

THE INFLUENCE OF PARAOLYMPIC AND SPECIAL PROGRAMS IN CHILDREN WITHOUT DISABILITIES-SYSTEMATIC REVIEW RESEARCH

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SUMMARY

Introduction: Children with disabilities have a low level of acceptance by their peers. Applying Paralympics programs to people without disability could change their attitudes towards people with disability. Method: The scientific works from the following electronic databases were searched: PubMed / Medline, Cihnal, Embase, Open-J-Gate, ScienceDirect, Google Scholar and Kobson. The requested works were published between 2008 and 2021. Criteria for inclusion are divided into four parts: study strategy, study design, type of measurement results, exclusion criteria. The procedures were conducted in accordance with the statement of Preferred Reporting Items for Systematic Reviews (PRISMA). Results: Of the 110 papers included in the review, 11 works were taken for in-depth analysis on the basis of which a conclusion was made. Conclusion: Paralympics programs have had a positive impact on the attitudes of children without disability.

Keywords: Paralympics sport, disability, physical activity, visual impairment, physical education, awareness

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INTRODUCTION

Students' attendance to classes of physical education is satisfactorily, but an intensity of exercising at classes is low (Đokić et al., 2011; Mitrović, 2016), while, on the other side, the obesity incidence among school children is all the higher (Goran, & Treuth, 2001). At school children lose an interest for activities which are not competitive, interesting, new and challenging ones for their abilities. Disabled children have a low level of acceptance by their peers. Negative attitudes and a low level of acceptance result in their exclusion from activities, including physical education as well. In order to increase a social awareness, understanding and acceptance, disability awareness program should focus on abilities, but not on limitations of individuals with disability (Frese, & Yun, 2007). Accordingly, application of Paralympics' sports in physical education classes would significantly influence the raising of awareness in children without disability towards disabled children, and it could arouse interest and motivation for the activity due to specificity of sport (Ješina et al., 2006).

In order to familiarize children with Paralympics sport, it is necessary to enable them to introduce with the elements of sports intended for children with disability. When children have a sense of contact with others who are different than them, prejudices lessen and thus empathy occurs. The introduction of Paralympics sports or some of their elements which are intended for disabled persons at physical education classes could connect and identify students with Paralympics athletes to find what is common to them, unifying traits which would dispel myths and change their attitudes towards persons (Allport, 1935; Özer et al., 2012).

Opportunities of Paralympics sport do not relate only to development of motoric abilities, but it can be also part of a context of physical education at school, in order to increase understanding in students about differences, as well as that sport phenomenon can be available to everyone (Salerno, 2008).

Watching Paralympics sports and specific sport equipment, debating with sport adaptations of their rules, also efficiently brings about a change in attitudes towards persons with disability (Xafopoulos et al., 2009; Baran et al., 2013). Significant impressions on changes in attitudes towards persons with disability, surely, has a contact with disabled persons (Pérez et al., 2019). The goal of this transparent work is to carry out analysis of application and impact of Paralympics and programs of that kind on raising the awareness towards children with disability in children without disability.

METHOD

Research strategy

In order to access relevant studies, it was necessary to use the following electronic databases: PubMed/Medline, Cihnal, Embase, Open-J-Gate, ScienceDirect, Google Schollar and Kobson. The required works were published between 2008 And 2021. These are the following key words used during a research: *Paralympics sport, disability, physical activity, visual impairment, physical education, awareness*. All procedures relevant to the identification of the works have been carried out in accordance to the statement of Preferred Reporting Items for Systematic Reviews (PRISMA).

Type of study

The revision has encompassed newspaper articles written in English and Spanish, published during last 13 years. The scientific works taken into consideration, have researched effects of program exercises intended for disabled persons and their impact on persons without disability.

Type of measurement results

Analyzed scientific articles related to researches which examined the impact of the program.

Exclusion criteria

These are the following exclusion criteria: The studies which haven't related to application of sports which have been intended for disabled persons to persons without disability.

Data analysis

Table 1 provides analysis of 11 studies which have met set criteria. The following parameters have been shown in the table in accordance to the Conventions of systematic reviews: author, population, and data on sample of participants (a number of participants, a gender and age group), treatment, tests and results.

Picture 1. Process of collection, analyzing; elimination of collected data has been shown

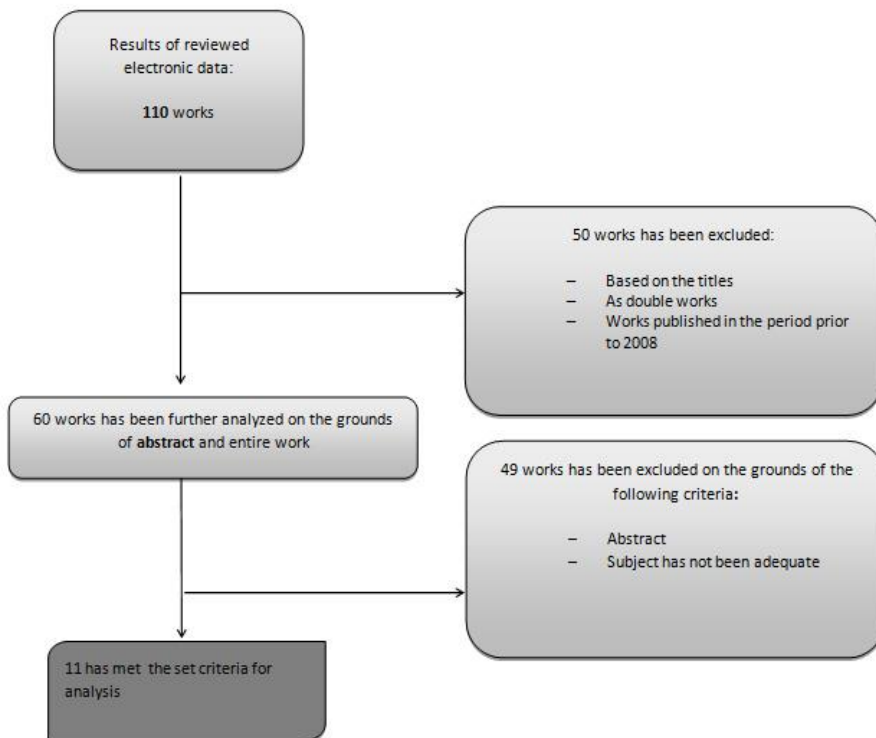


Table 1 – Summary of characteristics of all studies meeting inclusion criteria

References	Population	Age	Treatment	Duration	Test	Results
Panagiotou et al. (2008)	Students	n=86m) (n= 92 ž) ± 11.59	“Paralympics School Day”	2 years	Questionnaire CAIPE-CZ (modified from CAIPE-R, Block, 1995);	Improvement of positive attitude towards disability
Xafopoulos et al. (2009)	Students	n=42m) (n= 29 ž) ± 11.33	“Paralympics School Day”	1 day	Questionnaire CAIPE-CZ (modified from CAIPE-R, Block, 1995); Adjective checklist (Siperstein, 1980)	Improvement of positive attitude towards disability
Liu et al. (2010)	Students	n=17m) (n= 19 ž) ± 11,78	“Paralympics School Day”	1 day	Questionnaire CAIPE-CZ (modified from CAIPE-R, Block,	Paralympics School Day can change an attitude of participants

					1995); Adjective checklist (Siperstein, 1980).	towards persons with disability
Özer et al. (2012)	Boys with intellectual disability and without disability	(n=76 m) 12 - 15	Olympics (SO) Unified Sports (UNS)	10 weks,3 sessions per week, lasting 90 min	Child behavior Checklist (CBCL); The friendship activity scale (FAS); Adjective Checklist (ACL)	Program is efficient in improvement of attitude of young people without disability towards participants with disability
Baran et al. (2013)	Boys with intellectual disability and without disability	(n=76 m) 12 - 15	(UNS) program	8 weeks, 3 sessions a week lasting 90 min	Brockport physical fitness test (BPFT; Winnick & Short, 1999); Measurement of anthropometrical characteristics; Football Athletes Skills Assessment	Program has been efficient in the increase of fitness and performances in football skills of young people with a moderate disability, as well as those without disability
Moore, & Nettelbeck, (2013)	Students	(n=156 m) 11.6 - 15.2	(DAP) program	4 weeks, 3 sessions lasting 55 min	Questionnaire Chedoke-McMaster; Just Like You	Program has positively influenced the raising of disability awareness
Papaioannou et al. (2013)	Campers	n=387 ±13,25	"Paralympics School Day"; "So Get into It" program	20 days, every day dan, lasting 35 min	Questionnaire CAIPE-CZ (modified from CAIPE-R, Block, 1995);	Combined program of „Paralympics School Day “ and „That’s why you should join“ has efficiently influenced the change of attitudes towards peers with disability.
Campos, & Fernandes, (2015)	Students	(n=56m) (n= 53 ž) 12 - 16	Program, the "Paralympics Week"	1 week, every day, lasting 120 min	Questionnaire CAIPE-CZ (modified from CAIPE-R, Block, 1995);	Paralympics week program has influenced on improvement of positive attitudes of students without disability
Mckay et al. (2015)	Students	(n=72m) (n= 71 ž) 12 - 16	"Paralympics School Day"	1 day	Questionnaire CAIPE-CZ (modified from CAIPE-R, Block, 1995); Adjective Checklist (Siperstein, 2006)	PSD program has contributed to positive attitudes of students towards inclusion of disabled students in the environment of physical education.

Mckay et al. (2019)	Students	n=147 11-12	"Paralympics School Day"	1 day	Questionnaire CAIPE-CZ (modified from CAIPE-R, Block, 1995); Adjective Checklist (Siperstein, 2006)	Experience gained through PSD program has changed attitudes and perceptions towards persons with disability
Pérez et al. (2019)	Students	(n=35m) (n=53ž) ± 11.29	Para-Sports Awareness Program (PSAP)	7 days	Spanish version of questionnaire CAIPE-CZ	Intervention proves the efficiency of applied PSD-program in improvement of students attitudes towards disability.

RESULTS

The process of collection, analyzing and elimination of collected data has been shown on the picture. On the grounds of key words, 110 works has been identified, 50 have been excluded on the grounds of a title, double works and the ones published in 2008. 60 works have been analyzed on the grounds of abstract which is not subject-related and not sufficiently researched, out of which 49 have been excluded for abstract which has not been in accordance to the subject, not sufficiently researched. Only 11 works have met the set criteria on the grounds of which the analysis of this work has been carried out. The mere number of 11 works indicates that the subject has not been sufficiently researched. The works which have been analyzed have been shown according to reference criteria (the initial letter of an author's name and a year of publication), population (disabled persons), participant sample (age, total number of participants), treatment, tests and results which have been achieved.

Panagiotou, Evaggelinou, Doulkeridou, Mouratidou and Koidou (2008) have had a goal in their research reexamine the impact of the program (PSD) on the students' attitudes of the fifth and sixth classes. Implementation of the program (PSD) in classes of physical education has proved as an efficient pedagogical method for raising awareness, understanding and development of students towards persons with disability.

In the research of Xsafopoulos, Kudlacek, and Evaggelinou (2009), the program has been made up of simulation of sports which are intended for persons with disability. Girls have shown statistically significantly positive attitude towards disability after the training, while boys have shown moderate, but still not statistical improvement.

The research carried out by Liu, Kudlaček and Ješina (2010) over 36 students has had the aim to determine the impact (PSD) on school children attitudes

towards persons with disability. Paralympics School Day can change the participants' attitude towards persons with disability, but only if certain activities have been organized. Girls have had a better relationship towards disabled person than children prior, during and after the intervention.

The aim of the research carried out by Özer et al. (2012) was to examine the effects of football program of Special Olympiad (SO) Unified Sports (UNS) on physiological attributes in young people with or without intellectual disability. The program is efficient in improvement of an attitude of young people without disability towards participants with disability.

Applied program Unified football, which has expanded in the research Baran, Aktop, Ozer, Nalbant, Aglamis, Barak, & Hutzler (2013), has proved as efficient in boys with intellectual disability and without disability.

In the research of Moore and Nettelbeck (2013) the aim was to think up, implement and measure the effects of the program of disability awareness (DAP) for secondary school students. Interactive discussion was successful; the program has positively influenced the raising awareness on disability.

The aim of Papaioannou et al. (2013) was to examine the impact of the disability awareness program on the attitudes of children without disability towards inclusion of students with disability in the summer camp. This one and similar programs can be efficient pedagogical means for raising awareness and developing a positive attitude towards persons with disability.

The results of a research carried out by Campos and Fernandes (2015) have revealed significant differences following application of inclusive program in the experimental group. The aim of this has been was to assess the impact on raising awareness program on the seventh class students' attitudes towards inclusion of disabled students at classes of physical education.

With the aim of raising disability awareness Mckai, Block and Park (2015) have carried out the research to determine the impact (PSD) at physical education classes. The aim of this study is to determine whether Paralympics School Day (PSD), the published disability awareness program, will have a positive impact on the attitudes of students without disability towards inclusion in education of students .

The research carried out by Mckai, Haegele and Block (2019) has had the aim to describe experiences of the sixth classes students who have participated in the Paralympics Day Program (PSD), related to forming attitudes and perception of disabled persons.

The group of authors Perez et al. (2019) in their research has cited that students, who have had a contact with persons with disability, have developed a positive attitude towards disability.

DISCUSSION

Implementation of a specific program in physical education classes has proved as an efficient pedagogical method for raising awareness and developing attitudes of students towards persons with disability. Implementation of national and international Paralympics educational programs, such as (PSD) program, contribute to development of students' positive attitudes towards disabled persons (Panagiotou et al., 2008). Similarly, the impact of the (PSD) program has been carried out by (Liu et al., 2010) in this research. The program has been made up of the three sessions; the first one has been made up of classes on the subject of Paralympics sport. At the first session video footages of summer and winter Paralympics have been on. At the second session, students have been trained in different techniques, rules and equipment used in bowling. At the third session, students were explained the basic rules and characteristics of basketball from a wheelchair. The basic exercises in shooting have been carried out subsequently, handling a ball and dribbling from wheelchair, thus students could apply all these instructions from exercising in practice. Girls had a better attitude towards persons with disability than boys, prior to, during and after the intervention, which coincides with researches (Xafopoulos et al., 2009). Paralympics School Day can change an attitude of participants towards persons with disability, when certain activities have been organized, and characteristics of participants have to be taken into account.

The findings have shown that UNS Program has been efficient in reducing a problematic demeanor of young people with intellectual disability and increasing their social competence. Besides, it has been determined that the program is efficient in improving the attitude of young people without disability towards disabled participants (Özer et al., 2012; Baran et al., 2013). Applied program of Unified football, applied in the research, has proved as efficient in boys with intellectual disability and without disability. The football program has lasted for eight weeks, three times a week per an hour and a half after classes, while the control group has attended only regular classes of physical education. Beside attitudes, the results and a measure of effect have revealed interviewees of experimental group having achieved better results in physical fitness and football skills in relation to control group.

The influence at classes of physical education (PSD) carried out by (Mckay et al., 2015) on the subject, measured on a sample of 143 sixth classes' students, who were divided into two groups. Participation in (PSD) program has contributed to a positive impact on the attitudes of students towards inclusion of students with disability in the environment of physical education. Curriculum and program (PSD) has been created so to provide a platform for a change of an attitude through education and awareness, to ensure participants an opportunity to challenge and find a sense in their beliefs and experiences. Experience gained

through PSD has changed attitudes and perceptions of participants towards disabled persons (Mckay et al., 2019).

In addition to Parlympics Sport Day (PSD), on the grounds of the results one can conclude that Paralympics Week has significantly influenced the raising of the positive attitudes of students without disability at classes of physical education towards their peers with disability. The program called „Paralympics week “has lasted for 120 minutes (two classes of 60 minutes), in every class, and would start by a short theoretical awareness on Paralympics sport, using multimedia resources, using TV channels Paralympics sport, with the aim of raising awareness and increasing the knowledge of participants on Paralympics modalities and appropriate sports (basketball in a wheel chair, athletics bowling, goal ball, sitting volleyball). Consequently, using a methodology of simulation, participants have had the opportunity to exercised bowling, goal ball, sitting volleyball and basketball from a wheelchair. (Campos, & Fernandes, 2015).

Another program of disability awareness (DAP) for secondary school students, which has involved an active education on disability with involvement of guest lecturers (athletes from Paralympics and Special Olympiad), video-presentations, a direct contact with disabled persons, a documentary film on persons with disability, activities of simulation of disability and significant extracurricular activities, including considering sporting achievement, has positively influenced on raising disability awareness. The attitude towards disability has been measured by a scale „Chedoke-McMaster attitudes towards disabled children” (CATCH) and a scale „Just Like You)” by promoting disability awareness, prior to and after the training. Interactive discussion was a success (Moore, & Nettelbeck, 2013).

The influence of awareness program on attitudes of children without disability towards inclusions of peers with disability in the summer camp. Students have has an opportunity to raise awareness through disability awareness program, to meet with different disabilities, Paralympics and Special Olympics games. The program on raising disability awareness in the recreational environment has increased an overall and sport relationship towards peers with disability (Papaioannou et al., 2013). By applying various programs (Pérez et al., 2019), have cited that students who have had a contact with persons with disability have formed a positive attitude towards disability. Moreover, following the conducted awareness program on Paralympics sport, the students’ attitude towards disability has been more positive.

CONCLUSION

Analyzed researches have a focus on unexplored fields of knowledge, whose discoveries have impact to understand in advance children’s perceptions and

attitudes towards disability within educational environments. Children have to be ready to practically accept children with disability, who could join their school in the future. Therefore, appropriate intervening programs in practice should be encouraged intended to enrich children's personal experience with practical learning and understanding of disability.

Implementation of the program, "Paralympics weeks" and specially programmed camps has positively influenced on the children's attitudes towards persons with disability. Following listening, watching, group discussions on disability and a contact between persons with and without disability, children have changed their attitudes and perceptions they have had before. A review of the research has determined that the application of Paralympics sport through various programs is a good way to raise the awareness in children through a physical activity and game.

Considering that the field hasn't been sufficiently explored due to its sensitivity and specificity, the future researches on the subject should encompass a large number of examinees through some of the programs, as well as a larger number of motor and functional tests. Sports such as Paralympics are a novelty for school children age without disability, thus a greater interest can be expected because of specific unusual contents, equipment and props.

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УТИЦАЈ ПАРАОЛИМПИЈСКИХ И СПЕЦИЈАЛНИХ ПРОГРАМА КОД ДЕЦЕ БЕЗ ИНВАЛИДИТЕТА – СИСТЕМАТСКО ПРЕГЛЕДНО ИСТРАЖИВАЊЕ

САЖЕТАК

Увод: Деца са инвалидитетом имају низак ниво прихватања од стране вршњака. Применом параолимпијских програма код особа без инвалидитета могли би да се промене њихови ставови према особама са инвалидитетом. Метод: Претраживани су радови из следеће електронских база података: ПубМед/Медлине, Цихнал, Ембасе, Опен-Ј-Гате, СциенцеДирецт, Гоогле Сцхоллар и Кобсон. Тражени су радови објављени

између 2008. и 2021. године. Критеријуми за укључивање су подељени на четири дела: стратегија студије, дизајн студије, врста исхода мерења, критеријуми искључења. Процедуре су спроведене у складу са изјавом о Преферираним ставкама извештавања за систематске прегледе (ПРИСМА). Резултати: Од 110 радова који су ушли у разматрање, 11 радова је узето за дубљу анализу на основу којег је донет закључак. Закључак: Параолимпијски програми позитивно су утицали на ставове деце без инвалидитета.

Кључне речи: паралимпийски спорт, физичка активност, физичко васпитање

ВЛИЯНИЕ ПАРАЛИМПИЙСКИХ ПРОГРАММ НА ЛЮДЕЙ БЕЗ ИНВАЛИДНОСТИ – СИСТЕМАТИЧЕСКИЙ ОБЗОР

АННОТАЦИЯ

Дети с ограниченными возможностями не воспринимаются должным образом своими сверстниками. Применение паралимпийских программ для подготовки людей без инвалидности может изменить их отношение к людям с физическими отклонениями. Метод: Поиск научных работ проводился в следующих электронных базах данных: PubMed / Medline, Cihnal, Embase, Open-J-Gate, ScienceDirect, Google Scholar и Kobson. Работы были опубликованы в период с 2008 по 2021 год. Критерии исследования представлены четырьмя видами: стратегия исследования, дизайн исследования, тип результатов измерения, критерии исключения. Процедуры проводились в соответствии с положением Preferred Reporting Items for Systematic Reviews (PRISMA). Результаты: Из 110 работ, включенных в обзор, 11 работ были взяты для углубленного анализа, на основании которого было сделано заключение. Заключение: Программы Паралимпийских игр оказали положительное влияние на отношение детей, не страдающих физическими недугами.

Ключевые слова: Паралимпийский спорт, инвалидность, физическая активность, нарушение зрения, физическое воспитание, информированность

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