sciendo

Land Forces Academy Review
Vol. XXV, No 3(99), 2020

PARENTS AND EDUCATORS' PERCEPTIONS ON RECREATIONAL SPORTING ACTIVITIES' PRACTICE AND ITS EFFECTS ON DOWN SYNDROME CHILDREN'S

Brahim HARBACH
University of Abdelhamid Ibn Badis, Mostaganem, Algeria
brahim.harbach@univ-mosta.dz

Bendehiba DJOURDEM
University of Abdelhamid Ibn Badis, Mostaganem, Algeria
bendehiba.djourdem@univ-mosta.dz

Djamel MOKRANI
University of Abdelhamid Ibn Badis, Mostaganem, Algeria
djameleps@yahoo.fr

ABSTRACT

The aim of the current study is to explore the importance of recreational sporting activities' practice in developing social interactions of children with Down syndrome, and in maintaining communication, participation, teamwork, and socialization from parents and educators' perceptions. A descriptive approach has been deployed and a sample of 45 parents and 30 educators of children with Down syndrome were randomly selected from the psychological and pedagogical centre for children with mental disabilities, and from the association of El-Wafaa and scholastic and professional integration for trisomy 21 and autism children in Algeria. The results revealed that there is a statistical significance for recreational sports activities' practice. The results suggest that the practice of recreational sports activities has a positive effect on the social interactions of children with Down syndrome, as confirmed by parents and educators.

KEYWORDS: down syndrome children, interaction, recreational activities

1. Introduction

The mentally disabled child is a human being with feelings, emotions, and impulses that cannot be fully regulated or managed. As a result, several researches have been conducted by sociologists and sports-medicine professionals to find the best strategies for the care of mentally disabled children in general and of Down syndrome children in particular. Educationally, it is generally recognized that every child has the right to recreation whether being healthy or with special needs. Yet, most studies that have been conducted on sports and recreation attach a particular importance to children with special needs in general and to children with mental disabilities in particular (Adel & Zaki, 1965). The integration of specific recreational games

DOI: 10.2478/raft-2020-0025
© 2017. This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 License.

that would develop the child mental ability in all areas, especially in the social sphere; for instance, acquiring social values and ethics which can contribute to children's socialization (Harbach, Benzidane & Makrani, 2018).

After conducting a little research, the problem may be the absence or little research focused on recreational sporting activities' practice for Down syndrome children. The latter may lack social communication skills, mainly due to the absence of a sound socio-cultural heritage (Harbach, Benzidane & Makrani, 2018).

Throughout history, sports has developed and become one of the fundamental pillars upon which countries depend in all economic, social, commercial, cultural, and political fields, due to its great importance and direct impact on peoples' lives. In that context, individuals who have opportunities to practice recreational activities could be healthy and well-behaved. Accordingly, health generally includes physical, mental, and emotional health (Alison, 2003).

Yet, social development shortfall is one of main characteristics of some Down syndrome children, including those who lack social competence. In this context, Mattson and Lindeck emphasize that social skills are directly related to the number and types of behavioural and social patterns performed towards a child.

Accordingly, the opportunity for social interaction should be provided to a Down syndrome child. Moreover, acquiring social skills is an integral part of psychological care, contributing to a child's increasing bond to his/her environment (Rahman & Saleh, 2006).

Thus the following question may be raised: Does recreational sporting activities' practice have a positive effect on developing Dawn syndrome children's social interaction?

2. Material and Methods

A descriptive research approach was opted for this field study and a questionnaire was submitted to a sample of 45 parents and 30 educators of children with Down syndrome were randomly selected from the psychological and pedagogical centre for children with mental disabilities.

3. Results and Discussion

3.1. Parents' Perceptions on Recreational Sporting Activities' Practice and Its Effects on Down Syndrome Children's Social Interactions

Item 1: was on Down syndrome child practice of any activity, and if he/she is trying to explore things at home.

This question aims to know if the child is active and tries to explore things at home.

Table no. 1

Parents' Questionnaire Results Analysis on Question One

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	28	%62,22					
Sometimes	12	%26,66	18,52	5,99	Sign	2	0,05
never	5	%11,12					
Total	45	100%					

Regarding question one, the above table reveals that parents answered usually (62.22%), sometimes (26.66%), and never (11.12%). According to the statistical analysis, there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom in the parents' answers to question one, and in which the

critical value X^2 =18.52 is greater than the table value X^2=5.99. Thus, the biggest percentage (62.22%) which refers to answers to question one with "usually" suggests that the child has to ask and tries to explore his environment, which reflects his/her social integration.

Item 2: was on Down syndrome child participation in any team sports if he/she is encouraged to.

The aim behind asking this question is investigating the child's willingness to participate in group activities through encouragement.

Table no. 2

Parents' Questionnaire Results Analysis on Question Two

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	24	53,33%	9,72	5,99	Sign	2	**0,05**
Sometimes	14	31,11%					
never	7	15,56%					
Total	45	100%					

Regarding the results of Table no. 2, it is observed that parents who answered the first question with usually represent (53.33%), sometimes (31.11%), and never (15.56%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =9.72 is greater than the table value X^2=5.99. Hence, the higher percentage (53.33%) indicates that a Down syndrome child may engage and participate in group activities by encouraging his social interaction. This suggests that they prefer team sports.

Item 3: was on parents' use of polite expressions while their Down syndrome child is doing any work or any recreational sporting activities.

This question was asked to gain familiarity with the parents' way of interaction while practising recreational activities.

Table no. 3

Parents' Questionnaire Results Analysis on Question Three

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	25	55,55%	10,52	5,99	Sign	2	0,05
Sometimes	12	26,66%					
never	8	17,79%					
Total	45	100%					

As shown in Table no. 3 above, the results display that parents who answered usually represent (55.55%), sometimes (26.66%), and never (17.79%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =10.52 is greater than the table value X^2=5.99. The findings suggest that most parents use polite expressions while doing any work during recreational activities, which indicates that they are important in the way children are treated and integrated into society.

Item 4: was on the positive effect of recreational sporting activities' practice on a Down syndrome child. The aim of this question is to know if practising recreational activities has a positive effect on the Down syndrome child.

Table no. 4

Parents' Questionnaire Results Analysis on Question Four

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	32	71,11%	29,18	5,99	Sign	2	0,05
Sometimes	8	17,77%					
never	5	11,12%					
Total	45	100%					

According to Table no. 4 results, parents who answered usually represent (71.11%), sometimes (17.77%), and never (11.12%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =29.18 is greater than the table value X^2=5.99. Practically, it can be concluded that most parents agree that recreational sports are positive; demonstrating that recreational sports practice is playful, entertaining, and community-based.

Item 5: was on parents' overseeing and supervising others while doing recreational sporting activities when they need to.

The aim of this question is to know if parents are overseeing and supervising others.

Table no. 5

Parents' Questionnaire Results Analysis on Question Five

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	15	33,33%	3,32	5,99	No-Sign	2	0,05
Sometimes	10	22,22%					
never	20	44,45%					
Total	45	100%					

The results of Table no. 5 reveal that parents who answered usually represent (33.33%), sometimes (22.22%), and never (44.45%). According to the statistical analysis, there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =3.32 is less than the table value X^2=5.99. These results demonstrated that parents never supervise or oversee others' work during practice, which reflects their non-interaction with others for psychological reasons.

Item 6: was on recreational sporting activities role in integrating children into a social environment.

This question aims at exploring recreational sporting activities role in integrating children into a social environment.

Table no. 6

Parents' Questionnaire Results Analysis on Question Six

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	35	77,77%	40,12	5,99	Sign	2	0,05
Sometimes	6	13,33%					
never	4	8,90%					
Total	45	100%					

As shown in Table no. 6 above, parents who answered usually represent (77.77%), sometimes (13.33%), and never (8.90%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =40.12 is greater than the table value X^2=5.99. Thus, recreational sporting activities play a role in integrating Down syndrome children. This is because the human being is social by nature and is governed by a set of rules. Thus, individuals become part of the society when they are familiarized with these rules and regulations, and which will determine their social behaviour.

Item 7: was on establishing a communication relationship between members of the community.

This question was asked to investigate if recreational sporting activities' practice creates a communication relationship between members of the community.

Table no. 7

Parents' Questionnaire Results Analysis on Question Seven

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	27	60%	14,52	5,99	Sign	2	0,05
Sometimes	10	22,22%					
never	8	17,78%					
Total	45	100%					

The results of Table no. 7 reveal that parents who answered usually represent (60%), sometimes (22.22%), and never (17.78%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =14.52 is greater than the table value X^2=5.99. Based on parents' answers to question seven with a higher percentage (60%), it can be concluded that Down syndrome children establish a communication relationship, reflecting their social interaction through communication. Whereas parents' answers sometimes (22.22%) may suggest that there are natural cases among some parents of children with Down syndrome.

Item 8: was on the Down syndrome child interaction with others for a short time, such as offering candy, or suggesting playing games with others.

This question aims at investigating if the child interacts with others.

Table no. 8

Parents' Questionnaire Results Analysis on Question Eight

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	29	64,44%	19,72	5,99	Sign	2	0,05
Sometimes	9	20%					
never	7	15,56%					
Total	45	100%					

As shown in Table no. 8 above, parents who answered usually represent (64.44%), sometimes (20%), and never (15.56%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05

with 2 degree of freedom, and in which the critical value X^2 =19.72 is greater than the table value X^2=5.99. The higher percentage (64.44%) shows that the child interacts with others, which reflects the important role of his/her interaction with others as well. Whereas parents' answers sometimes (22.22%) may suggest that there are natural cases for some parents considering their child's interaction with others. This is due to some social perceptions that consider a Down syndrome child abnormal.

3.2. Educators' Perceptions on Recreational Sporting Activities' Practice and Its Effects on Down Syndrome Children's Social Interactions

Item 9: was on Down syndrome child being comfortable while practising recreational sporting activities.

This question aims to know if the child is comfortable while practising recreational sporting activities.

Table no. 9

Parents' Questionnaire Results Analysis on Question Nine

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	25	83,33%	33,80	5,99	Sign	2	0,05
Sometimes	3	10%					
never	2	6,67%					
Total	30	100%					

Regarding the results of Table no. 9, it is observed that parents who answered the first question with usually represent (83.33%), sometimes (10%), and never (6.67%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =33.80 is greater than the table value X^2=5.99. Thus, children feel comfortable practising recreational activities within a group; thus, developing collaborative behaviour, joint participation, exchanging ideas, and group engagement.

Item 10: was on Down syndrome child finding the environment an obstacle while practising recreational sporting activities.

This question aims to know if the child finds the environment an obstacle while practising recreational sporting activities.

Table no. 10

Parents' Questionnaire Results Analysis on Question Ten

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	26	86,68%	38,40	5,99	Sign	2	0,05
Sometimes	2	6,66%					
never	2	6,66%					
Total	30	100%					

The results of Table no. 10 reveal that parents who answered usually represent (86.68%), sometimes (6.66%), and never (6.66%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom and in which the critical value X^2 =44.20 is greater than the table value X^2=5.99. Parents' answers to question ten with

usually (86.68%), it suggests that the environment is an obstacle. This is due to the existing environment; thus, social communication must be encouraged among this category.

Item 11: was on the child's feeling ashamed of his/her body during recreational sporting activities' practice.

The aim behind this question is to know whether the Down syndrome child feels ashamed of his/her body during recreational sporting activities' practice.

Table no. 11

Parents' Questionnaire Results Analysis on Question Eleven

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	27	90%	44,20	5,99	Sign	2	0,05
Sometimes	1	3,33%					
never	2	6,67%					
Total	30	100%					

As shown in Table no. 11 above, parents who answered usually represent (90%), sometimes (3.33%), and never (6.67%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =44.20 is greater than the table value X^2=5.99. Hence, these children are ashamed of their body during practice, this due to the lack of educators' psychological and mental awareness.

Item 12: was on the most practised sporting activities by Down syndrome children.

This question aims to know the types of sporting activities practised by Down syndrome children.

Table no. 12

Parents' Questionnaire Results Analysis on Question Twelve

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	24	80%	29,60	5,99	Sign	2	0,05
Sometimes	4	13,33%					
never	2	6,67%					
Total	30	100%					

From Table no. 12, it is observed that parents who answered the first question with usually represent (80%), sometimes (13.33%), and never (6.67%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =29.60 is greater than the table value X^2=5.99. Thus, recreational sporting activities are the most practised sports by Down syndrome children.

Item 13: was on the Down syndrome child feelings about recreational sporting activities' practice.

The aim of this question is to know if the Down syndrome child likes practising recreational activities.

Table no. 13

Parents' Questionnaire Results Analysis on Question Thirteen

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	23	76,66%	25,40	5,99	Sign	2	0,05
Sometimes	4	13,34%					
never	3	10%					
Total	30	100%					

According to Table no. 13 results, parents who answered usually represent (76.66%), sometimes (13.34%), and never (10%). Furthermore, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =25.40 is greater than the table value X^2=5.99. Thus, recreational sporting activities significance lies in activating the sense of community among Down syndrome children.

Item 14: was on child feeling comfortable while practising recreational sporting activities' practice.

The aim behind this question is to know whether the Down syndrome child feels comfortable while practising recreational sporting activities' practice.

Table no. 14

Parents' Questionnaire Results Analysis on Question Fourteen

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	29	96,66%	52,20	5,99	Sign	2	0,05
Sometimes	1	3,34%					
never	0	0%					
Total	30	100%					

As shown in Table no. 14 above, parents who answered usually represent (96.66%), sometimes (3.34%), and never (0%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =44.20 is greater than the table value X^2=52.20. The results show the psychological impact of multiple recreational activities on Down syndrome children, providing feelings of pleasure and relaxation. This is generally due to games rules' simplicity, choice in playing, fun, and suspense.

Item 15: If the child interaction with others in practising activities and team sports.

This question aims at investigating if the child interacts with others in practising activities and team sports.

Table no. 15

Parents' Questionnaire Results Analysis on Question Fifteen

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	28	93,34%	48,60	5,99	Sign	2	0,05
Sometimes	1	3,33%					
never	1	3,33%					
Total	30	100%					

As shown in Table no. 15 above, parents who answered usually represent (93.34%), sometimes (3.33%), and never (3.33%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =48.60 is greater than the table value X^2=5.99.Hence, the result reveal that the child's interaction with others while recreational sporting activities' practice and team sports raises their spirits.

Item 16: was on Down syndrome child feeling superior while practising team sports compared to his/her sports' practice individually.

This question aims to know if the child feels superior while practising sports.

Table no. 16

Parents' Questionnaire Results Analysis on Question Sixteen

the answer	Repetition	percentage	K2 Calculated	K2 Tabular	Sign	df	level of sign
frequently	20	66,68%					
Sometimes	5	16,66%					
never	5	16,66%	15	5,99	Sign	2	0,05
Total	30	100%					

The results of Table no. 16 reveal that parents who answered usually represent (66.68%), sometimes (16.66%), and never (16.66%). Additionally, the statistical analysis reveals that there are statistically significant differences at a significance level of 0.05 with 2 degree of freedom, and in which the critical value X^2 =15 is greater than the table value X^2=5.99. Hence, it can be concluded that the child's feeling superior while practicing recreational sporting activities is owing to team solidarity. This is because community sense develops the child's capabilities in achieving superiority and excellence.

3.3. Data Discussion and Interpretation of the Results

Table no. 17

Parents' Questionnaire Results Analyses

Phrases	K2 Calculated	K2 Tabular	level of sign	Sign
Phrase01	18.52	5.99	0.05	Sign
Phrase02	09.72	5.99	0.05	Sign
Phrase03	10.52	5.99	0.05	Sign
Phrase04	29.18	5.99	0.05	Sign
Phrase05	03.32	5.99	0.05	No-Sign
Phrase06	40.12	5.99	0.05	Sign
Phrase07	14.52	5.99	0.05	Sign
Phrase08	19.72	5.99	0.05	Sign

The findings in Table no. 17 above indicate that there is a statistical significance in the parents' answers to items 1-4 and 6-8, and in which their critical value X^2 is greater than the table value X^2. These findings confirm the current research assumption (a). Thus, recreational sporting activities' practice has a positive effect on Down syndrome children interaction from parents' perceptions. In addition, these activities foster the child's impulses to achieve good results. These findings are also consistent with studies Gameel, Abu and Mona (2007).

Table no. 18

Educators' Questionnaire Results Analyses

	K2 Calculated	K2 Tabular	level of sign	Sign
Phrase01	33.80	5.99	0.05	Sign
Phrase02	38.40			Sign
Phrase03	44.20			Sign
Phrase04	29.60			Sign
Phrase05	25.40			Sign
Phrase06	52.20			Sign
Phrase07	48.60			Sign
Phrase08	15			Sign

The findings in Table no. 18 above show that there is a statistical significance in the parents' answers to items 1-8, and in which their critical value X^2 is greater than the table value X^2. These findings confirm the research assumption (b). Thus, recreational sporting activities' practice has a positive effect on Down syndrome children social interaction from educators' perceptions.

4. Conclusion

Recreational sporting activities have witnessed a great development throughout history mainly in curriculum and educational programmes' implementation. Hence, based on results analyses, discussion, and interpretations the researcher concludes that practising recreational sporting activities has a positive effect on Down syndrome children's social interaction. Moreover, these activities seek to construct an open social system by fostering the child's impulses to interact and communicate, developing community sense, and promoting self-confidence through teamwork in team sports rather than individual sports' practice.

REFERENCES

Abdel-Rahman, H., & Saleh, A.-T. (2006). *Administration et comportement de l'éducation*. 2nd Édition, Amman, Jordanie: Wael Publishing House.

Adel, K., & Zaki, Al. (1956). *Teaching strategies for students with special needs*. Amman: Dar Al Fikr Publishing House.

Alison, T. (2003). *Introducing Genetics from Mendel to molecule.* 1st Edition, Cheltenham, UK: Nelson Thornes Ltd.

Gameel, A.-H., Abu B.B.D., & Mona A.-K. (2007). *Teaching strategies for students with special needs*. Amman: Dar Al Fikr Publishing House.

Harbach, B., Mokrani, D., & Benzidane, H. (2016). The Effectiveness of the Usage of the Cooperative Learning in the Development of Certain Basic Competencies in Volleyball for 15-16 Years Old Pupils. *International Journal of Science Culture and Sport*, 171-176.

Harbach, B., Benzidan, H., & Makrani, D. (2018). The effect of an educational program using the training method on learning some basketball skills with simple intellectual disabilities 12-15 years. *Knowledge Magazine, Issue 25*, 19-9.