

## OCCUPATIONAL THERAPY AND LEISURE TIME OF PERSONS WITH DEVELOPMENTAL DIFFICULTIES

Emira Švraka<sup>1</sup>  
Naim Salkić  
Berka Klinić

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*Faculty of Health Studies, University of Sarajevo, Sarajevo, Bosnia and Herzegovina  
Center for Hearing and Speech Rehabilitation, Faculty of Health Studies, University of Sarajevo, Bosnia and Herzegovina  
Cerebral palsy associations of Federation of Bosnia and Herzegovina*

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### ABSTRACT

**Introduction:** Occupations can be divided into three subcategories: activities that are socially expected, activities that affirm health and support maintenance of health and leisure activities. Leisure time activities are an individual choice from personal interests and values, not because of the expectations of the environment. Leisure time activities can be divided into three basic groups: activities for rest, recreation and personal development. **Goals:** Occupational therapy and leisure time of persons with developmental difficulties are determining the duration of activities that are carried out due to rest, various forms of recreation and personal development and their mutual relationship. **Results:** In total 121 persons with cerebral palsy participated in the workshops of the Cerebral palsy associations of Federation of Bosnia and Herzegovina, 52 (42.98%) from Sarajevo, 14 (11.58%) from Gorazde, 29 (23.97%) from Zenica, 9 (7.43%) from Sapna and 17 (14.05%) from the Center „Koraci nade“ (Steps of hope) from Tuzla. Of the total sample (121 respondents) one hour per day listened to the music 29 (23.97%) participants, 2 hours 26 (21.49%), 3 and more hours 59 (48.76%) and not listen to the music at all 7 participants (5.78%). Of the total sample per day 1-hour watches TV and uses internet 20 (16.53%) participants, 2 hours 35 (28.92%), 3 and more hours 60 (49.59%) and no TV viewing or internet use 6 (4.96%) participants. For all four Associations, members of the Cerebral palsy associations of Federation of FBiH and the Center "Koraci nade", Tuzla, for leisure activities directed to rest, there is a statistically significant difference in the time spent in the activities:  $\chi^2 = 55.071$ ;  $df = 6$ ;  $p < .0001$ . For all four Associations, members of the Cerebral palsy associations of FBiH and Center "Koraci nade", Tuzla, there is a statistically significant difference in the frequency of participation in cultural and sports activities:  $\chi^2 = 162.758$ ;  $df = 12$ ;  $p < .0001$ . For all four Associations, members of the Cerebral palsy associations of Federation of FBiH and Center "Koraci nade", Tuzla, there is a statistically significant difference in time spent with companions, friends:  $\chi^2 = 34.137$ ;  $df = 2$ ;  $p < .0001$ . **Discussion:** In the study by Mlinarević *The Styles of Leisure Time of High School Pupils in Slavonija and Baranja*, 2004, outlined 43 leisure activities. The author combines the four leisure time styles: elite, hedonistic, sport-recreational and traditional-(non) conventional.

#### <sup>1</sup>Correspondence to:

Emira Švraka, PhD, Faculty of Health Studies, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

Phone: 387 61 205 112

E-mail: emigold@yahoo.com

*Conclusion: Inclusive policy should be represented in the curricula of all kindergartens, schools and faculties with planned leisure time activities. An integral part of all therapeutic approaches to persons with developmental difficulties should be the training of persons with developmental difficulties and their families for the adequate use of leisure time. Working with parents/family through "family-oriented practice" is a challenge for occupational therapists and other professionals in health care services and requires a significant change from a traditional child-centered approach. Systematic development of methodology of leisure time research and interdisciplinary approach to this vital problem is needed.*

**Key words:** occupational therapy, leisure activities, developmental difficulties

## INTRODUCTION

In the sociological sense, "leisure time" is defined as a time that is "out of work obligations, family duties and physiological needs, which an individual has at his own discretion and preferences, or time of active rest, recreation, positive development, socialization, humanization and creative personality confirmation. In the pedagogical literature, the term "leisure time" means "the time that an individual fills and shapes according to its own desires without any obligation and necessity" (Žiga et al., 2015).

Leisure time today is a modern and complex phenomenon, which is part of every man's life, every day and in every environment, but different in terms of age, gender, occupation, place of residence, development of the environment, degree of interest etc. Children's leisure time is the time left after completion of all school and work obligations.

Leisure time today is a modern and complex phenomenon, which is part of every man's life, every day and in every environment, but different in terms of age, gender, occupation, place of residence, development of the environment, degree of interest etc. Children's leisure time is the time left after completion of all school and work obligations. Work and leisure are natural, inseparable activities and human determinations. In modern conditions, it is difficult to plan and organize leisure time because there are so many content that somehow "abduct" our space of leisure time.

Occupations can be divided into three subcategories: activities that are socially expected, activities that affirm health and serve to maintain health and leisure activities.

1. *Activities that are socially expected* are those that an individual carries out in accordance with its age: going to school, earning a living, spouse's roles, child care or retirement.

2. *Activities that affirm health and care for its maintenance* are home assignments and tasks related to self-care. They affirm and maintain physical, mental and spiritual health: feeding, sleeping, brushing, bathing, finding and using shelters in case of bad weather, keeping the living space clean, visiting religious gatherings.

3. *Leisure activities* are chosen by individuals from their personal interests and values, not because of their environment expectations (Brunnić & Šimunović, 2017).

Leisure activities can be divided into three basic groups: activities for rest, recreation and personal development (Livazović, 2015).

1. *Activities for relaxation*, without any special and intense physical or psychological involvement in a home, public place or nature. They are needed for life and work.

2. *Activities for recreation*, with active rest, healthy entertainment or entertainment - walking, excursions, visiting sports and other events, tracking events on the radio, television, going to the cinema, theater, social gaming...

3. *Personality development activities* through various fields: educational, artistic, physical, technical, social and so on.

Working with parents/family through "family-oriented practice" is a challenge for occupational therapists and other professionals in health care services and requires a significant change from a traditional child-centered approach.

Whether and how happy and healthy is a child can be seen by not showing tiredness during the day, disinterest, lacks any problems with appetite or immunity, has time to socialize with friends, perform work tasks with joy. If there is too much obligation, the child will feel permanent tiredness, act listless and tense, complaining of headaches, lagging in performance, and the like.

The number of leisure activities per person depends on their age, their talents, and their emotional, physical and intellectual maturity, wishes and family circumstances.

It is important to balance between life in and out of the family.

In clinical work with children with developmental difficulties, far greater progress has been made than it was previously considered feasible. Although the individual potential is not unlimited, most children have a wide range of potential abilities. However, the way in which it develops depends largely on the type of experience involved (Stanley et al., 2003).

Occupational therapy has an important role in facilitating and assisting children with developmental difficulties in their first years of life. The role of early intervention is to provide services based on the family orientated model (Pačo et al., 2015).

## GOAL

Occupational therapy and leisure time of persons with developmental difficulties are determining the duration of activities that serve the relaxation, various forms of recreation and personal development, and their mutual relationship.

## METHOD

The Project of Cerebral palsy associations of FBiH (Alliance) *Inclusion of Persons with Cerebral Palsy and Inactivity Osteoporosis* (Project) is a research, diagnostic and educational project, with a duration of six months. The research is prospective, controlled and descriptive.

**The users of the service (sample)** were families who have members with the cerebral palsy, and are members of four Associations, members of the Alliance and users of the Center "Koraci nade" from Tuzla. Out of the total sample, there were 27 families who had children with CP (12 girls and 15 boys), at age from 9 to 17 years.

## Project Objectives

- Improvement and preservation of the functional ability of persons with cerebral palsy for self-care, work and leisure activities: adoption of new postural patterns, protective movements and positions, providing suggestions for the scope and type of physical activity, home physical and occupational therapy, as well as recommendations for proper nutrition and psychological support.
- Education of members of the Cerebral palsy associations of FBiH and teachers through workshops and lectures in Tuzla, Zenica, Gorazde and Sarajevo.
- Family members' education on how to organize leisure time spent in recreational activities, various forms of recreation, and personality development activities.

Within the Project, through the workshops "Leisure Time of Persons with Developmental Difficulties" was conducted a study *Occupational Therapy and Leisure Time of Persons with Developmental Difficulties*. As part of the workshops, the workbook "Leisure time for persons with developmental difficulties" was created for this study, which contains 8 questions about time spent in leisure activities. Three questions related to leisure activities (listening to music, time spent on TV, internet and inactivity/"idleness"). Two questions related to social interaction and peer relationships, and three questions related to activities for recreation and personality development. The questionnaire was published in the book *Inclusive Practice Part I - Rehabilitation in Inclusion*, (Švraka, et al., 2018).

## RESULTS

121 persons with cerebral palsy from 5 cities participated in the workshops: 52 (42.98%) from Sarajevo, 14 (11.58%) from Gorazde, 29 (23.97%) from Zenica, 9 (7.43%) from Sapna and 17 (14.05%) from the Center "Koraci nade" from Tuzla.

## Activities for rest/relaxation

Table 1. Ratio between leisure time spent listening to music and cities of respondents

Activity duration	Associations					Total
	Sarajevo	Goražde	Zenica	Sapna	Tuzla*	
hours	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
1	9 (17.3)	4 (28.6)	7 (24.1)	4 (44.4)	5 (29.4)	29 (23.97)
2	3 (5.8)	4 (28.6)	7 (24.1)	3 (33.3)	9 (52.9)	26 (21.49)
3 and more	37 (71.1)	6 (42.8)	12 (41.4)	2 (22.2)	2 (11.8)	59 (48.76)
does not listen to music	3 (5.8)	0	3 (10.3)	0	1 (5.9)	7 (5.78)
<b>Total</b>	<b>52 (42.98)</b>	<b>14 (11.57)</b>	<b>29 (23.97)</b>	<b>9 (7.43)</b>	<b>17 (14.05)</b>	<b>121 (100.00)</b>

\*Tuzla – Center „Koraci nade“

Of the total sample (121 respondents) one hour per day listen to music 29 (23.97%) of the respondents, 2 hours 26 (21.49%), 3 and more hours 59 (48.76%) and 7 (5.78%) respondents do not listen to the music.

There is a statistically significant difference in leisure time spent listening to the music according to the cities of the respondents:

$\chi^2 = 31.904$ ;  $df = 12$ ;  $p = .0014$ .

Table 2. Relationship of leisure time spent watching TV and internet usage and cities of respondents

Activity duration	Cities					Total
	Sarajevo	Goražde	Zenica	Sapna	Tuzla	
hours	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
1	5 (9.6)	2 (14.3)	4 (13.8)	3 (33.3)	6 (35.3)	20 (16.53)
2	13 (25.0)	7 (50.0)	7 (24.1)	2 (22.2)	6 (35.3)	35 (28.92)
3 and more	30 (57.7)	5 (35.7)	16 (55.2)	4 (44.4)	5 (29.4)	60 (49.59)
Does not watch TV	4 (7.7)	0	2 (6.9)	0	0	6 (4.96)
<b>Total</b>	<b>52 (42.98)</b>	<b>14 (11.57)</b>	<b>29 (23.97)</b>	<b>9 (7.43)</b>	<b>17 (14.05)</b>	<b>121 (100.00)</b>

Of 121 respondents one hour per day watch TV and use internet 20 (16.53%) of respondents, 2 hours 35 (28.92%), 3 and more hours 60 (49.59%) and 6 (4.96%) of respondents does not watch TV or use the Internet.

There is no statistically significant difference in leisure time spent watching TV and using the Internet, according to cities of respondents:  $\chi^2 = 15.716$ ;  $df = 12$ ;  $p = .2046$ .

Table 3. Relationship of leisure time spent in inactivity ("do nothing") and cities of respondents

Activity duration	Cities					Total
	Sarajevo	Goražde	Zenica	Sapna	Tuzla	
hours	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
1	13 (25.0)	5 (35.7)	6 (20.7)	2 (22.2)	11 (64.7)	37 (30.58)
2	10 (19.2)	4 (28.6)	8 (27.6)	3 (33.3)	4 (23.5)	29 (23.97)
3 and more	10 (19.2)	2 (14.3)	7 (24.1)	4 (44.4)	2 (11.8)	25 (20.66)
Completely	19 (36.5)	3 (21.4)	8 (27.6)	0	0	30 (24.79)
<b>Total</b>	<b>52 (42.98)</b>	<b>14 (11.58)</b>	<b>29 (23.97)</b>	<b>9(7.43)</b>	<b>17 (14.05)</b>	<b>121 (100.00)</b>

Of the 121 respondents, 37 (30.58%) of respondents one hour daily "do nothing", 2 hours "does nothing" 29 (23.97%), 3 and more hours 25 (20.66%) and all day/totally "do nothing" 30 (24.79%) of the respondents.

There is a statistically significant difference in leisure time spent in inactivity between the cities of respondents:  $\chi^2 = 22.464$ ;  $df = 12$ ;  $p = .0326$ .

Table 4. Relaxation activities - Association of children with cerebral palsy in Canton Sarajevo

	Listen to music	Watch TV and use Internet	Does nothing
Activity duration	N (%)	N (%)	N (%)
1 hour	9 (17.3)	5 (9.6)	13 (25.0)
2 hours	3 (5.8)	13 (25.0)	10 (19.2)
3 and more hours	37 (71.1)	30 (57.7)	10 (19.2)
Without activity	3 (5.8)	4 (7.7)	19 (36.5)
<b>Total</b>	<b>52 (100)</b>	<b>52 (100)</b>	<b>52 (100)</b>

There is a statistically significant difference in the time spent in relaxation activities:  $\chi^2 = 3.470$ ;  $df = 6$ ;  $p < .0001$ .

**Daily listen to music** for one hour 9 respondents (17.3%), two hours 3 respondents (5.8%), three and more hours daily 37 (71.1%), and does not listen to music 3 (5.8%). Listening to music can only mean that activity, and the result of 37 persons (71.1%) suggests that most persons with cerebral palsy (CP) are engaged in activities that only serve the relaxation, unless they listen to music with other activities. A total of 48 (92.3%) persons with CP **spend time with television or the Internet**, while only 4 persons (7.7%) do not spend time with TV and

Internet. The difference is in the duration of activity during the day so that 5 subjects (9.6%) spend one hour per day with TV and internet, two hours daily 13 (25.0%), three and more hours 30 (57.7 %) of respondents.

**They do nothing**, for one hour 13 (25.0%) respondents, 2 hours a day 10 (19.2%), 3 or more hours a day 10 (19.2%), and does not do any relaxation activities all day 19 respondents (36.5%). Data on not doing anything 3 or more hours a day, as well as throughout the day, 29 (55.8%) respondents give a picture of the quality of leisure time, more so if the respondents were not engaged in school or other work activities during the day.

Table 5. Relaxation activities - Center "Koraci nade", Tuzla

	Listen to music	Watch TV and use Internet	Does nothing
Activity duration	N (%)	N (%)	N (%)
1 hour	5 (29.4)	6 (35.3)	11 (64.7)
2 hours	9 (52.9)	6 (35.3)	4 (23.5)
3 and more hours	2 (11.8)	5 (29.4)	2 (11.8)
Without activity	1 (5.9)	0	0
<b>Total</b>	<b>17 (100)</b>	<b>17 (100)</b>	<b>17 (100)</b>

There is no statistically significant difference in the time spent in relaxation activities:  $\chi^2 = 8.818$ ;  $df = 6$ ;  $p = .1841$ . One-hour daily **listening to the music** 5 respondents (29.4%), two hours 9 respondents (52.9%), three hours and more 2 (11.8%), and one does not listen to music (5.9%). The majority of persons with CP listen to music two hours a day, then one hour a day, three or more hours listen to music a smaller number of persons, while only one person does not listen to music.

All 17 persons with CP spend time **with television or the Internet**. The difference is in the duration of activity dur-

ing the day, so that one hour of this activity per day have 6 respondents (35.3%), two hours daily 6 (35.3%), three hours and more 5 (29.4%) respondents.

**Does not have these activities during the day**, for one hour 11 (64.7%) respondents, 2 hours a day (23.5%), and 2 (11.8%) do not do anything for three hours or more daily. Although it is a small number of respondents, the fact that 2 (11.8%) of respondents do nothing during the day, three or more hours a day, points to inadequate and inhumane leisure time, more so if the respondents are not engaged in school or work activities during the day.



Table 6. Relaxation activities – Association of persons with cerebral palsy and other difficulties Sapna

	Listen to music	Watch TV and use Internet	Does nothing
Activity duration	N (%)	N (%)	N (%)
1 hour	4 (44.5)	3 (33.3)	2 (22.2)
2 hours	3 (33.3)	2 (22.2)	3 (33.3)
3 and more hours	2 (22.2)	4 (44.5)	4 (44.4)
Without activity	0	0	0
<b>Total</b>	<b>9 (100)</b>	<b>9 (100)</b>	<b>9 (100)</b>

There is no statistically significant difference in the time spent in relaxation activities:  $\chi^2 = 1.717$ ;  $df=4$ ;  $p = .7877$ . Daily **listening to music** for one hour 4 respondents (44.5%), two hours 3 respondents (33.3%), three and more hours daily 2 (22.2%). There are no respondents who do not listen to music. All 9 respondents **spend time with television or the internet**. The difference is in the

duration of activity during the day so that one hour of this activity per day have 3 respondents (33.3%), 2 hours daily 2 (22.2%), 3 hours and more 4 (44.5%) respondents. **During the day they do nothing**, one hour per day 2 (22.2%), two hours a day 3 (33.3%), while three or more 4 (44.4%) respondents do not do anything for three or more hours a day.

Table 7. Relaxation activities - Cantonal Association of Parents of Patients with Cerebral Palsy of Microcephaly and Hydrocephalus "Dlan" (Palm), Zenica

	Listen to music	Watch TV and use Internet	Does nothing
Activity duration	N (%)	N (%)	N (%)
1 hour	7 (24.1)	4 (13.7)	6 (20.7)
2 hours	7 (24.1)	7 (24.1)	8 (27.6)
3 and more hours	12 (41.5)	16 (55.3)	7 (24.1)
Without activity	3 (10.3)	2 (6.9)	8 (27.6)
<b>Total</b>	<b>29 (100)</b>	<b>29 (100)</b>	<b>29 (100)</b>

12 (41.5%), does not listen to music 3 (10.3%) respondents. The highest number of respondents listen to music three or more hours a day (41.5%), then listening to music for one or two hours 7 (24.1%), and 3 respondents (10.3%) does not listen to music. Listening to music can also imply engaging in other activities, and only in that case can be satisfied with the results.

27 (93.1%) of respondents spend **time with television, internet**, 2 (6.9%) respondents do not spend time with TV and the Internet. The difference is in the duration of

activity during the day, so that on one-hour activity daily have 4 (13.7%) respondents, two hours daily 7 (24.1%), three hours and more 16 (55.3%) respondents.

**During the day they do nothing**, for one hour daily 6 (20.7%) of respondents, 2 hours a day 8 (27.6%), and 7 (24.1%) do nothing for three or more hours daily, all day do nothing 8 (27.6%) of the respondents, 15 (51.7%) of respondents do not do anything three or more hours throughout the day.

Table 8. Relaxation activities - Association of patients with cerebral palsy and dystrophy BPK Gorazde

	Listen to music	Watch TV and use Internet	Does nothing
Activity duration	N (%)	N (%)	N (%)
1 hour	4 (28.6)	2 (14.3)	5 (35.7)
2 hours	4 (28.6)	7 (50.0)	4 (28.6)
3 and more hours	6 (42.8)	5 (35.7)	2 (1.3)
Without activity	0	0	3 (21.4)
<b>Total</b>	<b>14 (100)</b>	<b>14 (100)</b>	<b>14 (100)</b>

There are no statistically significant differences in the time spent in relaxation activities:  $\chi^2 = 10,473$ ;  $df = 6$ ;  $p = .1061$ .

Out of a total of 14 respondents, one hour *per day is listening to music* 4 (28.6%), two hours 4 (28.6%), three hours and more 6 (42.8%), all respondents listening to music. The largest number of 6 (42.8%) persons with CP listen to music three and more hours a day, one hour a day and two hours a day listen to music by 4 (28.6%) of the respondents. Listening to music can also involve doing other activities, only in this case we may be satisfied with the results.

All 14 (100.0%) respondents spend time *with television, the Internet*. The difference is in the duration

of activity during the day so that 2 (14.3%) respondents spend one hour a day on TV and the Internet, two hours a day 7 (50.0%), three and more hours a day 5 (35.7 %) of respondents. In the Association of Cerebral Palsy and Dystrophy of Bosnian-Podrinje Canton Gorazde the time spent with TV for two hours a day reported 7 (50.0%) of respondents and it is the recommended time.

*During the day do nothing*, for one hour per day 5 (35.7%) respondents, two hours a day 4 (28.6%), while three or more hours 2 (14.3%) respondents, and doing nothing throughout the day nothing 3 (21.4%) of the respondents. 5 (35.7%) of respondents did not do anything three or more hours during the day.

Table 9. Leisure activities that facilitate relaxation for all respondents

Activity duration	Listen to music		Watch TV and use Internet		Does nothing	
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
1 hour	29	24.0	20	16.5	37	30.6
2 hours	26	21.5	35	28.9	29	23.9
3 and more hours	59	48.7	60	49.6	25	20.7
Without activity	7	5.8	6	5	30	24.8
<b>Total</b>	<b>121</b>	<b>100</b>	<b>121</b>	<b>100</b>	<b>121</b>	<b>100</b>

Table 9 presents the data for all four Associations, members of the Cerebral palsy associations of Federation of Bosnia and Herzegovina and the Center "Koraci nade", Tuzla, for leisure activities that facilitate relaxation. There is a statistically significant difference in the time spent in relaxation activities:  $\chi^2 = 55.071$ ;  $df = 6$ ;  $p < .0001$ .

Daily *listening to music* for one hour 29 (24.0%) of respondents, two hours 26 (21.5%), three and more hours 59 (48.7), 7 (5.8%) respondents does not listen to music. Most respondents listen to music three or more hours a day 59 (48.7%), approximately the

same number listening to music one or two hours a day, while 7 (5.8%) respondents do not listen to music.

One hour per day in front of TV time and on Internet spend 20 (16.5%), two hours a day 35 (28.9%), three and more hours per day 60 (49.6%) respondents.

*Doing nothing during the day*, for one hour 37 (30.9%) of the respondents, 29 (24.0%) two hours a day, three or more hours 25 (20.7%), and do nothing during the whole day 30 (24.8%) of the respondents. Do nothing for 3 or more hours a day, as well as throughout a day a total of 55 (45.5%) respondents.

### Activities for recreation and personality development

Table 10. Cultural-Sports Activities - Association of children with cerebral palsy in Canton Sarajevo

Activity duration	Goes to cinema. theater	Engaged in sports	Have hobby
	N (%)	N (%)	N (%)
1 hour weekly	0	5 (9.6)	6 (11.5)
2 hours weekly	0	6 (11.5)	12 (23.1)
3 hours weekly	0	2 (3.8)	1 (1.9)
1 per week	0	0	0
1 per months	9 (17.3)	0	0
1 per year	11 (21.2)	0	0
No activity	32 (61.5)	39 (75.0)	33 (63.5)
<b>Total</b>	<b>52 (100)</b>	<b>52 (100)</b>	<b>52 (100)</b>

In Table 10, are presented data on the activities of persons with CP, which are more intent on personal development, through different areas of physical, educational, social and similar activities, as well as activities that make various forms of recreation, active vacation, healthy recreation or entertainment.

There is a statistically significant difference in the frequency of participation in cultural-sports activities:  $\chi^2 = 60.463$ ;  $df = 10$ ;  $p < .0001$ .

**Going to cinema**, theater once a month 9 (17.3%) of respondents, once a year 11 (21.2%), does not go to the cinema, theater 32 (61.5%) of the respondents.

**They do sports** once a week 5 (9.6%), two hours per week 6 (11.5%), three hours per week 2 (3.8%), are not involved in sport 39 (75.0%) of respondents.

Most of the respondents are not engaged in sports. The content of leisure time includes a variety of **activities-hobbies** and engaging in these activities points to the close relationship of the respondents with that activity. Involved in hobbies one hour per week are 6 (11.5%) of respondents, 2 hours a week 12 (23.1%), 3 and more hours a week 1 (1.9%). Without hobbies are 33 (63.5%) of respondents.

Table 11. Cultural-Sports Activities – Center "Koraci nade"

	Goes to cinema. theater	Engaged in sports	Have hobby
Activity duration	N (%)	N (%)	N (%)
1 hour weekly	0	2 (11.8)	4 (23.5)
2 hours weekly	0	0	2 (11.8)
3 hours weekly	0	5 (29.4)	6 (35.3)
1 per week	1 (5.9)	0	0
1 per months	4 (23.5)	0	0
1 per year	5 (29.4)	0	0
No activity	7 (41.2)	10 (58.8)	5 (29.4)
<b>Total</b>	<b>17 (100)</b>	<b>17 (100)</b>	<b>17 (100)</b>

Table 11 shows data on the activities of persons with CP, who are more likely to develop their personality, through various areas of physical, educational, educational, social and similar activities as well as activities that make various forms of recreation, active recreation, healthy recreation or fun.

There is a statistically significant difference in the frequency of participation in cultural-sports activities:  $\chi^2 = 35.364$ ;  $df = 12$ ;  $p = .0004$ .

**Going to cinema**, theater once a week is 1 (5.9%) respondent, once a month 4 (23.5%), once a year 5 (29.4%),

does not go to the cinema, theater 7 (41.2%) of the respondents.

**Involved in sports** once a week are 2 (11.8%) of respondents, two hours a week none, three hours a week 5 (29.4%). Participation in sports of persons with cerebral palsy shows that 7 (41.2%) respondents deal with sports, and 10 (58.8%) do not deal with sport at all.

**Hobbies** practice 1 hour weekly 4 (23.5%) respondents, 2 hours a week 2 (11.8%), 3 and more hours per week 6 (35.3%), without hobbies are 5 (29.4%), while 12 (70.6%) of respondents have hobbies.

Table 12. Cultural-Sports activities - Association of persons with cerebral palsy and other difficulties Sapna

	Goes to cinema. theater	Engaged in sports	Have hobby
Activity duration	N (%)	N (%)	N (%)
1 hour weekly	0	1 (11.1)	1 (11.1)
2 hours weekly	0	1 (11.1)	3 (33.3)
3 hours weekly	0	1 (11.1)	1 (11.1)
1 per week	0	0	0
1 per months	2 (22.2)	0	0
1 per year	0	0	0
No activity	7 (77.8)	6 (66.7)	4 (44.5)
<b>Total</b>	<b>9 (100)</b>	<b>9 (100)</b>	<b>9 (100)</b>



There is no statistically significant difference in the frequency of participation in cultural-sports activities:  $\chi^2 = 10.324$ ;  $df = 8$ ;  $p = .2430$ .

Note: All zero values have been dropped out here for 1 time a week, and a small number of cases is influencing the test results.

**Going to cinema, theater** once a week there is no respondents, once a month 2 (22.2%), once a year no respondents, while in total 7 (77.8%) of the respondents does not go to the cinema, theater.

**Dealing with sports** once a week is one respondent (11.1%), two hours per week 1 (11.1%), three hours

per week 1 (11.1%). Participation in sports of persons with cerebral palsy shows that only 3 (33.3%) of respondents deal with sports, and 6 (66.7%) of respondents from Sapna do not deal with sport at all.

The content of leisure time includes a variety of **activities-hobbies** and engaging in these activities points to the close relationship of the subject with that activity. Involved in hobbies for 1-hour weekly is 1 (11.1%) respondent, 2 hours weekly 3 (33.3%), 3 and more hours per week 1 (11.1%), while no hobbies have 4 (44.5%), respondents.

Table 13. Cultural-Sports Activities - Cantonal Association of Parents of Persons with Cerebral Palsy, Microcephaly and Hydrocephalus "Dlan", Zenica

	Goes to cinema. theater	Engaged in sports	Have hobby
Activity duration	N (%)	N (%)	N (%)
1 hour weekly	0	3 (10.3)	6 (20.7)
2 hours weekly	0	1 (3.4)	2 (6.9)
3 hours weekly	0	1 (3.4)	6 (20.7)
1 per week	1 (3.4)	0	0
1 per months	5 (17.3)	0	0
1 per year	6 (20.7)	0	0
No activity	17 (58.6)	24 (82.8)	15 (51.7)
<b>Total</b>	<b>29 (100)</b>	<b>29 (100)</b>	<b>29 (100)</b>

There is a statistically significant difference in the frequency of participation in cultural-sports activities:  $\chi^2 = 43.250$ ;  $df = 12$ ;  $p < .0001$

**Going to cinema, theater** once a week is 1 (3.4%) respondent, once a month 5 (17.3%), once a year 6 (20.7%) respondents, not going to the cinema, theater 17 (58.6%) of respondents.

**Engaged in sports** once every week are 3 (10.3%)

of respondents, two hours per week 1 (3.4%), three hours per week 1 (3.4%), do not deal with sports 24 (82.8%) respondents. Most of the respondents do not deal with sports.

**Hobbies** were practiced for 1 hour per week by 6 (20.7%), 2 hours per week 2 (6.9%), 3 and more hours per week by 6 (20.7%) respondents. Without hobbies are 15 (51.7%) respondents.

Table 14. Cultural-sports attitudes - Association of Persons with Cerebral Palsy and Dystrophy BPK Goražde

	Goes to cinema. theater	Engaged in sports	Have hobby	Goes to cinema. theater
Activity duration	N (%)	N (%)	N (%)	N (%)
1 hour weekly	0	0	2 (14.3)	2
2 hours weekly	0	1 (7.1)	2 (14.3)	3
3 hours weekly	0	0	1 (7.1)	1
1 per week	0	0	0	0
1 per months	4 (28.6)	0	0	4
1 per year	1 (7.1)	0	0	1
No activity	9 (64.3)	13 (92.9)	9 (64.3)	31
<b>Total</b>	<b>14 (100)</b>	<b>14 (100)</b>	<b>14 (100)</b>	<b>42</b>

There is no statistically significant difference in the frequency of participation in cultural-sports activities:  $\chi^2 = 19.02$ ;  $df = 10$ ;  $p = .0399$ .

**Going to cinema**, theater once a month are 4 (28.6%), once a year 1 (7.1%), does not go to the cinema, theater 9 (64.3%) of the respondents.

**Involved in sports** once per week is 1 (7.1%) respondent,

2 hours per week 0 (0.0%), 3 hours per week 0 (0.0%), not involved in sports are 13 (92.9%) of respondents,

**Hobbies** have 1 hour weekly 2 (14.3%) respondents, 2 hours weekly 2 (14.3%) respondents, 3 hours and more 1 (7.1%) respondent. Without hobbies are 9 (64.3%) of respondents.

Table 15. Cultural sports activities

	Goes to cinema. theater	Engaged in sports	Have hobby	Goes to cinema. theater
Activity duration	N (%)	N (%)	N (%)	N (%)
1 hour weekly	0	12 (9.9)	19 (15.7)	31
2 hours weekly	0	9 (7.4)	24 (19.8)	33
3 hours weekly	0	15 (12.4)	17 (14.0)	32
1 per week	2 (1.6)	0	0	2
1 per months	24 (19.8)	0	0	24
1 per year	23 (19.0)	0	0	23
No activity	72 (59.5)	85 (70.2)	61 (50.4)	218
<b>Total</b>	<b>121 (100)</b>	<b>121 (100)</b>	<b>121 (100)</b>	<b>363</b>

There is a statistically significant difference in the frequency of participation in cultural sports activities:  $\chi^2 = 162.758$ ;  $df = 12$ ;  $p < .0001$ .

**Going to cinema**, theater once a week are 2 (1.6%) of respondents, once a month 24 (19.8%) of respondents, once a year 23 (19.0%) of respondents, does not go to the cinema, theater 72 (59.5%) of the respondents.

They are **engaged in sports** once a week 12 (9.9%),

two hours per week 9 (7.4%), three hours per week 15 (12.4%), while 85 (70.2%) of respondents are not involved in sports. Most of the respondents are not engaged in sports.

**Hobbies** activities were conducted for 1 hour per week 19 (15.7%), 2 hours per week 24 (19.8%), 3 and more hours per week 17 (14.0%) of respondents. Without hobbies are 61 (50.4%) respondents.

## Social interaction

Table 16. Time spent with friends - Association of children with cerebral palsy of Canton Sarajevo

	Close friends	Time spent with them
Activity duration	N (%)	N (%)
1-2	13 (25)	37 (71.1)
3-more	31 (59.6)	6 (11.5)
No friends	8 (15.4)	9 (17.3)
<b>Total</b>	<b>52 (100)</b>	<b>52 (100)</b>

There is a statistically significant difference in time spent with friends:  $\chi^2 = 28.471$ ;  $df = 2$ ;  $p < .0001$ .

Out of a total of 52 respondents, 13 (25.0%) respondents have one or two friends, while three or more friends have 31 (59.6%) respondents. Without friends

are 8 (15.4%) of the respondents. Time spent with friends for one to two hours a day have 37 (71.1%) of respondents, three or more hours daily with friends 6 (11.5%) of the respondents. Do not spend time with friends 9 (17.3%) of the respondents.

Table 17. Time spent with friends – Center "Koraci nade"

	Close friends	Time spent with them
Activity duration	N (%)	N (%)
1-2	4 (23.5)	5 (29.4)
3-more	13 (76.5)	12 (70.6)
No friends	0	0
<b>Total</b>	<b>17 (100)</b>	<b>17 (100)</b>

There is no statistically significant difference in time spent with friends:  $\chi^2=0$ ;  $df = 1$ ;  $p = 1$   
 Out of a total of 17 respondents from the Center "Koraci nade", Tuzla, 5 (29.4%) respondents have one or two friends, while three or more friends

have 12 (70.6%) respondents.  
 Time spent with friends for 1 to 2 hours per day have 4 (23.5%) of respondents, 12 (70.6%) of respondents spend three or more hours daily with friends.

Table 18. Time spent with friends - Association of persons with cerebral palsy and other difficulties Sapna

	Close friends	Time spent with them
Activity duration	N (%)	N (%)
1-2	2 (22.2)	2 (22.2)
3-more	6 (66.7)	6 (66.7)
No friends	1 (11.1)	1 (11.1)
<b>Total</b>	<b>9 (100)</b>	<b>9 (100)</b>

There is no statistically significant difference in time spent with companions, friends:  $\chi^2 = 0$ ;  $df = 2$ ;  $p = 1$   
 Out of a total of 9 respondents from Sapna, 2 (22.2%) respondents have one or two friends, while three and more friends have 6 (66.7%) of respondents. With-

out friends is 1 (11.1%) respondent. Time spent with friends for 1 to 2 hours a day have 2 (22.2%) of respondents, 6 (66.7%) of respondents spend three or more hours daily with friends. Do not spend time with friends 1 (11.1%) a respondent.

Table 19. Time spent with friends - Cantonal Association of Parents of Patients with Cerebral Palsy, Microcephaly and Hydrocephalus "Dlan", Zenica

	Close friends	Time spent with them
Activity duration	N (%)	N (%)
1-2	4 (13.8)	14 (48.3)
3-more	17 (58.6)	7 (24.1)
No friends	8 (27.6)	8 (27.6)
<b>Total</b>	<b>29 (100)</b>	<b>29 (100)</b>

There is a statistically significant difference in time spent with friends:  $\chi^2 = 9.722$ ;  $df = 2$ ;  $p = .0077$   
 Out of a total of 29 respondents, 4 (13.8%) respondents have one or two friends, while three or more friends have 17 (58.6%) of the respondents. With-

out friends are 8 (27.6%) of the respondents. Time spent with friends for one to two hours a day have 14 (48.3%) respondents, three or more hours daily with friends spend 7 (24.1%) of the respondents. Do not spend time with friends 8 (27.6%) of the respondents.

Table 20. Time spent with friends - Association of persons with cerebral palsy and dystrophy BPK Goražde

	Close friends	Time spent with them
Activity duration	N (%)	N (%)
1-2	3 (21.4)	9 (64.3)
3-more	9 (64.3)	3 (21.4)
No friends	2 (14.3)	2 (14.3)
<b>Total</b>	<b>14 (100)</b>	<b>14 (100)</b>

There is no statistically significant difference in time spent with companions, friends:  $\chi^2 = 6.000$ ;  $df = 2$ ;  $p = .0498$ .

Of the 14 respondents from Gorazde 3 (21.4%) have one or two other friends, three or more friends have

9 (64.3%) of respondents, and without friends are 2 (14.3%) of respondents. Time spent with friends for one to two hours per day have 9 (64.3%) respondents, three and more hours per day 3 (21.4%) of respondents.

Table 21. Time spent with friends

	Close friends	Time spent with them
Activity duration	N (%)	N (%)
1-2	26 (21.5)	67 (55.4)
3-more	76 (62.8)	34 (28.1)
No friends	19 (15.7)	20 (16.5)
<b>Total</b>	<b>121 (100)</b>	<b>121 (100)</b>

There is a statistically significant difference in time spent with friends:  $\chi^2 = 34.137$ ;  $df = 2$ ;  $p < .0001$ .

Out of a total of 121 respondents, 26 (21.5%) have one or two friends, while three or more friends have 76 (62.8%) respondents. Without friends are 19 (15.7%) of respondents. Time spent with friends for one to two hours a day have 67 (55.4%), three or more hours daily with friends spend 34 (28.1%) of respondents. 20 (16.5%) of the respondents do not spend time with friends.

## DISCUSSION

In the study by Mlinarević V. **Styles of Leisure Time of High School Pupils in Slavonija and Baranja**, 2004, 43 Leisure activities were listed. The author groups the styles of leisure time of the young in 4 styles: elite, hedonistic, sport-recreational and traditional-non-conventional (Mlinarević, 2004).

Passive relaxation is reflected in hedonistic content: consumers fun and parties in cafes, bistros and disco clubs, watching television and videos, listening to different types of music and contemporary communication. The research results show the high school students leisure time as active participation, creativity and self-realization in structured content and passivity in the consumers' and story leisure time space. The local and wider community is responsible for creating favorable material, spatial and human conditions and immediate help for young persons to formulate and quality structure of leisure time (Milanović, 2004).

Leisure time provides great opportunities for the creative and cultural development of a personality, and as a general social phenomenon does not know the age limits. The Leisure time should be performed satisfactorily with activities selected by the person. The

Leisure time phenomenon, as a space for self-actualization and personalization, plays an important role in the maturing process and is an understandable interest in researching and improving this area of educational activity. Treatment in this area involves exploring interesting leisure activities and developing the skills of Leisure activities through participation in activities (Švraka & Salkić, 2016).

The leisure time of youth is a great time space. With its animation, content and forms, it is applicable and interpolated in the life of the youth. If it is insufficiently designed and lead, leisure time can become negative. It is therefore important to assist young persons in organizing and structuring leisure time, as well as involving young persons in creating programs. Take care of their real needs for fun, socializing, falling in love, but also for activities that involve challenges and require physical and mental effort (Mlinarević, 2004).

In clinical work with children with developmental difficulties, far greater progress has been made than was previously considered feasible. Although the individual potential is not unlimited, most children have a wide range of potential abilities. However, the way in which they develop depends largely on the type of experience involved (Stanley et al., 2003).

Children with developmental difficulties need assistance in developing options for leisure activities and adjusting the environment to perform leisure activities according to their capabilities. Treatment in this area involves exploring interesting leisure activities and developing the skills of leisure activities through participation in activities. Training activities are a simple and very useful method to achieve maximum autonomy and functionality of the child while also having fun activity.

There is nothing impinging on a child, a story is taught in the story and the game, so the activities listed below are part of the game, not the classic treatment. Children with developmental difficulties are more involved in leisure activities themselves or with their parents because they depend more on the help of their parents/guardians than their peers (Švraka & Avdić, 2012).

## CONCLUSIONS

### 1. Relaxation activities:

- Of the total sample of 121 respondents one hour per day listen to music 29 (23.97%) of the respondents, 2 hours 26 (21.49%), 3 and more hours 59 (48.76%) of the respondents and 7 (5.78%) do not listen to music. There is a statistically significant difference in leisure time spent listening to the music and cities of the participants:  $\chi^2 = 31.904$ ;  $df = 12$ ;  $p = .0014$ .
- Of the total sample 37 (30.58%) of the respondents one hour per day, "do nothing", 2 hour "does nothing" 29 (23.97%), 3 and more hours per day 25 (20.66%) respondents, and all day/completely "do nothing" 30 (24.79%) of the respondents. There is a statistically significant difference in leisure time spent in inactivity towards the cities of the participants:  $\chi^2 = 22.464$ ;  $df = 12$ ;  $p = .0326$ .
- For 52 respondents of the Cerebral Palsy Association of Canton Sarajevo there is a statistically significant difference in the time spent in recreational activities:  $\chi^2 = 43.470$ ;  $df = 6$ ;  $p < .0001$ .
- There is no statistically significant difference in the time spent in activities that are used for relaxation for the respondents from the Center "Koraci nade" in Tuzla, the Dlan association from Zenica and the associations from Gorazde and Sapna. A small number of respondents are certainly affecting the test results.
- For all four Associations, members of the Cerebral palsy associations of FBiH and the Center "Koraci nade", Tuzla, for leisure activities for relaxation, there is a statistically significant difference in the time spent in these activities:  $\chi^2 = 55.071$ ;  $df = 6$ ;  $p < .0001$

### 2. Activities for recreation and personality development:

- There are statistically significant differences in the frequency of participation in cultural-sports activities for 52 respondents of the Cerebral Palsy

Association of Canton Sarajevo:  $\chi^2 = 60.463$ ;  $df = 10$ ;  $p < .0001$ .

- For 17 respondents of the Center "Koraci nade" from Tuzla there is a statistically significant difference in the frequency of participation in cultural-sports activities:  $\chi^2 = 35.364$ ;  $df = 12$ ;  $p = .0004$ .
- For 29 respondents from the Association Dlan in Zenica there is a statistically significant difference in the frequency of participation in cultural-sports activities:  $\chi^2 = 43.250$ ;  $df = 12$ ;  $p < .0001$ .
- There is no statistically significant difference in the frequency of participation in cultural-sports activities for associations from Sapna and Gorazde.
- TFor all four Associations, members of the Cerebral palsy associations of FBiH and the Center "Koraci nade", Tuzla, there is a statistically significant difference in the frequency of participation in cultural sports activities:  $\chi^2 = 162.758$ ;  $df = 12$ ;  $p < .0001$ .

### 3. Social interaction:

- There are statistically significant differences for 52 respondents of the Cerebral Palsy Association of Canton Sarajevo in the time spent with friends:  $\chi^2 = 28.471$ ;  $df = 2$ ;  $p < .0001$ .
- For 29 respondents from the Association Dlan from Zenica, there is a statistically significant difference in time spent with friends:  $\chi^2 = 9.722$ ;  $df = 2$ ;  $p = .0077$ .
- There is no statistically significant difference in the time spent with friends at the Center "Koraci nade", and associations from Gorazde and Sapna.
- For all four Associations, members of the Cerebral palsy associations of the Federation of Bosnia and Herzegovina and Center "Koraci nade", Tuzla, there is a statistically significant difference in time spent with friends:  $\chi^2 = 34.137$ ;  $df = 2$ ;  $p < .0001$ .

4. Inclusive policy should be represented in the curricula of all kindergartens, schools and faculties with planned leisure time activities.

An integral part of all therapeutic approaches to persons with developmental difficulties should be the training of persons with developmental difficulties and their families for the adequate use of leisure time. Working with parents/family through "family-oriented practice" is a challenge for occupational therapists and other professionals in health care services and requires a significant change from a traditional child-centered approach.



Systematic development of methodology of Leisure time research and interdisciplinary approach to this vital problem is needed.

## Recommendations

- The time spent with television and the Internet for three or more hours a day is a large part of every day, which indicates inadequate, inadequate and inhumane leisure time, more so if persons are not engaged in school or work activities during the day. In this case, it is necessary to support not only the person with cerebral palsy but also its family to reduce the time spent with TV and the Internet for up to two hours a day.
- Improving the quality of life of persons with cerebral palsy and other difficulties by involving them to sports programs should be one of the priority tasks of families, experts, and associations of persons with cerebral palsy. True, everyone needs more support from the community. It is very important to subdue interests, stimulate curiosity, and support persons with difficulties that show interest in a specific hobby, because hobbyism should be understood as a space of self-actualization and personality achievement.
- Cultural activities for all - The fact that more than half of the persons surveyed do not go to the cinema and the theater points to the need to investigate the causes of this.
- Information on socializing with friends of respondents suggests good socialization and it can be concluded that the persons with cerebral palsy pays attention to friendship.
- It is necessary to allow persons with developmental difficulties the choice of leisure activities.

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