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FACTOR VALIDITY AND SENSITIVITY OF THE SCALE FOR ASSESSMENT OF ATTITUDES TOWARDS SPORTS INCLUSION OF CHILDREN AND YOUTH WITH INTELLECTUAL DISABILITIES

FAKTORSKA VALJANOST I OSJETLJIVOST SKALE ZA PROCJENU STAVOVA PREMA SPORTSKOJ INKLUZIJI DJECE I MLADIH SA INTELEKTUALNIM TEŠKOĆAMA

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ABSTRACT

This work aims to examine the factor validity and sensitivity of the Scale for assessment of attitudes towards sport's inclusion of children and youth with intellectual disabilities. The study included 155 respondents from the general population over 18 years of age from Bosnia and Herzegovina. The working version of the Scale contained 29 items, and after content validity, the final version had 34 items. The items were subjected to the calculation of the internal consistency coefficient of Cronbach's alpha, as well as reliability assessment by calculating the inter-item statistics. Four rounds of factor analysis were conducted, and the three-factor model was retained, explaining 50.43% of the total variance. The set of 34 items reduced to 21 based on the obtained results. The internal reliability coefficient of $\alpha = 0.90$ indicates that the Scale has excellent reliability and internal agreement. The results of the Kolmogorov-Smirnov test (KS = 0,058, df = 155, p = 0,200) show that the obtained distribution of the Scale does not deviate statistically significantly from the normal distribution. Results indicate that the Scale can be used in future research on the general population's attitudes towards the sport's inclusion of children and youth with intellectual disabilities.

Key words: attitudes, sports inclusion, reliability, sensitivity, exploratory factor analysis.

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SAŽETAK

Cilj rad je ispitati faktorsku valjanost i osjetljivost Skale za procjenu stavova opšte populacije prema sportskoj inkluziji djece i mladih sa intelektualnim teškoćama. Uzorak istraživanja činilo je 155 ispitanika opšte populacije iznad 18 godina starosti sa prostora Bosne i Hercegovine. Radna verzija Skale sadržavala je 29 ajtema, a nakon provjerom sadržajne valjanosti konačna verzija imala je 34 ajtema. Ajtemi su podvrgnuti računanju koeficijenta unutrašnje konzistencije Cronbach alfe kao i procjeni pouzdanosti računanjem međučestične statistike. Provedena su četiri kruga faktorske analize, te je zadržan trofaktorski model koji objašnjava 50,43% ukupne varijance. Na osnovu dobijenih rezultata set od 34 ajtema, reducirao se na 21. Koeficijent unutrašnje pouzdanosti, $\alpha = 0,90$, ukazuje da Skala ima vrlo dobru pouzdanost i unutrašnju saglasnost. Rezultati Kolmogorov-Smirnov testa ($KS = 0,058$, $df = 155$, $p = 0,200$) pokazuju da dobivena raspodjela Skale ne odstupa statistički značajno od normalne distribucije. Na temelju dobijenih rezultata može se zaključiti da se Skala može koristiti u budućim istraživanjima stavova opšte populacije prema sportskoj inkluziji djece i mladih s intelektualnim teškoćama.

Ključne riječi: stavovi, sportska inkluzija, pouzdanost, osjetljivost, eksplorativna faktorska analiza

INTRODUCTION

In the last few decades, more precisely since the World Conference on Special Needs in Education held in Salamanca in 1994, there have been debates around the world in scientific and professional circles about how to implement inclusion at all levels of education (Kiuppis & Hausstätter, 2014, as cited in Kiuppis, 2018). Inclusion in education has become a key topic when it comes to people with disabilities, and for many years, other inclusion aspects have been neglected. The Convention on the Rights of Persons with Disabilities (UN, 2008), in addition to the emphasis on educational inclusion, also emphasizes other inclusion aspects such as inclusion in the community, working environment, cultural life, free time, and sports. However, despite this, certain inclusion aspects, such as sports inclusion, are still not in the sphere of interest of the scientific and professional public. Sports inclusion implies adaptations at different levels to enable the equal participation of all participants in a sport (Marin-Urquiza, Kerremans, & Van Biesen, 2020) and so that people with disabilities can compete in a regular environment without stigma or fear for their status (Nixon, 2007).

A particularly vulnerable group of people with disabilities when it comes to sports inclusion are children and young people with intellectual disabilities. Studies show that about 50% of people with intellectual disabilities do not play sports (Robertson & Emerson, 2010) and that compared to people with or without disabilities, they are much less likely to play sports (Darcy & Dowsw, 2013). A higher participation rate in sports is found among people with intellectual disabilities who are in special schools (Iyer et al., 2019), but this participation significantly decreases after the end of special education (Tsai & Fung, 2009). Barriers that prevent the participation of people with intellectual disabilities in sports are numerous, and Yu et al. (2022) determine the following: barriers related to disability, low self-confidence, lack of parental support, inadequate or unavailable institutions, and lack of appropriate

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programs. However, Ilhan and Esentürk (2015) believe that the participation of people with intellectual disabilities in sports mostly depends on attitude and level of awareness of society about this topic.

The attitudes of other people represent one of the crucial barriers that prevent the participation of people with disabilities, including people with intellectual disabilities, in sports activities. A study analysis shows three trends. The first one consists of studies that examined the influence of watching athletes with intellectual disabilities at elite-level competitions on social attitudes towards these people, and results show that watching athletes with intellectual disabilities compete at the elite level can have a positive effect on social attitudes (Carew, Noor, & Burns, 2019; Ferrara, Burns, & Mills, 2015). The second trend consists of studies that examined attitudes after participating in joint sports activities with people with intellectual disabilities. Evaluation of a project carried out by the Special Olympics in Austria, Poland, Romania, Serbia, and Slovakia called Unified Football showed that involved children had more positive attitudes towards the competencies of peers with intellectual disabilities and a greater willingness to interact with them compared to children who were not involved in the project (Norins Bardon et al., 2006). Šeatović, Nikolić, and Vantić-Tanjić (2023) sought an answer to the question "Can sports inclusion improve the attitudes of the general population towards people with intellectual disabilities?" in a review paper. They found only four studies that dealt with this issue (Abellan, Sáez-Gallego, & Reina, 2018; Karkaletsi et al., 2021; Mills, Morin, & Weiss, 2022; Sullivan & Masters Glidden, 2014), which showed that the participants' attitudes towards people with intellectual disabilities significantly improved after inclusive sports activities. Also, in the communities that host the Special Olympics, there was an improvement in attitudes towards people with intellectual disabilities (Norins, Parker, & Siperstein, 2007) and their inclusion in the community (Li & Wu, 2012). The third trend consists of studies evaluating the attitudes toward sports participation of students with intellectual disabilities.

It was found that special education teachers and parents of students with intellectual disabilities have positive attitudes toward students' participation in sports activities, but parents express more positive ones (Aslan, 2018).

As can be seen, the studies were mainly concerned with examining the impact of sports activities on changing the attitudes of direct or indirect participants towards people with intellectual disabilities. A single study was not found that examined the attitudes of the general population toward the sport's inclusion of persons with intellectual disabilities. Therefore, the general public attitudes about the sport's inclusion of people with intellectual disabilities are unknown, and it is clear that the sports inclusion of these people largely depends on the attitudes and willingness of the general population to participate in sports activities together with people with intellectual disabilities. Given that no study has been found on the attitudes of the general population towards the sport's inclusion of children and youth with intellectual disabilities, there are no adequate measuring instruments for examining this issue. This work aims to analyze the factor validity and sensitivity of the Scale for assessment of attitudes towards the sport's inclusion of children and youth with intellectual disabilities.

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MATERIAL AND METHODS

Sample of participant

The sample was formed from the general population of Bosnia and Herzegovina (N = 155). Respondents were over 18 years of age and both sexes. The sample was formed by non-probability sampling of respondents, and convenience, voluntary, and chain sampling was used. Students and special educators and rehabilitators were included in the sample by convenience sampling. Via social networks, an open invitation to participate in the research was sent (voluntary sampling), and participants were invited to share the invitation with their friends (chain sampling). The sample had more women (72.3%) than men (27.7%). The highest percentage of respondents was between the ages 31 to 40 (34.8%), then from 18 to 22 (25.8%), then from 23 to 30 (23.9%), while the least respondents were over 51 (15.5%). Concerning the level of education, the majority of respondents had secondary education (55.5%), followed by respondents with higher education (43.9%), while only one respondent (0.6%) had primary education. Previous contact with people with intellectual disabilities accounted for 76.8% of respondents, while 23.2% did not.

Method of conducting research

The research took place in November and December 2023. A convenient sample (special educators and rehabilitators, students) filled out a Scale using the paper-pencil method, while the electronic version was distributed via social networks and was filled out and submitted online. Along with the Scale, the respondents were informed about all the details of the research (goal, anonymity, possibility of withdrawing from the research), and by completing the Scale, it was considered that they agreed to participate based on informed consent. In the context of this research, sports inclusion of children and youth with intellectual disabilities implies physical placement of children and youth with intellectual disabilities in regular sports clubs together with peers of typical development, their social inclusion with peers, and their participation in usual sports activities. The definition preceded the Scale, and before filling, the respondent had to read the given definition and fill out the Scale in the context of the same.

Measuring instruments

A Scale for assessment of attitudes towards the sport's inclusion of children and youth with intellectual disabilities was constructed based on the analysis of available similar studies. As ideas for individual variables, the Attitude scale of individuals having mental disabilities towards sports activities (Zihinsel engelli bireylerin sportif etkinliklerine yönelik tutum ölçeği (zebseytö), İlhan, Esentürk, & Yarımkaya, 2016), as well as research on attitudes towards inclusion in sports activities of people with disabilities, conducted by Eminović, Nikić, Stojković, and Pacić (2009). The Scale is the Likert type with a range of answers from 1 (completely disagree) to 5 (completely agree), and a higher number of points represents a more positive attitude. Statements are given in positive and negative forms to avoid automatic responses. Negatively worded statements are 4, 5, 10, 11, 12, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 29, and 30. Negatively statements and scored inversely.

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Data processing methods

The construct validity of the Scale was tested by Inter-Item correlation and exploratory factor analysis. Reliability was tested by calculating the Cronbach-alpha coefficient for the whole Scale and the obtained factors. Sensitivity was tested with the Kolmogorov-Smirnov test. Statistical analyses were performed using the IBM SPSS Statistics 25 program.

RESULTS AND DISCUSSION

Scale validity

The validity was examined through content and construct validity. The content validity was determined by three experts from the field of intellectual disabilities, two from special education and rehabilitation, one psychologist, and a professor of the language, who looked at the working version and gave their opinions. Experts from the field of intellectual disabilities and special education and rehabilitation agreed with the proposed version, and they concluded that the Scale was valid, that the items were clear, and measured what they were intended for. The psychologist expressed the opinion that the Scale dominated items that measure the cognitive component of attitudes and suggested adding a few items that measure the emotional component of the attitude. The working version of the Scale contained 29 items, and five more variables were added, so the final version had 34 variables.

Construct validity was determined using Inter-Item correlation. The internal consistency coefficient of the total Scale was $\alpha = 0,91$, which indicates that the Scale had excellent reliability and internal consistency. Table 1a and 1b presents the results of the Inter-Item correlation.

Table 1a. Results of Inter-item correlation of individual items with the total score

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1.	115,49	207,52	0,67	0,90
2.	115,08	210,60	0,58	0,90
3.	115,58	209,22	0,59	0,90
4.	115,30	211,99	0,54	0,90
5.	116,27	211,32	0,51	0,90
6.	114,66	214,10	0,51	0,90
7.	114,60	215,10	0,54	0,90
8.	114,45	219,78	0,35	0,91
9.	114,73	213,12	0,60	0,90
10.	115,09	211,65	0,59	0,90
11.	116,03	220,24	0,25	0,91
12.	115,48	212,03	0,54	0,90

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Table 1b. Results of Inter-item correlation of individual items with the total score

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
13.	114,94	216,55	0,43	0,91
14.	114,75	217,52	0,43	0,91
15.	114,45	217,59	0,52	0,91
16.	115,06	214,57	0,53	0,90
17.	115,25	218,59	0,30	0,91
18.	114,95	218,11	0,39	0,91
19.	114,91	216,88	0,40	0,91
20.	114,88	213,37	0,55	0,90
21.	115,49	211,01	0,57	0,90
22.	116,08	210,97	0,53	0,90
23.	116,36	223,77	0,13	0,91
24.	116,51	224,41	0,11	0,91
25.	116,14	216,36	0,45	0,91
26.	115,91	215,99	0,46	0,91
27.	115,32	213,49	0,49	0,91
28.	114,97	214,58	0,51	0,90
29.	115,66	218,97	0,30	0,91
30.	115,90	223,68	0,15	0,91
31.	114,80	213,40	0,54	0,90
32.	115,17	213,95	0,50	0,91
33.	114,57	216,31	0,35	0,91
34.	114,48	215,07	0,48	0,91

The results of the Inter-Item correlation (Table 1a and 1b) show that six items have a correlation of less than 0,3 (Pallant, 2016) with the total score (item 11 – 0,23, item 17 – 0,30, item 23 – 0,13, item 24 – 0,11, 29 – 0,30 and item 30 – 0,15) and they removed from the Scale because the obtained values show that the items measure something other than attitudes. The same is confirmed by the Cronbah alpha values for individual items because all six mentioned items have the same or higher Cronbah alpha values.

Factor analysis was performed on a Scale that had 28 items using the method of principal components and varimax rotation. The sample consisted of 155 respondents, and the criterion of the relationship between the number of respondents and the number of items was met (the number of respondents must be at least five times greater than the number of items (Fulgosi, 1988, as cited in Mehmedinović, 2022).

Table 2. KMO and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,84
Bartlett's Test of Sphericity	Approx. Chi-Square	1983,24
	df	378
	p	0,000

Determinant = 1,03E-006

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The justification for applying factor analysis was confirmed by the results of KMO and Bartel's sphericity test (Table 2). The obtained KMO value of 0,84 is higher than the recommended value of 0,6 (Tabachnick & Fidell, 2007, as cited in Mehmedinović, 2022). According to Field (2009), KMO values between 0,50 and 0,70 are mediocre, between 0,70 and 0,80 good, between 0,80 and 0,90 great, and above 0,90 excellent, and the KMO values obtained in this case are great. Bartel's test of sphericity proved to be significant ($\chi 2$ = 1983,24, df = 378, $p < 0,001$), which shows that the particles are not too low in correlation with each other, which is one of the conditions for the implementation of factor analysis. However, the correlation matrix showed that five items (8, 10, 15, 18, and 19) correlate less than 0,30, and the mentioned items were excluded from the Scale, and a second round of factor analysis was conducted.

The factor structure of the Scale was analyzed using the method of principal components with the application of varimax rotation and the Gutman-Kaizer criterion (factors or components with an eigenvalue above one retained). The item correlation matrix showed that there is not a single item that has a correlation of 1 with another, respectively no a single item is a linear transformation of another, and items meet the set criteria of the method. According to the Gutman-Kajzer criterion, six eigenvalues are significant (7,81, 2,00, 1,34, 1,24, 1,18, and 1,06) and explain 63,54% of the total variance. The total shared variance of 63,54% is satisfactory for social research, and the unexplained variance of about 36% was structured by uniqueness and survey errors. It should be in mind that attitudes towards inclusion are theoretically and metrically a rather broad and inhomogeneous construct (Sidik, 2013), and in the studies of attitudes towards inclusion, a slightly higher percentage of unexplained variance can be expected. According to Katel's landslide test, it is recommended to keep all factors above the curve of the diagram (Mehmedinović, 2022), which in this case is three factors. The third round of factor analysis was carried and the factors were limited to 3. The obtained three eigenvalues explain 48,43% of the total variance. The correlation coefficients of items with factors were analyzed in the next step. Opić (2012) states that social research commonly uses $r \geq 0,40$ as a criterion for the correlation coefficient, while Hair, Black, Babin, and Anderson (2010) believe that the significance of the correlation coefficient depends on the sample size and a sample of 150 it is $r \geq 0,45$. The correlation coefficient analysis of items with factors showed that item 27 on factor 1 and item 20 on factor 3 have $r \geq 0,45$, and they were excluded from the Scale, and the fourth round of factor analysis was conducted (Table 3).

Table 3. Eigenvalues, percentage of common variance and cumulative variance

Factors	Eigenvalues	Percentage of common variance	Cumulative variance
1	7,27	33,64	34,64
2	1,98	9,45	44,09
3	1,33	6,34	50,43

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The results in Table 3 show that three eigenvalues (7,27, 1,98, and 1,33) together explain 50,43% of the total variance, which is an increase compared to the the third round of factor analysis when the total explained variance was 48,43%.

Table 4. Factor loads

Items	Component		
	1	2	3
34.	**0,80**	0,05	0,14
33.	**0,78**	-0,02	0,07
28.	**0,60**	0,25	0,20
32.	**0,59**	0,14	0,25
31.	**0,53**	0,04	0,40
12.	**0,51**	0,45	0,06
16.	**0,47**	0,46	0,05
14.	**0,46**	0,12	0,39
26.	-0,01	**0,79**	0,04
25.	0,03	**0,75**	-0,03
3.	0,23	**0,57**	0,44
1.	0,40	**0,56**	0,41
21.	0,14	**0,50**	0,38
4.	0,28	**0,48**	0,189
2.	0,41	**0,46**	0,35
7.	0,19	0,06	**0,74**
6.	0,22	0,11	**0,72**
13.	0,34	0,02	**0,55**
22.	-0,03	0,44	**0,52**
9.	0,28	0,38	**0,50**
5.	-0,01	0,49	**0,50**

According to the Table 4, the following items stand out on factor 1: 34 "At a sports competition, I would support the club where people with intellectual disabilities play" (r = 0,80), 33 "I would be happy if in a sports competition won a team in which a person with intellectual disabilities also plays" (r = 0,78), 28 "The presence of children and youth with intellectual disabilities in sports clubs encourages the acceptance of individual differences among their peers with typical development" (r = 0,60), 32 "Non-involvement of children and youth with intellectual disabilities in sports clubs in the community makes me angry" (r = 0,59), 31 "I would train in a sports club where people with intellectual disabilities also train" (r = 0,53), 12 "Joint sports activities can negatively influence the self-esteem of children and youth with intellectual disabilities" (r = 0,51), 16 "Joint sports activities could negatively affect the quality of life of children and youth with intellectual disabilities" (r = 0,47), and 14 "Sports activities with peers will positively affect the physical and psychological health of children and youth with intellectual disabilities" (r = 0,46). A factor called the **Positive emotions about sports inclusion.**

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On factor 2 (Table 4), the following items are distinguished: 26 "Children and youth with intellectual disabilities would not be accepted by peers with typical development" (r = 0,79), 25 "Children and youth with intellectual disabilities would not be chosen as teammates by peers with typical development" (r = 0,75), 3 "Children and youth with intellectual disabilities can participate in sports competitions together with peers of typical development" (r = 0,57), 1 "Children and youth with intellectual disabilities can train together with their peers of typical development" (r = 0,56), 21 "Children and youth with intellectual disabilities are not physically ready for sports activities with their peers" (r = 0,50), 4 "The participation of children and youth with intellectual disabilities in sports competitions would negatively affect the quality of the competition" (r = 0,48), and 2 "Children and youth with intellectual disabilities can be members of sports clubs that already exist in the community" (r = 0,46). Considering the items, the factor is called the **Sports inclusion acceptance**.

On factor three the following items have the highest factor loading: 7 "I would have nothing against my child training with a peer who has intellectual disabilities" (r = 0,74), 6 "I would participate in a sports event in which people with intellectual disabilities also participate" (r = 0,72), 13 "Participation in sports activities with peers gives children and youth with intellectual disabilities a sense of achievement" (r = 0,55), 22 "It is more appropriate for children and youth with intellectual disabilities to compete with peers who also have intellectual disabilities" (r = 0,52), 9 "Training together with peers will have a positive effect on the community's acceptance of children and youth with intellectual disabilities" (r = 0,50), and 5 "Children and youth with intellectual disabilities should train in sports clubs that are intended exclusively for people with intellectual disabilities" (r = 0,50). The factor called **The impact of sports inclusion on social acceptance.**

Table 5. Cronbach alpha coefficient by factors

	Factor	Cronbach alpha
1	Positive emotions about sports inclusion	0,81
2	Sports inclusion acceptance	0,83
3	The impact of sports inclusion on social acceptance	0,72

The Cronbah alpha coefficient values for the factors (Table 5) show that all three factors have a value above 0,70, which is considered acceptable (George & Mallery, 2003). Factor 1 and factor 2 have Cronbach alpha coefficients above 0,80 and are interpreted as good, and factor 3 has Cronbach alpha coefficient above 0,70, which is acceptable.

Scale reliability

After removing the items that did not satisfy the Inter-Item correlation because they correlated with a total score of less than 0,30 (items 11, 17, 23, 24, 29 and 30) and items that had correlation less than 0,30 in factor analysis (items 8, 10, 15, 18, and 19) and factor loading less then 0,45 (items 20 and 27), the final version of the Scale consists of 21 items.

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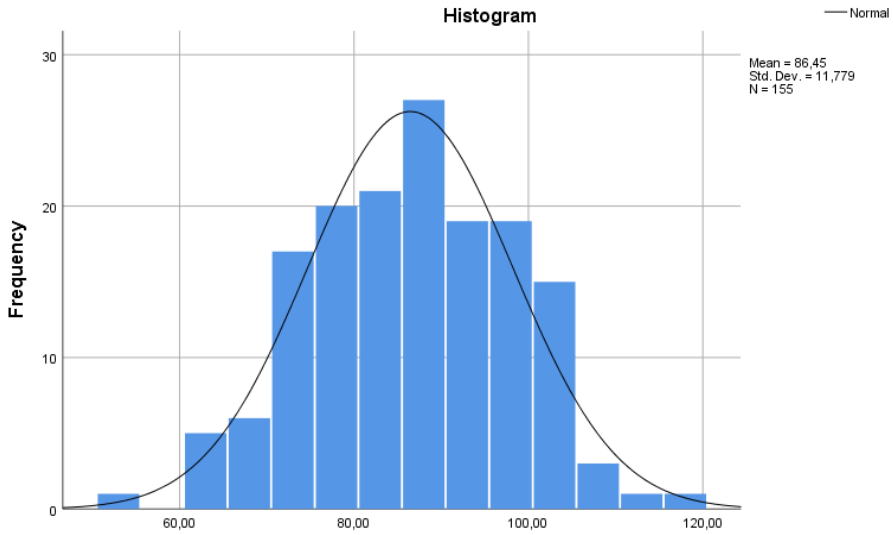
The internal consistency of the Scale with 21 items is α = 0,90 and is not significantly reduced compared to the internal consistency of the Scale in the initial phase when it had 34 variables (α = 0,91). The obtained internal reliability coefficient of 0,90 indicates that this version of the Scale has excellent reliability and internal agreement.

Scale sensitivity

The Kolmogorov-Smirnov test was used to test sensitivity (Table 6).

Table 6. Results of the Kolmogorov-Smirnov test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	p	Statistic	df	p
Q_Total_21	0,058	155	0,200	0,990	155	0,351



Histogram 1. Graphic representation of the distribution of results on the summary variable of the Scale

The results of the Kolmogorov-Smirnov test show that it is not statistically significant, and the obtained distribution of the Scale does not deviate statistically significantly from the normal distribution (KS = 0,058, df = 155, p = 0,200). Shapiro-Wilks test, also not statistically significant (SW = 0,990, df = 155, p = 0,351), confirmed the results of the KS test. The normality of the distribution is also visible in Histogram 1. Based on the results of the KS test and Histogram 1, it can be concluded that the Scale is sensitive for the subjects included in this research.

CONCLUSION

The initial version of the Scale with 34 items was reduced to 21 items through a constructive validity check. The items are arranged in three factors: Positive emotions about sports inclusion, Sports inclusion acceptance, and The impact of sports inclusion on social acceptance. The Scale, as a whole, has excellent reliability and internal agreement, while the

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factors have good to acceptable reliability. The results show that the Scale is sensitive for the general population that made up the research sample. Based on the results, it can be concluded that the Scale can be used in future research on general population attitudes toward the sport's inclusion of children and youth with intellectual disabilities.

REFERENCES

1. Aslan, E. (2018). Examination of Parental and Special Education Teachers' Attitudes towards Sports Activities of Students with Intellectual Disability. *Universal Journal of Educational Research, 6*(11), 2691-2695. https://doi.org/10.13189/ujer.2018.061136
2. Carew, M. T., Noor, M., & Burns, J. (2019). The Impact of Exposure to Media Coverage of the 2012 Paralympic Games on Mixed Physical Ability Interactions. *Journal of Community and Applied Social Psychology, 29*(2), 104-120. https://doi.org/10.1002/casp.2387
3. Darcy, S., & Dowsw, L. (2013). In search of a level playing field – the constraints and benefits of sport participation for people with intellectual disability. *Disability & Society, 28*(3), 393-407. https://doi.org/10.1080/09687599.2012.714258
4. Eminović, F., Nikić, R., Stojković, I., & Pacić, S. (2009). Attitudes toward inclusion of persons with disabilities in sport activities. *Sport Science, 2*(1), 72-77.
5. Ferrara, K., Burns, J., & Mills, H. (2015). Public attitudes toward people with intellectual disabilities after viewing Olympic or Paralympic performance. *Adapted Physical Activity Quarterly, 32*(1), 19-33. https://doi.org/10.1123/apaq.2014-0136
6. Field, A. (2009). *Discovering statistics using SPSS: Introducing statistical method* (3rd ed.). Thousand Oaks, CA: Sage.
7. George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Boston: Allyn & Bacon.
8. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th Edition). Pearson.
9. İlhan, E. L., & Esenturk, O. K. (2015). An Effort to Develop an Awareness Scale Regarding Effects of Sport on Persons with İntellectual Disabilities. *CBU Journal of Physical Education and Sport Sciences, 9*(1), 19-36.
10. İlhan, E. L., Esentürk, K. O., & Yarımkaya, E. (2016). Zihinsel engelli bireylerin sportif etkinliklerine yönelik tutum ölçeği (zebseytö): Geçerlik ve güvenirlik çalışması. *Journal of Human Sciences, 13*(1), 1141-1160. https://doi.org/10.14687/ijhs.v13i1.3656
11. Iyer, P., Shetty, T., Ganesan, S., Nair, S., Rao, N., & Mullerpatan, R. (2019). Exploration of sports participation in children with mild intellectual disability. *Critical Reviews™ in Physical and Rehabilitation Medicine, 31*(19), 85-92. https://doi.org/10.1615/CRITREVPHYSREHABILMED.2019029960
12. Kiuppis, F. (2018). Inclusion in sport: disability and participation. *Sport in Society, 21*(1), 4-21. https://doi.org/10.1080/17430437.2016.1225882
13. Li, C., & Wu, L. (2012). A survey study on attitudes of Special Olympic games volunteers toward the inclusion of individuals with intellectual disabilities in China. *European Journal of Adapted Pshysical Activity, 5*(1), 28-38. https://doi.org/10.5507/euj.2012.003
14. Marin-Urquiza, A., Kerremans, J., & Van Biesen, D. (2020). *How is sport for people with intellectual disabilities organised across Europe?* Leuven, Belgium. Retrieved from

Research in Education and Rehabilitation 2024; 7(1): 1-13. **DOI**: 10.51558/2744-1555.2024.7.1.1

https://thevirtusacademy.com/wp-content/uploads/2021/05/1H.-IDEALsport-organisation-across-Europe.pdf

15. Mehmedinović, S. (2022). *Metodologija naučno-istraživačkog rada sa statistikom*. OFF-SET, d. o. o., Tuzla.
16. Nixon, H. L. (2007). Constructing Diverse Sports Opportunities for People with Disabilities. *Journal of Sport & Social Issues, 31*(4), 417-433. https://doi.org/10.1177/0193723507308250
17. Norins Bardon, J., Harada, C., Parker, R., & Brecklinghaus, S. (2006). *An evaluation of the Special Olympics Europe/Eurasia Unified Football pilot-project: Findings from Austria, Poland, Romania, Serbia, and Slovakia.* University of Massachusetts and Special Olympics Europe/Eurasia. Retrieved from http://www2.ifsport.is/spec_ol_rannsoknir/Evaluation_ of_the_Special_Olympics_Europe-Eurasia_Unified_ Fo.pdf
18. Norins, J., Parker, R. C., & Siperstein, G. (2007). *Impact of the Special Olympics World Games on the attitudes of youth in China.* University of Massachusetts, Boston Special Olympics Global Collaborating Center. Retrieved from https://dotorg.brightspotcdn.com/cc/67/d611d1ca4951bd5dc3a7d0044b84/impact-of-china-games-on-youth-attitudes.pdf
19. Opić, S. (2012). Neke dvojbe u primjeni faktorske analize u području istraživanja odgoja i obrazovanja (pedagogiji). *Školski vjesnik, 61*(4), 481-496.
20. Pallant, J. (2016). *SPSS Survival Manual – A Step by Step Guide to Data Analysis using IBM SPSS* (6th edition). New York: McGraw-Hill Education.
21. Robertson, J., & Emerson, E. (2010). Participation in Sports by People with Intellectual Disabilities in England: A Brief Report. *Journal of Applied Research in Intellectual Disabilities, 23*(6), 616-622. https://doi.org/10.1111/j.1468-3148.2009.00540.x
22. Sidik, J. (2013). Konstrukcija upitnika satvova odgojiteljica prema inkluziji djece s teškoćama u razvoju u dječje vrtiće. *Specijalna edukacija i rehabilitacija, 12*(3), 309-334. https://doi.org/10.5937/specedreh12-4204
23. Šeatović, S., Nikolić, M. i Vantić-Tanjić, M. (2023). Pregled istraživanja uticaja sportske inkluzije na stavove opšte populacije prema osoba sa intelektualnim teškoćama. U M. Nikolić i M. Vanti-Tanjić (Ur.), Tematski zbornik radova (II dio) sa XIV međunardone naučno-stručne konferencije „Unapređenje kvalitete života djece i mladih“ (str. 51-60). Tuzla: Udruženje za podršku i kreativni razvoj djece i mladih.
24. Tsai, E. H.-L., & Fung, L. (2009). Parents experiences and decisions on inclusive sport participation of their children with intellectual disabilities. *Adapted Physical Activity Quarterly, 26*(2), 151-171. https://doi.org/10. 1123/apaq.26.2.151
25. United Nations. (2008). *Convention on the Rights of Persons with Disabilities and Optional Protocol.* United Nation. Preuzeto od https://www.un.org/disabilities/documents/ convent ion/convoptprot-e.pdf
26. Yu, S., Wang, T., Zhong, T., Qian, Y., & Qi, J. (2022). Barriers and Facilitators of Physical Activity Participation among Children and Adolescents with Intellectual Disabilities: A Scoping Review. *Healthcare, 10,* 233. https://doi.org/10.3390/healthcare10020233

Research in Education and Rehabilitation 2024; 7(1): 1-13. **DOI**: 10.51558/2744-1555.2024.7.1.1

APPENDIX

1.	Children and youth with intellectual disabilities can train together with their peers of typical development
2.	Children and youth with intellectual disabilities can be members of sports clubs that already exist in the community
3.	Children and youth with intellectual disabilities can participate in sports competitions together with peers of typical development
4.	The participation of children and youth with intellectual disabilities in sports competitions would negatively affect the quality of the competition
5.	Children and youth with intellectual disabilities should train in sports clubs that are intended exclusively for people with intellectual disabilities
6.	I would participate in a sports event in which people with intellectual disabilities also participate
7.	I would have nothing against my child training with a peer who has intellectual disabilities
8.	I would volunteer at a sports event where people with intellectual disabilities also participate*
9.	Training together with peers will have a positive effect on the community's acceptance of children and youth with intellectual disabilities
10.	The presence of children and youth with intellectual disabilities in sports clubs would negatively affect the sports progress of their peers*
11.	The presence of children and youth with intellectual disabilities in regular clubs would require adjustments that could affect the quality of training*
12.	Joint sports activities can negatively influence the self-esteem of children and youth with intellectual disabilities
13.	Participation in sports activities with peers gives children and youth with intellectual disabilities a sense of achievement
14.	Sports activities with peers will positively affect the physical and psychological health of children and youth with intellectual disabilities
15.	I would attend a sports event in which children and youth with intellectual disabilities participate together with peers of typical development*
16.	Joint sports activities could negatively affect the quality of life of children and youth with intellectual disabilities
17.	Playing sports is not a priority activity for children and youth people with intellectual disabilities*
18.	Joint sports activities could endanger the health of children and youth with intellectual disabilities*
19.	Community clubs should have the right to refuse to coach children and youth with intellectual disabilities*
20.	Children and youth with intellectual disabilities should have the right to train in community sports clubs*
21.	Children and youth with intellectual disabilities are not physically ready for sports activities with their peers
22.	It is more appropriate for children and youth with intellectual disabilities to compete with peers who also have intellectual disabilities
23.	Existing sports clubs are not ready to include children and youth with intellectual disabilities*
24.	Trainers do not have enough competencies required to work with children and youth with intellectual disabilities*
25.	Children and youth with intellectual disabilities would not be chosen as teammates by peers with typical development
26.	Children and youth with intellectual disabilities would not be accepted by peers with typical development
27.	Sports inclusion is not a desirable practice for children and youth with typical development*
28.	The presence of children and youth with intellectual disabilities in sports clubs encourages the acceptance of individual differences among their peers with typical development
29.	During joint sports activities, children and youth with intellectual disabilities are likely to express inappropriate behaviors*
30.	Trainers in existing sports clubs do not want to work with children and youth with intellectual disabilities*
31.	I would train in a sports club where people with intellectual disabilities also train
32.	Non-involvement of children and youth with intellectual disabilities in sports clubs in the community makes me angry
33.	I would be happy if in a sports competition won a team in which a person with intellectual disabilities also plays
34.	At a sports competition, I would support the club where people with intellectual disabilities play

*Excluded from the Scale