Do students with special educational needs need to modify the rules of games in inclusive physical and sports education? The opinions of able-bodied children

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Abstract:

The objective of the study was to find out the opinions of able-bodied children on the need for modifications of sports and motor games in inclusive physical and sports education. The participants were able-bodied children of two primary schools (n=230) and one high school (n=211). The question about modifying the rules of sports and motor games in inclusive physical and sports education was part of the standardized CAIPE-R questionnaire. Able-bodied primary (Chi=128.62, p=0.00) and high school (Chi=116.82, p=0.00) children clearly agree with the modification of sports and motor games when integrating a student with a visual impairment and do not agree when integrating a student who is deaf and hard of hearing into inclusive physical and sports education. Primary school children are strongly agreeable to the need for modifications to the rules of games in inclusive physical and sports education when including a pupil with autism spectrum disorders (Chi=17.69, p=0.00) and only indifferent when including a pupil with attention deficit hyperactivity disorder.

Keywords: students with sensory disabilities, students with disorders, opinions, inclusive physical and sports education, primary school, and high school students.

Movement has a key role in the participation in physical education (PE), so that students' bodies and motor abilities are much more relevant in PE than in other subjects. This specificity of PE leads to a greater perception of physical differences between students, and thus, certain psychological factors, such as the students' body images and physical self-concepts, become more relevant (Schmidt et al., 2013). Due to its specific contents, e.g., sports and motor games, PE has the potential to promote important social and individual skills such as fair play, teamwork, and commitment (Jacobs et al., 2013). This basic idea that PE should support both students' motor and psychosocial development shapes PE in all countries (MacPhail et al., 2019). Students with special educational needs (SENs) are of different relevance in inclusive PE compared to inclusive education in the classroom. For example, students with physical disabilities need more attention and adaptations to the PE-specific

environment than in classrooms. Students with learning disabilities still need support in inclusive PE, but less than in subjects with a focus on cognitive requirements (Braksiek, 2022). On the one hand, these differences lead to challenges regarding the inclusion of students with SENs, but on the other hand, social learning processes in PE provide specific potential to include these students (Tant & Watelain, 2016; UNESCO, 2015).

Research conducted in Slovakia declares that pupils with SENs are mostly perceived positively by their classmates in inclusive PE. For example, pupils with visual impairments are more positively perceived by girls than boys in inclusive PE (Nemček, 2022); pupils with physical disabilities are fully accepted at PE classes by able-bodied church school pupils (Skovajsová et al., 2022); and significantly more positive perceptions of the inclusion of pupils with intellectual disabilities in PE are held by high school girls than high school boys (Olexová & Luptáková, 2022).

Research objective

The objective of the study was to find out the opinions of able-bodied children on the need for modifications of sports and motor games in inclusive physical and sports education. We have focused on the inclusion of pupils/students with sensory disabilities, pupils with autism spectrum disorders, and pupils with attention deficit hyperactivity disorder.

Methods

The participants were able-bodied children of two primary schools in the Slovak cities Žilina (n=230; mean age 13.24±1.12 years) and Prievidza (n=147; mean age 13.47±1.14 years) and students of one high school in the city Bardejov (n=211; mean age 16.87±1.15 years). Pupils of the Žilina primary school and high school students in Bardejov expressed their opinion on the modification of the rules of sports and motor games when including pupils with sensory disabilities (a pupil with visual impairment and a deaf and hard of hearing pupil). Pupils in grades 6 - 9 of the primary school in Prievidza expressed their opinion on the modification of the rules of sports and motor games when including pupils with autistic spectrum disorders and attention deficit hyperactivity disorder. The question about modifying the rules of sports and motor games in inclusive physical and sports education was part of the standardized CAIPE-R questionnaire (Block, 1995), which was anonymous. The pupils' legal representatives, as well as the pupils themselves, were informed that the data collected would be used for research processing purposes as part of the KEGA grant project No. 051UK-4/2022. The children's legal representatives signed and handed in an informed consent to

participate in the research. The CAIPE-R questionnaire explores pupils' attitudes towards inclusion in PSE and is generalisable to more than one disability. It is a valid and reliable instrument for measuring able-bodied children's attitudes toward the inclusion of pupils and students with disabilities and disorders in PSE (Olekšák, Nemček & Ruman, 2022). For the purpose of this scientific paper, we have processed the question from the questionnaire: "*In your opinion, does a pupil/student with a) visual impairment (VI), b) hearing impairment (D/HH), c) autistic spectrum disorders (ADS), d) attention deficit hyperactivity disorder (ADHD), need a modification of the rules of sports or motor games in inclusive physical and sports education?"* For this question, only "yes" and "no" answers were offered, so that able-bodied children could only strongly agree or disagree with the question. The representation of the children's answers was evaluated by percentage (%) and the differences in the answers between agree and disagree were processed by Chi-square test. We determined the significance of the differences and the 5% ($p \leq 0.05$) level of statistical significance. We present the results in figures.

Results

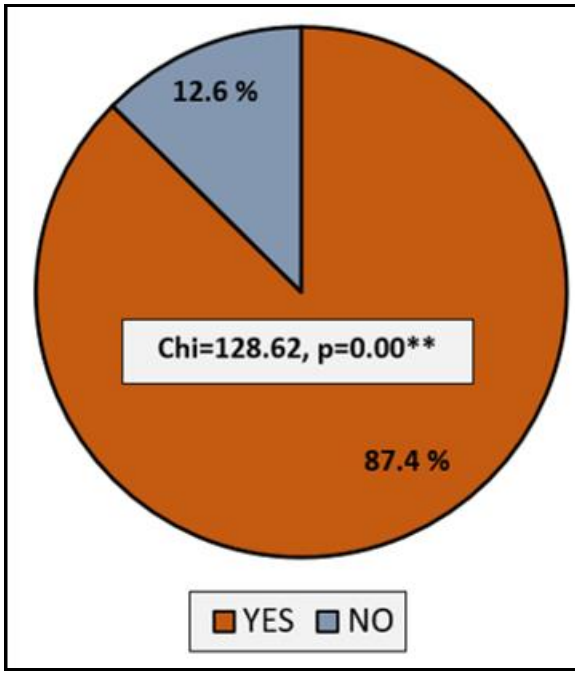

Figure 1 Primary school pupils' (n=230) opinions toward the inclusion of a pupil with a VI

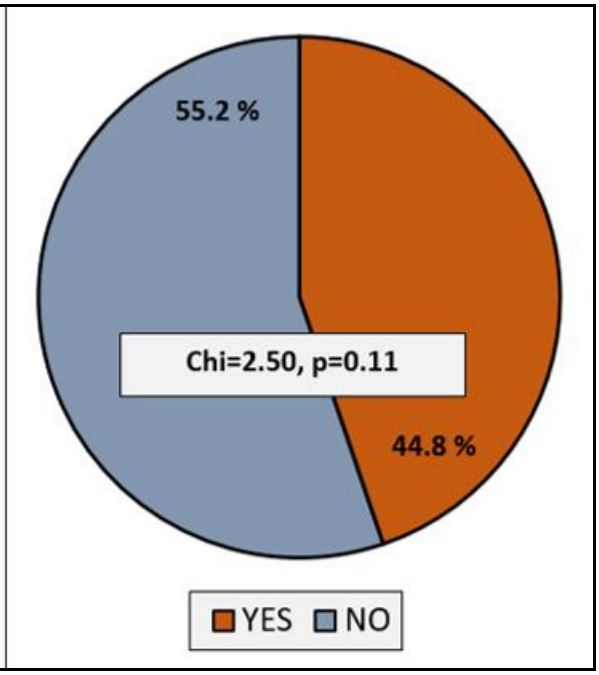

Figure 2 Primary school pupils' (n=230) opinions toward the inclusion of a D/HH pupil

Analyzing opinions on the need to modify the rules of sports games for students with visual impairments, we found a clearly agreeable opinion among able-bodied primary school pupils (n=230). As many as 87.4% of pupils agreed with the need to modify the rules of

sports games for blind and partially sighted students, and only 12.6% of pupils expressed disagreement. This difference in the answers of able-bodied pupils was significant (Chi=128.62, p=0.00), in favour of the agreeable opinion (Figure 1). The result was very similar when we were asking able-bodied high school students (n=211). These students also unequivocally agreed (87.2%) that blind and partially sighted students should have modified rules of sports and motor games in inclusive physical and sports education. There were also high school students who did not agree with the modification of the rules of games in inclusive physical and sports education (12.8%). This difference in the answers of able-bodied high school students was significant (Chi=116.82, p=0.00) in favour of the agreeable opinion (Figure 3).

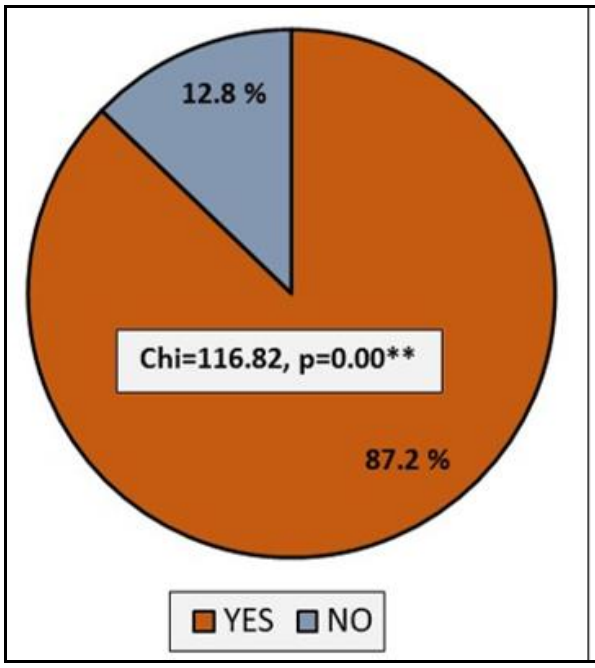

Figure 3 High school students' (n=211) opinions toward the inclusion of a student with a VI

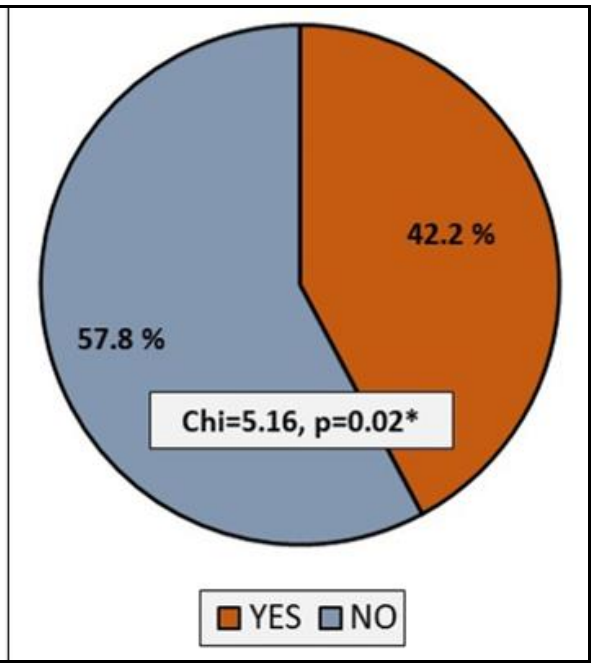

Figure 4 High school students' (n=211) opinions toward the inclusion of a D/HH student

Analyzing the opinions on the need to modify the rules of sports and motor games for a pupil with hearing impairment, we found a rather disagreeing opinion among able-bodied primary school pupils (n=230), where up to an overwhelming majority of them (55.2%) disagreed and 44.8% agreed with the modification of the rules in this regard. This difference in the able-bodied pupils' responses was not significant, so we can conclude that opinions on modifying the rules of sport and motor games in inclusive physical and sports education, although polarised, are approximately equal (Figure 2). A similar result emerged when able-bodied high school students (n=211) were surveyed. These students also overwhelmingly

disagreed (87.2%) that a deaf and hard-of-hearing student should have modified rules of sports and motor games in inclusive physical and sports education. However, there were also some high school students who agreed (42.2%) with the modification of the rules of games in inclusive physical and sports education. This difference in the responses of able-bodied high school students was significant at the 5% level of statistical significance (Chi=5.16, p=0.02), in favour of the disagreeing opinion (Figure 4).

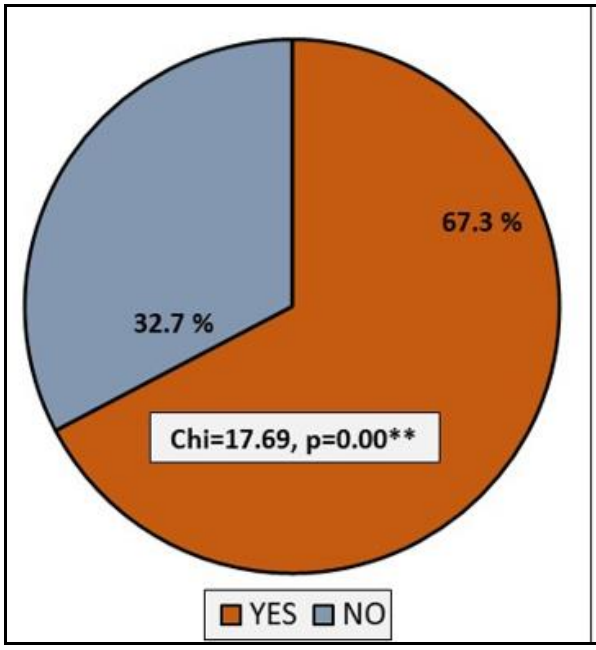

Figure 5 Primary school pupils' (n=147) opinions toward the inclusion of a pupil with ASD

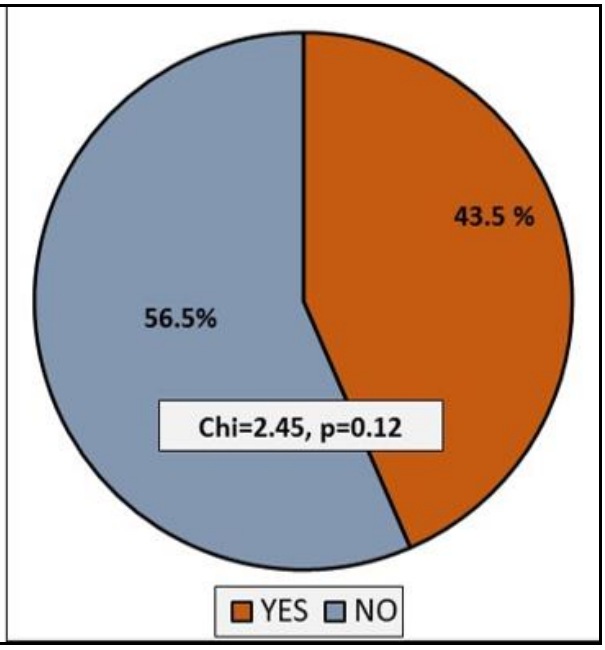

Figure 6 Primary school pupils' (n=147) opinions toward the inclusion of a pupil with ADHD

Furthermore, our research revealed children's positive responses when we asked about the need for modifications to the rules of sports and motor games in inclusive physical and sports education by including a pupil with ASD. As many as 67.3% of able-bodied primary school pupils (n=147) agreed with rule modifications for a pupil with autism and 32.7% of able-bodied pupils disagreed with this question. This difference in responses from primary school pupils was significant (Chi=17.69, p=0.00), in favour of agreeing with rule modification in inclusive physical and sports education for a pupil with ASD (Figure 5). When the next question in the questionnaire asked pupils about their opinion on modifying rules of sport and motor games for a pupil with ADHD in an inclusive physical and sports education lesson, we found that pupils (n=147) expressed approximately equal numbers of agreeing (43.5%) and disagreeing (56.5%) opinions on this question. The difference between the responses of able-bodied primary school pupils on the need for modification of play rules

in inclusive physical and sports education for a pupil with ADHD was not significant (Figure 6).

Discussion

The objective of the present study was to find out the opinions of able-bodied children on the need for modifications of sports and motor games in inclusive physical and sports education for the inclusion of pupils and students with sensory impairments and disorders.

Our research revealed that able-bodied elementary and high school children clearly agree with the modification of sports and motor games when integrating a student with a visual impairment into inclusive physical and sports education. A range of personal, social, and environmental barriers prevent participation for young people with visual impairment. Results of the Cain et al. (2023) study demonstrated that despite holding positive views about PA and being motivated to be physically active, visually impaired pupils experienced many of the barriers and lack of opportunities to be enhanced in regular physical activity. Further, in the present research we found that when a student who is deaf and hard of hearing is included in inclusive physical and sports education, able-bodied children of both primary and high school do not agree with the modification of sports and motor games. Even among the high school students, this difference in opinion was significant in favour of disagreement with rule modifications. Although the children of our research are not in favour of modifying the rules of the games for deaf and hard-of-hearing pupils, the practice is those physical and sports education teachers use whiteboards in the inclusive process to better understand the modification of the rules just for deaf and hard of hearing pupils (Maietta & Tafuri, 2022).

Further, our research revealed that primary school children were strongly agreeable to the need for modifications to the rules of games in inclusive physical and sports education when including a pupil with ASD and only indifferent when including a pupil with ADHD. The study of Sansi, Nalbant & Ozer (2021) concluded that the inclusive physical education program was an effective method for improving the social skills and motor skills of students with ASD. The results of their study further demonstrated that this was an effective method for developing motor skills in able-bodied peers and creating positive changes in their attitudes. Although our research only declares the indifferent views of able-bodied learners on modifying play rules in inclusive physical and sports education, based on the results of the research, the authors Fotoglou et al. (2022) suggest that for children with ADHD, aerobic exercises and psychomotor activities are the best inclusive activities, at a frequency of twice a week.

Conclusion

We conclude that able-bodied primary and high school children clearly agree with the modification of sports and motor games when integrating a student with a visual impairment into inclusive physical and sports education. When a student who is deaf and hard of hearing is included in inclusive physical and sports education, able-bodied children of both primary and high school do not agree with the modification of sports and motor games. Primary school children are strongly agreeable to the need for modifications to the rules of games in inclusive physical and sports education when including a pupil with autism spectrum disorders and only indifferent when including a pupil with attention deficit hyperactivity disorder.

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Abstrakt

Potrebujú žiaci so špeciálnymi výchovno-vzdelávacími potrebami modifikácie pravidiel hier v inkluzívnej telesnej a športovej výchove? Názory intaktných žiakov

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Cieľom výskumu bolo zistiť názory intaktných žiakov na potrebu modifikácie športových a pohybových hier v inkluzívnej telesnej a športovej výchove. Respondentmi boli intaktné deti dvoch základných škôl (n=230) a jedného gymnázia (n=211). Otázka o modifikácii pravidiel športových a pohybových hier v inkluzívnej telesnej a športovej výchove bola súčasťou štandardizovaného dotazníka CAIPE-R. Intaktní žiaci základných škôl (Chi=128,62, p=0,00) a gymnázia (Chi=116,82, p=0,00) jednoznačne súhlasia s modifikáciou športových a pohybových hier pri inklúzii žiaka so zrakovým postihnutím a nesúhlasia pri inklúzii žiaka so sluchovým postihnutím. Žiaci základných škôl jednoznačne súhlasia s potrebou modifikácie pravidiel hier v inkluzívnej telesnej a športovej výchove pri začlenení žiaka s poruchou autistického spektra (Chi=17,69, p=0,00) a len indiferentne sa vyjadrili pri začlenení žiaka s poruchou pozornosti a hyperaktivitou.

Kľúčové slová: žiaci so zmyslovým postihnutím, žiaci s poruchami, názory, inkluzívna telesná a športová výchova, žiaci základných škôl a gymnázia.

doc. Mgr. DAGMAR NEMČEK, PhD. (*1977) – zaoberá sa inkluzívnou telesnou a športovou výchovou, telesnou a športovou výchovou na špeciálnych školách a športom zdravotne postihnutých.

Bc. TOMÁŠ JAMRIŠKO (*2000) – je študent magisterského štúdia a vo svojich záverečných prácach rieši problematiku inkluzívnej telesnej a športovej výchovy.

BARBORA KYSELOVÁ (*2001) – je študentkou bakalárskeho štúdia a vo svojej záverečnej práci rieši problematiku inkluzívnej telesnej a športovej výchovy.