errors and the analyzes were made on 76 forms.

In the research, the scores the participants got from the (ATDP) Scale; gender, age, type of school, presence of disabled people among their relatives, sensitivity to disabled people, desire to be in the same environment with disabled people and willingness to help disabled people.

According to the results of the Kolmogorov-Smirnov test, it was determined that the (ATDP) Scale shows normal distribution ( $K-S = 0.06$ ;  $p > 0.05$ ). Accordingly, parametric tests (independent sample t-test) were used to analyze the data. Data were analyzed using SPSS 25.0 statistical software. Analysis results were handled at a 95% confidence level and  $p < 0.05$  values were considered statistically significant. Descriptive analyses were conducted to determine the level of attitudes of the participants towards people affected by disability.

## RESULTS

For the study, the minimum and maximum values, mean and standard deviation values of the scores obtained from the participants' (ATDP) scale were calculated.

**Table 1.** Descriptive information on the scores obtained from the ATDP scale.

| Variable  | N  | Minimum | Maximum | $\bar{X}$ | Ss    |
|---|----|---------|---------|-----------|-------|
| Attitude score for persons affected by disability | 76 | 25      | 88      | 55.66     | 13.83 |

From Table 1, it is seen that the general attitude averages that the participants obtained from the (ATDP) Scale changed in the range of the lowest  $X_{avr} = 25$  and the highest  $X_{avr} = 88$ , and their averages were  $55.66 (\pm 13.83)$ . The scores obtained from the (ATDP) Scale range from 0 to 120. According to this information, it can be said that the attitudes of the participants towards people affected by disability are close to medium level.

**Table 2.** Comparison of the scores obtained from the ATDP scale by gender.

| Variable  | Gender | N  | $\bar{X}$ | Ss    | t     | p    |
|---|--------|----|-----------|-------|-------|------|
| Attitude score for persons affected by disability | Female | 35 | 54.94     | 14.29 | -0.41 | 0.68 |
|   | Male   | 41 | 56.27     | 13.57 |       |      |

From Table 2, it is seen that while the average of female participants is 54.94 according to the gender variable, the male participants are 56.27 and the p-value is .68 ( $p > 0.05$ ). It has been determined that the attitudes of women and men participating in the study towards people affected by disability are similar.

**Table 3.** Comparison of the scores obtained from the ATDP scale towards persons affected by disability by age groups.

| Variable  | Age   | N  | $\bar{X}$ | Ss    | t     | p    |
|---|-------|----|-----------|-------|-------|------|
| Attitude score for persons affected by disability | 20-25 | 69 | 55.57     | 13.95 | -0.18 | 0.86 |
|   | 26-30 | 7  | 56.57     | 13.51 |       |      |

As shown in Table 3, the average of 69 participants between the ages of 20-25 was 55.57. The average of 7 participants between the ages of 26-30 is 56.57 and the p-value is .86 ( $p > 0.05$ ). There is no clear difference between the groups. This may be due to the close number of participants.

**Table 4.** Comparison of the scores obtained from the ATDP scale by school type.

| Variable  | School type | N  | $\bar{X}$ | Ss    | t    | p    |
|---|-------------|----|-----------|-------|------|------|
| Attitude score for persons affected by disability | Faculty     | 36 | 62.31     | 12.51 | 4.45 | 0.00 |
|   | High school | 40 | 49.68     | 12.23 |      |      |

As shown in Table 4, the school type of the 36 participants is faculty and the average is 62.31, while the school type of the 40 participants is high school and the average is 49.68. P-value appears to be .00 ( $p < 0.05$ ). There is a significant difference between the groups. It was understood that the faculty students participating in the study approached the attitude scale towards the people affected by disability more sensitive and had a high positive attitude.

**Table 5.** Comparison of the scores obtained from the ATDP scale according to the status of disabled individuals in the near environment.

| Variable  | Relatives | N  | $\bar{X}$ | Ss    | t     | p    |
|---|-----------|----|-----------|-------|-------|------|
| Attitude score for persons affected by disability | Yes       | 19 | 52.68     | 15.29 | -1.08 | 0.28 |
|   | No        | 57 | 56.65     | 13.30 |       |      |

As shown in Table 5, 19 participants answered "yes" to the question of "Do you have a disabled person in your family or relatives?" in the immediate vicinity and 57 participants answered "no" while their average was 52.68, and the mean was 56.65. The P-value appears to be .28 ( $p > 0.05$ ). While it is expected that there will be a significant difference between the groups, it could be that there is no significant difference and the number of participants is not balanced.

**Table 6.** Comparison of the scores obtained from the ATDP scale according to feeling responsibility towards persons with disabilities and not feeling.

| Variable  | Responsibility | N  | $\bar{X}$ | Ss    | t    | p    |
|---|----------------|----|-----------|-------|------|------|
| Attitude score for persons affected by disability | Yes            | 73 | 56.04     | 13.93 | 1.20 | 0.24 |
|   | No             | 3  | 46.33     | 7.09  |      |      |

As shown in Table 6, 73 participants said "yes" to the participants' "Do you feel responsible for individuals with disabilities?" and the average was 56.04; 3 participants answered no and the mean was found to be 46.33. The p-value was found to be .24 ( $p > 0.05$ ). It was understood that the attitudes of the participants who stated that they felt responsibilities towards handicapped people and those who did not, had similar levels of attitude towards people affected by disability.

"Would it bother you to be in the same environment with people with disabilities?" While two participants answered "Yes" to the question, the average of these was 39.00, while the average of 74 participants who answered "No" was 56.11 (Table 7).

**Table 7.** Comparison of the scores obtained from the ATDP scale according to the desire to be in the same environment with the disabled individuals.

| Variable  | Environment | N  | $\bar{X}$ | Ss    | t     | p    |
|---|-------------|----|-----------|-------|-------|------|
| Attitude towards persons affected by disability | Yes         | 2  | 39.00     | 8.49  | -1.75 | 0.08 |
|   | No          | 74 | 56.11     | 13.70 |       |      |

The P-value is .08. ( $P > 0.05$ ). It was understood that the attitudes of the participants, who stated that they were uncomfortable with being in the same environment with the handicapped and that they were not bothered, were at a similar level with their attitudes towards the handicapped.

**Table 8.** Comparison of the scores obtained from the ATDP scale according to whether they help them with disabilities faced by disabled persons.

| Variable  | Difficulties | N  | $\bar{X}$ | Ss    | t    | p    |
|---|--------------|----|-----------|-------|------|------|
| Attitude towards persons affected by disability | Yes          | 74 | 56.01     | 13.83 | 1.37 | 0.17 |
|   | No           | 2  | 42.50     | 3.54  |      |      |

As shown in Table 8, 74 respondents say yes to the question of "Would you help them with the difficulties faced by disabled people?" p-value appears to be .17 ( $p > 0.05$ ). It was understood that participants' attitudes towards the people affected by the disability were similar, stating that they helped or did not help them with the difficulties they face.

## DISCUSSION

As a result of the research, findings related to whether physical education and sports lessons for disabled people differ according to some variables in their attitudes towards disabled people are discussed and interpreted.

When analyzing Table 1, it is seen that the average attitude scores obtained by the participants participating in the study from the (ATDP) Scale vary, and the averages are 55.66 ( $\pm 13.83$ ). According to this information, it can be said that the attitudes of the participants towards people affected by disability are close to medium level.

For the research, the scores obtained from the scale in Table 2 were compared by gender. According to the findings, it is understood that the attitude scores towards the people affected by disability do not show a significant difference according to gender ( $p > 0.05$ ). While there are findings in the literature (Kaner, 2000; Çolak and Çetin, 2014; Nowicki and Sandieson, 2002) that gender does not make a significant difference in terms of disability perception, gender variable leads to a difference in attitudes towards disabled people and women have more positive attitudes towards disabled people than men. There are also findings related to Kargin (2001), Hergenrather and Rhodes (2007), Findler et al. (2007), Şahin and Bekir (2016), Gençtürk and Korkut (2020) and Vural et al. (2018).

Participants at different age groups were found to have similar attitudes towards people affected by disability (Table 3). Gençtürk and Korkut (2020) could not find any significant difference in attitude towards disabled people in any sub-dimension in the age variable.

In the research, the scores obtained from the scale were compared according to the type of school (Table 4). According to the findings obtained, it is understood that the scores obtained from the scale differ significantly according to the type of school ( $p < 0.05$ ). It was understood that the faculty students participating in the research were more sensitive to the attitude scale towards people affected by disability and had higher positive attitudes than college students. In a similar study, Şahin and Güldenoğlu (2013) determined that there was

no significant difference in the sub-dimensions of attitudes towards individuals with disabilities according to school type. This situation may be due to the difference in the course content in schools, the style of the instructor, and the readiness of the students. In Table 5, it is understood that the attitude scores towards the people affected by disability do not show a significant difference according to the presence or absence of disabled individuals in the immediate environment ( $p > 0.05$ ). It was understood that the attitudes of people with and without disabilities in their immediate vicinity were similar to those affected by disability.

Çolak and Çetin (2014) found that those with disabilities in their families had a higher perception of disability. Kargin and Baydik (2002) found that students' attitudes towards people with disabilities differ significantly according to the presence of individuals with disabilities in the family and the immediate environment.

In a research by the Ministry of Family and Social Policies (2002), it was determined that the attitudes of people with disabilities among their families or relatives towards disabled people were significantly more positive than those with disabilities in family members or relatives. In the research of Gençtürk and Korkut (2020), the mean scores of university students who have family, relatives, or relatives with disabilities in their families, relatives, or close relatives with the sub-dimensions of interpersonal relations and competence-independent living are the highest, while the average score of those without a disabled relative is the lowest.

In Table 6, the scores obtained from the scale were compared according to the state of feeling or not feeling responsibility towards the handicapped. It was understood that the attitudes of the participants who stated that they felt a responsibility towards the handicapped and those who did not, towards the people affected by the handicap were at a similar level. Griffin et al. (2012) found that college students have positive attitudes toward peers with disabilities and are comfortable attending classes where students with disabilities were included.

In Table 7, it is understood that the attitude scores towards people affected by disability did not differ significantly according to the desire to be in the same

environment as disabled people ( $p > 0.05$ ). It was understood that the attitudes of the participants, who stated that they were uncomfortable and not bothered to be in the same environment with disabled people, were at a similar level. In his research, Gençtürk and Korkut (2020) and Ünal and Yıldız (2017) found that the society did not reach the desired level of consciousness in terms of being in the same environment with the disabled although it varies according to the type of disability.

In the study, when the scores obtained from the scale are examined according to whether they help them with the difficulties faced by disabled people (Table 8), it is understood that the attitude scores of the participants do not differ significantly according to whether they assist them in the difficulties faced by disabled people ( $p > 0.05$ ). It was understood that participants' attitudes towards the people affected by the disability were similar, stating that they helped or did not help them with the difficulties they face. Tait and Purdie (2000) examined the importance of educating teachers before they start teaching in developing positive attitudes towards disabled individuals. They stated that if teachers do not have positive attitudes before they start teaching in the mainstreaming program, it will be very difficult to change negative attitudes in the school environment.

Rowe and Stutts (1987) gave the physical education and sports course for the disabled to the students of the department of physical education and sports teaching for 12 weeks with theoretical and practical applications. They reported that 63% of their attitudes were negative and 26% of their attitudes were turned positive.

Hodge (1998) applied PEATID - III (The Physical Educators' Attitude Toward teaching Individuals with Disabilities-III) to the group who took and did not take physical education and sports lessons for the disabled. They found that the attitudes of physical education and sports department students towards children with moderate and mild intellectual disabilities, who have learning disabilities, have positive changes in their attitudes towards children with learning disabilities, although there are positive changes in emotional and mentally disabled children.

## Conclusion

It has been observed that the physical education and sports course for the disabled, which is in the curriculum of Physical Education Teaching, can provide a certain level of information and awareness-raising characteristics and contribute to the positive development of attitudes towards disabled individuals.

However, it has been observed that even those taking special education courses at the university level, there is not enough sensitivity towards disabled people yet. The high sensitivity of those with disabled relatives has made the quality of the education received by the participants, who were assumed to have received the highest level of

education as a prospective teacher, controversial.

To further understand the roles of attitudes in the education of disabled students and the preparation of future teachers in preservice education, research in this area must continue (Stewart, 1990).

## RECOMMENDATIONS

The results of this study showed that there is a need for more studies prepared with different research designs with more schools and participants on the subject. In future studies, the change in attitudes towards people with disabilities and the effectiveness of this application and interaction can be examined in addition to informing. Since the individual should be informed about disabled individuals at an early age for positive attitudes to be formed in the individual, environments in which they will interact with disabled individuals should be provided both by their families and in their school life. In this sense, inclusive education should be supported.

A special education program for branches that have been standardized by the Higher Education Council for all departments that train teachers should be prepared. These programs should be enriched with practices based on mutual interaction to develop sensitivity and responsibility. The quotas of disabled students who have been neglected for various reasons in universities, especially in physical education teaching departments, should be followed by the Higher Education Council. It is recommended that the same quotas are given in graduate programs and more academic studies are encouraged on the subject.

For disabled individuals not to have problems in their daily lives and social relations, activities that will enable them to socialize with disabled individuals should be planned in social areas, and realistic informatics studies should be carried out to ensure that disabled individuals are self-sufficient, strong, productive and creative.

## Limitations

This research is limited to only two schools and a total of 76 students studying in the department of physical education and sports teaching and taking the physical education and sports course for the disabled. The study covers only one academic year. Data were collected by only one researcher. The study group participating in the research was made with those who voluntarily wanted to participate in the study that was introduced and could spare time.

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**Citation:** Sivrikaya, Ö., and Kardaş, S. B. (2021). Comparison of the effects of physical education and sports course for the handicapped on the attitudes of sports science students towards the handicapped. *African Educational Research Journal*, 9(4): 877-883.

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