



Daily activities of employed persons with visual impairment

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ABSTRACT

Introduction: The challenges faced by visually impaired people in their efforts to integrate themselves into the labor market and the general position of persons with disabilities, regarding their employment and social security, is extremely difficult. Employment is the best safeguard against social exclusion and one of the main ways to achieve a full involvement in the society of the visually impaired people.

Methods: The research was conducted on a sample of 25 visually impaired people employed at "TMP" d.o.o. Sarajevo. The study was used as a cross-sectional survey method wherein data were collected through appropriate survey instruments, using a modified survey questionnaire.

Results: Out of the total number of respondents, 48% are male and 52% are female. The majority of respondents use other persons' assistance when moving ($n = 16$). The largest number of respondents had 100% visual impairment ($n = 17$). The majority of subjects have no strenuous physical activity. The largest number of respondents during the previous week walked for at least 10 minutes, in the sequence of all 7 days and was driven in motor vehicles. When doing household chores, 56% of respondents said they had no difficulty. The most common difficulties in recreation, sports and physical activity in leisure time, that were encountered by 32% of respondents, are poor sound signaling and difficulties of visual nature, though 68% of respondents said that they had no difficulty in their recreational activities.

Conclusion: The daily activities of employed visually impaired persons have a positive impact on their quality of life. Various are occupations of visually impaired people that improve their quality of life.

Keywords: Vision impaired persons; daily activity; quality of life

INTRODUCTION

Disability is a condition characterized by a decrease or loss of ability to perform daily activities and participates in social life due to impairment in certain

parts of the body and the physical system, as well as obstacles caused by the physical, social, cultural environment, and communication (1,2). A person with a disability means a person with long-term physical, mental, intellectual or sensory impairment, which in interactions with by barriers hampers his or her full and effective participation in society, on an equal basis with other people (3).

Many authors argue that the participation of persons with disabilities in the wide community of employed people is one of the main factors

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on which their social (re)integration depends on general scope. It is precisely the process of job training as well as the employment of people with disabilities that enable these persons to attain the status of active members of society, who independently exercise their socio-economic status, and thus actively contribute to the overall social well-being. On the other hand, the unemployment of persons with disabilities is a major problem that calls into question the meaning of overall habilitation and rehabilitation of people with disabilities (4).

The United Nations Convention on the Rights of Persons with Disabilities is the first human rights document passed in the 21st century, as well as the fastest-passed document in the history of international law. The convention is dealing with the rights of persons with disabilities, but it is also addressed to the society as a whole and the need to be ensured ensures that every person contributes to that society under his or her abilities and capabilities (5). Employment is one of the most powerful mechanisms for achieving social inclusion of marginalized groups. The issue of employment of disabled people is one of the most important when talking about their status because employment is a way to increase someone's inclusion in society, a source of income that contributes to the stronger independence of disabled people (6).

In Bosnia and Herzegovina, the degree of social inclusion and level of employability of people with disabilities in the labor market are very low. The best way of social care for people with disabilities is to create conditions for their employment and proper integration into the community (7).

Through a series of social reforms, Bosnia and Herzegovina want to improve the standard of its citizens and aligning the standard with the standards of people in EU countries, thereby it wants to speed up the process of joining the community of developed European countries. These goals will not be achieved without ensuring the more humane treatment of persons with disabilities and providing for services capable to ensure their inclusion in the activities of the BiH society, as is stated in the Madrid Declaration 2003 (8). Centuries of effort to change attitudes toward people with disabilities, consequently

the blind and visually impaired have brought about improvements in the process of normalization, social inclusion, and improvement of their quality of life (9).

Vocational rehabilitation is an integral part of the rehabilitation of persons with disabilities, which aims to facilitate their complete work and social integration (10). It does not only solely aim to enable a disabled person to work but also contains the work and social integration of a person with a disability for the independent, as much as possible, and successful inclusion in life and work (11,12). The process of training for work as well as employment is the best form of protection (13).

The right to work is often a disputed right for people with disabilities. Therefore, employment policies for people with disabilities achieve their all-around participation in society. Such persons gain their material safeguards through employment, greater independence in deciding on life issues. Furthermore, they are perceived differently by community members, and, with an appropriate system of vocational rehabilitation, many disabled people can become full and equal members of society and contribute to their own and general well-being, instead of being recipients of assistance and beneficiaries of various benefits (14).

The term "activities of daily living" (ADL) or "daily activities" were first referred to in 1935 in the *Journal of Health and Physical Education*. The physiotherapist Edith Buchwald was the first to use the term "activities of daily living" in 1949 (15). Day-to-day activities are used in rehabilitation as an umbrella term referring to self-care and include those activities or tasks that people perform in their daily lives (15). The day-to-day activities are considered as permanent indicators of "activity limitations," according to the World Health Organization's Dimensional Framework of Disability (16).

Quality of life refers to the degree of inclusion in the community and the opportunities afforded to individuals to meet their needs and desires. One of the basic factors of quality of life is education, followed by employment. Employment is not a reward that a person receives; it is a right that is acquired by legal acts and regulations (17).

A disabled person wants to be as productive as any other person, to be respected and present on all front lines of life and work (18).

The objective of this research is to examine the presence of certain daily activities and their impact on the quality of life at visually impaired persons in work, we will examine the health and family status and we will present the occupations of the disabled.

METHODS

Study groups

The research was conducted on a sample of 25 visually impaired persons employed at "TMP" d.o.o. Sarajevo, company for the employment of the blind and visually impaired and at JU Centre for the Blind and Visually Impaired Children and Youth – CZSD. Regarding the agreement on this topic, we received from the institution where the research was carried out. "TMP" d.o.o. Sarajevo, the Employment Agency for the Blind and Visually Impaired, and at the JU Center for the Blind and Visually Impaired Children and Youth (CZSD) and each employee who was involved in the research. This research is a cross-sectional survey, where data are collected through appropriate research instruments using a modified survey questionnaire. The poll time was April 2016.

In the research was used a modified questionnaire, according to the needs of our research and was derived from:

1. The revised questionnaire "Health and social status of families of persons with disabilities (cerebral palsy) 2015 (19).
2. International Physical Activity Questionnaire (IPAQ) 2002 (20).
3. Ferrans and Powers Quality of Life Index, General Version III, 1984 (21).

The questionnaire used in this research contains 9 units (General data on disabled persons, general information on the health status of disabled persons, the family status of disabled persons, information on daily activities at work, activities in transport, housekeeping, housekeeping chores and care for family, recreation, sports, and physical activities at leisure time, time spent at sitting position, and quality of life index).

Statistical analysis

The database was compiled in Microsoft Office Excel 2013 and registered in the course of the research.

After checking the integrity of the data, a statistical analysis was performed in IBM SPSS Statistics v. 20.0 for Windows. The data are presented in the form of tables and charts, using classical descriptive statistics methods, depending on the nature of the data and the measurement scale.

To describe the samples, depending on the nature of the data, we used adequate methods of classical descriptive statistics:

- Arithmetic mean (A.M.),
- Standard deviation (S.D.),
- Median (Med.),
- Interquartile range (2.5. perc. and 75. perc.),
- Absolute frequencies (N) and
- Relative incidence (%).

Testing normality of continuous numerical variables distribution was performed by histogram inspection, quantile diagrams, and formal testing using the Kolmogorov–Smirnov test. The analysis of categorical variables was done using Pearson's Chi-square test or Fisher's exact probability test. If the distribution of continuous variables is symmetric, the arithmetic mean and standard deviation will be used to show the mean and scatter measure, and parametric tests will be used to compare these variables (ANOVA test Dunnett's test).

If the distribution of continuous variables is asymmetric, median and interquartile ranges will be used to show the mean values and the scatterplot range, and non-parametric tests (ANOVA-Bonferroni test) to compare them. The results are presented in contingency tables (numbers with three decimals). The significance level is $p < 0.05$

RESULTS

The research included 25 respondents who, according to the inclusion criteria, took the test. Of the total number of respondents included in this survey, 12 (48%) were male and 13 (52%) were female. By applying the Chi-squared test, no statistically significant difference in the gender structure of the respondents was found, $\chi^2 = 0.040$; $p = 0.841$ (Chart 1).

The average age of the respondents, covered by this study, was 40.24 ± 12.26 years. Using the ANOVA test, no statistically significant difference was found in the average age of the male (42.75 ± 13.42) and

female (37.92 ± 11.11) respondents, $F = 0.965$; $p = 0.336$ (Table 1).

All respondents included in this survey were employed. There was no statistically significant difference ($p = 0.317$) concerning professional qualifications. Out of the total number of respondents, 60% were with secondary education and 40% with a university degree. There was also no statistically significant difference in education concerning the gender structure of the respondents ($p = 0.596$). About 58.3% of the male and 61.5% of the female respondents had a secondary school diploma. With a university degree, 41.7% were male and 38.5% female (Table 2).

In the study group, after a descriptive analysis of the respondents' occupation, it was found that the majority of the respondents performed work of a physiotherapy technician ($n = 8$), four respondents were craftsmen, and four teachers educators. There were three merchants, two telephone operators, and other respondents who performed the job of the social worker, librarian, defectologist, and lawyer (Chart 2).

By statistical analysis of length of service, no statistically significant difference was found, $\chi^2 = 3.560$; $p = 0.614$. Six respondents had more than 20 years of service, five had 1-3 years of service and five had 3-5 years of service, four had 5-10 years, and four 10-15 years of service. Only one respondent had 15-20 years of work experience (Chart 3).

The majority of respondents in the study group use assistance of another person in their moving ($n = 16$), which is statistically significantly higher than assistance with the use of a stick ($n = 3$) and independent moving ($n = 6$), $\chi^2 = 11.120$; $p = 0.004$ (Table 3).

No statistically significant difference was found in the frequency of aids used by the respondents during their moving. Nothing use nine respondents, and 16, $\chi^2 = 1.960$ use glasses; $p = 0.162$ (Table 4).

All respondents covered by this study had damage to both eyes. The largest number of subjects ($n = 17$) had a 100% damage rate, while two respondents had 60% and 80% damage rate, respectively. One respondent had 70%, one 90%, one 95%, and one 97%. Using the Chi-squared test, a statistically significant difference in the frequency of the subjects

was found with the degree of damage, $\chi^2 = 59.280$; $p = 0.001$ (Chart 4).

In the study group, 15 respondents are married and at least one child. There were three respondents without children, while there were seven not married. Significantly more frequent were respondents who had a family with a child, $\chi^2 = 8,000$; $p = 0.005$ (Chart 5).

All respondents covered by this survey are full-time employees. Out of the total number of respondents

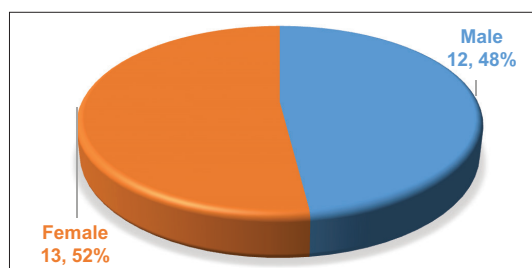


CHART 1. Gender structure of respondents.(male 12.48% female 13.52%)

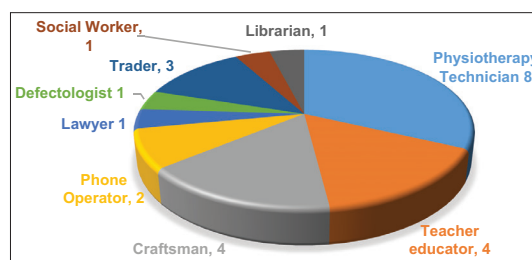


CHART 2. Respondents' professions (Social Worker (1)– Librarian (1) – Physiotherapy Technician (8) –Defectologist (1)– Lawyer (1)- Phone Operator (2) – Craftsman (4) – Teacher-educator (4)-Trader (3)

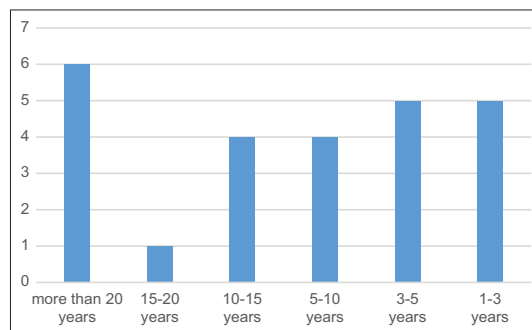


CHART 3. Length of Service. (years - more than 20 years)

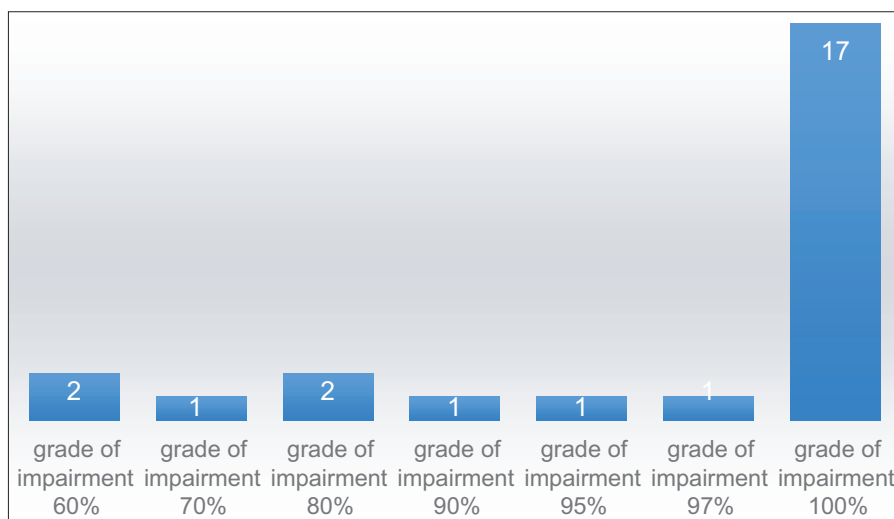


CHART 4. Grade of sight damage. (grade of impairment)

TABLE 1. Respondents' structure by age

	n	X	SD	SEM	Minimum	Maximum
Male	12	42.75	13.42	3.87	21.00	64.00
Female	13	37.92	11.11	3.08	24.00	61.00
Total	25	40.24	12.26	2.45	21.00	64.00

F=0.965 p=0.336

TABLE 2. Educational profile of respondents

		Gender		Total
		Male	Female	
Secondary education	n	7	8	15
	%	58.3	61.5	60.0
Two years of post-secondary and university education	n	5	5	10
	%	41.7	38.5	40.0

$\chi^2=0.026; p=0.596$ $\chi^2=1.000; p=0.317$

TABLE 3. Assistance at moving

	n	%	Valid %	Cumulative %
Help of another person	16	64.0	64.0	64.0
Use of white stock	3	12.0	12.0	76.0
Moving without help	6	24.0	24.0	100.0
Total	25	100.0	100.0	

$\chi^2=11.120; p=0.004$

included in this survey, Braille is used by ten respondents, while 15 are not using this letterform. There was a statistically significant difference in the use of Braille, with $\chi^2 = 10.667; p = 0.001$. Of the

total number of respondents using Braille (n = 10), eight were university graduates and two have secondary education (Table 5).

Of the total number of respondents, 18 answered that they had sound signaling devices at work, which were statistically significant higher than the respondents who said that they did not have sound signaling (n = 7), $\chi^2 = 4.840; p = 0.028$ (Chart 6).

The largest number of respondents did not have a strenuous physical activity during the week (n = 20), and a moderate activity did not have seven respondents during the week. A strenuous physical activity

TABLE 4. Supportive aids

	n	%
Nothing	9	36.0
Glasses	16	64.0
Total	25	100.0

$\chi^2=1.960$; $p=0.162$

TABLE 5. Frequency of Braille letters use

		Braille letters		Total
		Ne	Da	
Secondary education	n	13	2	15
	%	86.7	20.0	60.0
Two years of post-secondary and university education	n	2	8	10
	%	13.3	80.0	40.0

$\chi^2=10.667$; $p=0.001$

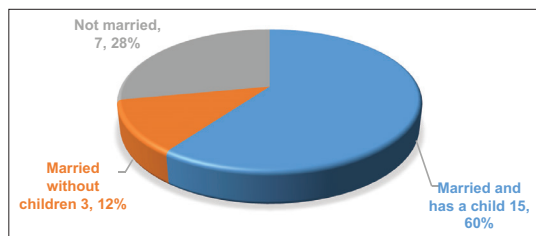


CHART 5. (Married – Not-married – Married without children – Married and has a child

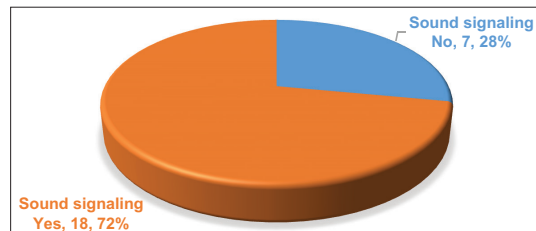


CHART 6. Existence of devices for sound signaling at workplace. (sound signaling yes/no)

exercises two subjects twice a week. Of the total number of respondents, who perform a moderate physical activity per week, the largest number of subjects (n = 11) perform these activities 5 days per week and then 7 days per week (n = 3). Respondents generally perform moderate physical activities, statistically significant more frequent than a strenuous physical activity, $p < 0.05$ (Chart 7).

Out of the total number of respondents included in this survey, 16 answered that they have no difficulties at work, at seven respondents answered that the paperwork was the main difficulty, and two respondents answered that they lacked support at work (Chart 8).

Only one respondent answered that there was an acoustic signal in the carriage used, while 24 responded said that no acoustic signaling exists in the carriage they used (Chart 9).

Of the total number of respondents in the study group, 36% replied that they had no difficulty in transport, the other 64% said they had difficulties, 36% had a lack of acoustic signaling, and 28% had a lack of understanding their community (Chart 10).

The majority of respondents (n = 18) do not perform strenuous physical activity at home, housekeeping, and caring for families. Moderate activities outside the home are performed by 20 subjects in the study group, usually 2 days a week (n = 6) and all the 7 days a week (n = 5). Moderate activities at home were performed by 22 subjects in the study group, most often 7 days a week (n = 14) (Chart 11).

Of the total number of respondents in the study group, 56% said they had no difficulties encountered during home activities, the other 44% said they had difficulties, with 16% of respondents having visual difficulties, and 28% having difficulties in the kitchen (Chart 12).

During the past 7 days, within their free period, 12 respondents walked continuously for at least 10 minutes in 7 days, four respondents walked for 2 days and 4 days, respectively, and three respondents – 3 days. There were no respondents who did not walk in 1 day during their free time (Chart 13).

Of the total number of respondents included in this research, 18 had no strenuous physical activity during their free time during a week, and four had only 1 day of strenuous physical activity during a week. Nine respondents did not have moderate physical activity during free time. Four respondents have a moderate activity 1 day during a week and four respondents have moderate activities 4 days a week, while five respondents have moderate physical activities during the free time all 7 days a week (Chart 14).

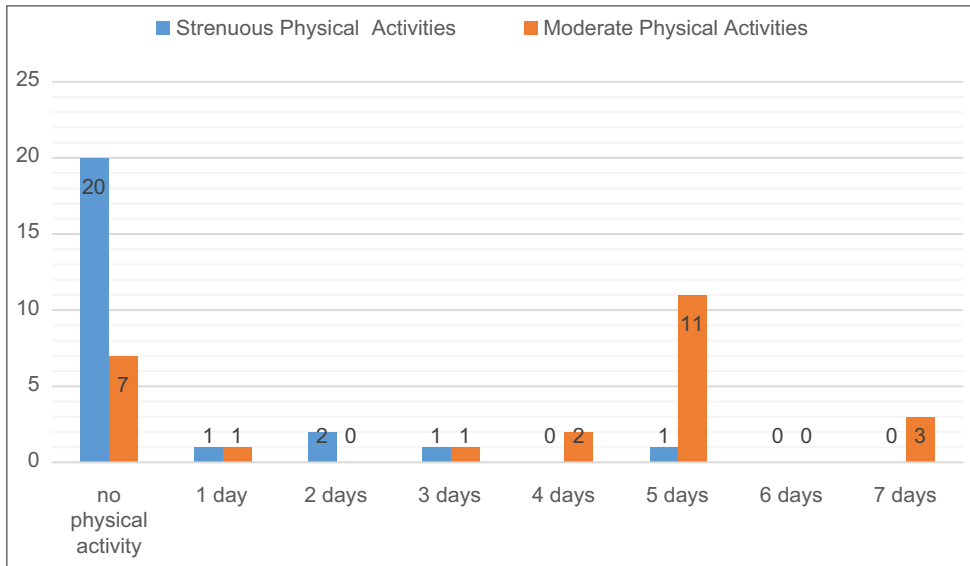


CHART 7. Frequency of physical activities in a week.(Strenuous Physical Activities – Moderate Physical Activities)

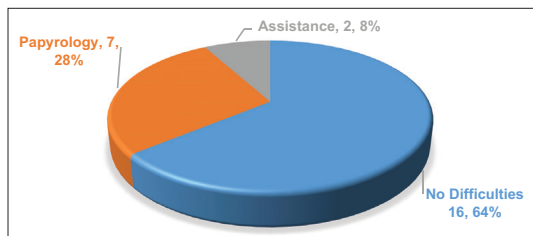


CHART 8. Most frequent difficulties at workplace. (Papyrology – Assistance – No difficulties)

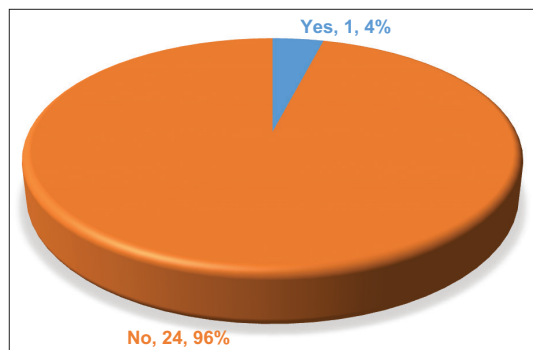


CHART 9. Sound Signaling in Transport Vehicles.(yes/no)

Of the total number of respondents in the study group, 68% replied they had no difficulty in recreation, sports, and physical activity in their free time, while the other 32% said they had such difficulties,

with 20% being visual, and 12% poor sound signaling (Chart 15).

The largest number of respondents spends 1-2 hours in sitting position during a working day, and during the weekend the largest number of respondents spends from 3 to 6 hours in sitting position (Chart 16).

DISCUSSION

This research included 25 respondents who, according to the criteria for being included, took the test. Of the total number of respondents included in this survey, 12 (48%) were male and 13 (52%) were female. By applying the Chi-squared test, no statistically significant difference in the gender structure of the subjects was found, $\chi^2 = 0.040$; $p = 0.841$.

Authors Koštić et al., in their work “Statistics of employed persons with disabilities and comparison with statistics in the world,” conclude that there are more employed men than women with disabilities, which do not correlate with the results of our research (22). The average age of the respondents covered by this study was 40.24 ± 12.26 years. Using the ANOVA test, no statistically significant difference was found in the average age of male (42.75 ± 13.42) and female (37.92 ± 11.11) subjects, $F = 0.965$; $p = 0.336$. The larger number of

respondents of 26.0% is between 31 and 40 years of age, 24.0% of respondents are between 21 and 30 years of age, and 24.0% of respondents are between 41 and 50 years old. About 16.0% of respondents are between 51 and 60 years of age and the smallest number of respondents of 8.0% is between 61 and 70 years old. A study conducted by Koštić et al. stated that the highest employment rate is for people with disabilities in the 20-29 years. In the age group of 25-29 years of age, 22.48% of the total number of employed persons with disabilities was employed, from 20 to 24 years 21.22%, and persons with disabilities between 30 and 34 years 17.09%, which does not correlate the results of our study (22).

All respondents included in this survey were employed. There was no statistically significant difference ($p = 0.317$) concerning professional qualifications. Out of the total number of respondents, 60% were with secondary education and 40% with a university degree. There was also no statistically significant difference in education for the gender structure of respondents ($p = 0.596$). About 58.3%

of the male and 61.5% of the female respondents had a secondary school diploma. With a university degree, 41.7% were male and 38.5% female.

In Bosnia and Herzegovina, there is not much data on the employment of persons with disabilities by the type of disability. In 2014, the Union of Organizations for Support of People with Intellectual Disabilities of the Federation of Bosnia and Herzegovina and the Association of Defectologists of the Canton of Sarajevo made the first major study on the quality of life of persons with disabilities in Bosnia and Herzegovina. The survey included 320 individuals with different sorts of disabilities as persons with intellectual difficulties (light and moderate intellectual difficulties), blind and visually impaired persons, deaf and hearing-impaired persons, persons with motoric disorders, and persons with combined disturbances from both entities in BIH. The results of this study indicate that the highest percentage of employment is for hearing impaired people (48.4%). This is followed by the visually impaired, of whom 32.3% are employed. Then comes the person with intellectual disabilities, of whom 11.1% are employed. The last place by employment rate is the persons with physical disabilities (5%). No person with combined disabilities is employed (23).

The research conducted by Barišić showed that the majority of respondents completed a 3-year high school (31.4%), a 4-year high school had 24.0% of the respondents with visual impairment, and only 18.2% completed primary school, while no education had 15.7% of respondents. Regarding higher 2-years post-secondary and higher education, only 2.5% of the respondents have completed higher

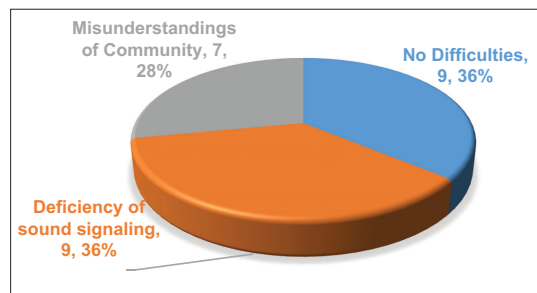


CHART 10. Most frequent difficulties in transport vehicles. (Misunderstandings of Community – No Difficulties – Deficiency of sound signaling)

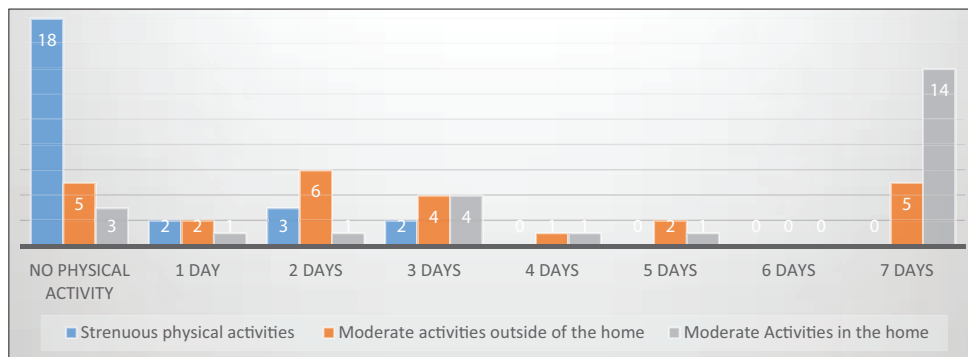


CHART 11. Frequency of physical activities in a week. (Strenuous physical activities – Moderate activities outside of the home – Moderate Activities in the home)

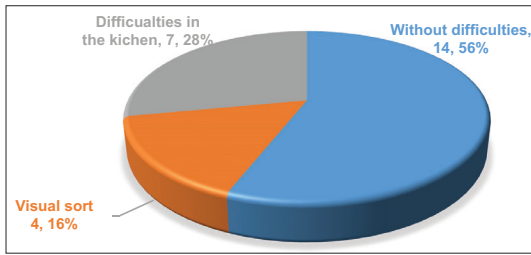


CHART 12. Most frequent difficulties in daily activities in a household. (Difficulties in the kitchen – Without difficulties – Visual sort)

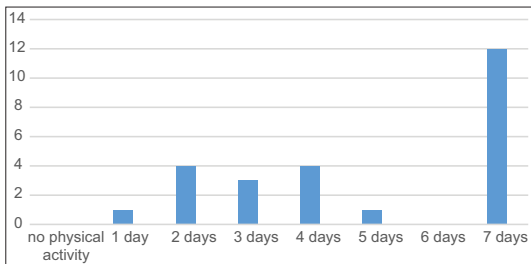


CHART 13. Frequency of walking without interruption of at least 10 minutes in free time. (less than a day - one day - days)

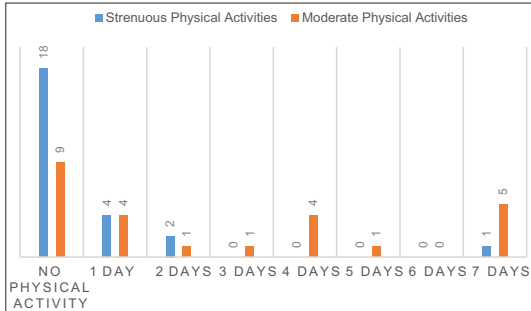


CHART 14. Frequency of physical activities in free time in a week. (Strenuous Physical Activities Moderate Physical Activities)

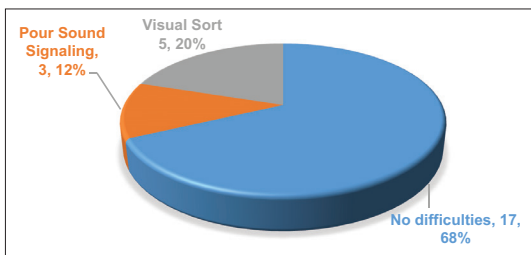


CHART 15. Most frequent difficulties at leisure, sports, and physical activities in free time. (Pour Sound Signaling - Visual Sort – No difficulties)

education, while 5.8% have completed 2-years post-secondary education or higher education (9).

A study on the “Position of vulnerable groups on the Serbian labor market” in 2010, authors Krstić et al. found that the activity rate of people with disabilities is extremely low (31.1%), significantly lower compared to the basic population (64.2%), since most are inactive. The survey shows that just over a quarter of the working-age population (15-64 years) is disabled (24).

Considering the respondents’ occupations, it was found that the largest number of respondents performed the work of a physiotherapy technician (n = 8), four respondents were artisans, and four teacher-educators. There were three merchants, two telephone operators, and individually respondents performed the work of a social worker, librarian, defectologist, lawyer, and merchant of each.

The authors of Krstić et al., 2010, based on their analysis, have found that, according to the sectors of activity, the most disabled persons are employed in the services sector (42.5%), followed by agriculture (31.7%). Persons with disabilities were more frequent in occasional, seasonal jobs, compared to the total population, and also were present in informal economic activities compared to the total population (47.3% vs. 34.9%, respectively), which do not match with our research results (24).

Referring to the length of service, no statistically significant difference was found, $\chi^2 = 3.560$; $p = 0.614$. Six respondents had more than 20 years of service, five had 1-3 years of service, and five had 3-5 years of service, four had 5-10 years of service, and four 10-15 years of service. Only one respondent had 15-20 years of work experience, Selimović et al. reported in their study

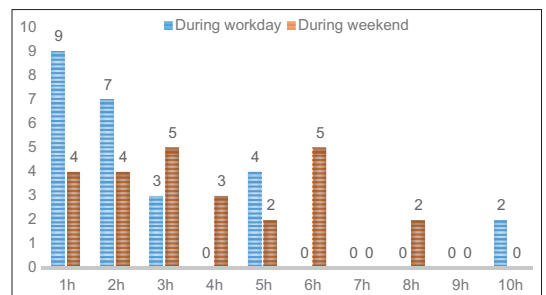


CHART 16. Time spent in a sedentary position. (During a workday - During the weekend)

that 31% of persons with disabilities are without work experience in Slovenia, while in Croatia was 33%. In Slovenia, the majority of people with disabilities were employed and gained work experience of 1-3 years (67%), while for the same criterion in Croatia a significantly lower percentage was 27%. The length of service of 3-5 years in Slovenia was in 8% of persons with disabilities and Croatia was in 20%. There are no people in Slovenia having 5-10 and 10-15 years of work, while in Croatia 13% of people have 5-10 years of service, and 7% of people have 10-15 years of work (25).

The majority of respondents in the study group use assistance of another person in their moving ($n = 16$), which is statistically significant higher than help with the use of a stick ($n = 3$) and independent moving ($n = 6$), $\chi^2 = 11.120$; $p = 0.004$.

No statistically significant difference was found in the frequency of means which use respondents during moving. Nine subjects use nothing, and 16, $\chi^2 = 1.960$ use glasses; $p = 0.162$. The research conducted on the topic "Connection between a guide assistance techniques and the independent moving of visually impaired people" on a sample of 27 visually impaired people found that visually impaired persons used by the techniques of guide assistance in their daily moving when they want to reach a certain goal more safely and quickly, or when ambient conditions are stacked to move independently with a white stick. These techniques include several strict procedures that ensure that the moving of a blind person with a person, who sees, as the assistance, is safe and effective not only for the people moving but also for other people in the environment (26).

The study conducted by Kamelska et al., "Quality of Life Assessment of Persons with Visual Impairments at Different Levels of Physical Activity," consisted of 53 respondents divided into three groups: Visually impaired, sedentary, and visually impaired cyclists. None of the study groups used the assistance of a guide dog when moving, which correlates with the results of our study. About 77% of visually impaired people move independently and 11% need the help of another person. A group of visually impaired athletes, 71% move on their own while 11% need the help of a guide, and 5% use the white stick. It has been observed that the longest time in performing household chores spend blind people (27).

All subjects covered by this study had damage to both eyes. The largest number of subjects ($n = 17$) had a 100% damage rate, while two subjects had 60% and 80% damage rates, respectively. One respondent had 70%, 90%, 95%, and 97% damage rate each. Using the Chi-squared test was found a statistically significant difference in the frequency of the subjects with the degree of damage, $\chi^2 = 59.280$; $p = 0.001$.

In the study group, 15 respondents are married and have at least one child. There were three respondents married but without children, while there were seven with not married. Significantly more frequent were respondents married and with a child, $\chi^2 = 8.000$; $p = 0.005$. All respondents covered by this survey are full-time employees. Of the total number of respondents included in this survey, Braille uses ten respondents, while 15 do not use the letters. There was a statistically significant difference in the use of Braille, with $\chi^2 = 10.667$; $p = 0.001$. Of the total number of respondents using Braille ($n = 10$), eight were university graduates and two with secondary education.

Of the total number of respondents, 18 answered that they had sound signaling at work, which were statistically significantly higher than the respondents who said that they did not have sound signaling ($n = 7$), $\chi^2 = 4.840$; $p = 0.028$.

The largest number of respondents never had a strenuous physical activity during 1 week ($n = 20$), and a moderate activity did not have seven subjects for a week. Exercise strenuous physical activities two subjects and twice a week. Of the total number of subjects who perform a moderate physical activity per week, the largest number of subjects ($n = 11$) perform these activities 5 days per week, then 7 days per week ($n = 3$). Respondents generally perform a moderate physical activity, statistically significantly more frequent than a strenuous physical activity, $p < 0.05$. From the total number of respondents included in this study, 16 answered that they have no difficulties at work, in seven subjects paperwork was the main difficulty and two respondents that they lack support at work.

Only one respondent answered that there was an acoustic signal in the carriage used, while 24 of them responded that acoustic signaling did not exist in the carriage they were using.

Of the total number of respondents in the study group, 36% said they had no difficulty in transport, the other 64% said they had difficulties, and 36% had a lack of acoustic signaling, and 28% did not understand the community.

The majority of respondents (n = 18) did not perform a strenuous physical activity in the home, house-keeping, and caring for families. Moderate activities outside the home are performed by 20 subjects in the study group, usually 2 days a week (n = 6) and all 7 days a week (n = 5). Moderate in-home activities were performed by 22 subjects in the study group, most often 7 days a week (n = 14). Of the total number of respondents in the study group, 56% said they had no difficulties encountered during their home activities, the other 44% said they had difficulties, with 16% having visual difficulties, and 28% having difficulties in the kitchen.

During the past 7 days, within the free period, 12 subjects walked continuously for at least 10 minutes for 7 days, four subjects walked for 2 days and 4 days, and three subjects for 3 days. There were no respondents who did not walk 1 day during their free time.

Of the total number of respondents included in this study, 18 had no strenuous physical activities during their free time in a week, and four had only 1 day of strenuous physical activity during a week. Moderate physical activity during leisure time did not have nine subjects. Four subjects had a moderate activity in 1 day during a week and four subjects have moderate activities 4 days a week, while five subjects had moderate physical activities in leisure time all 7 days a week. Of the total number of respondents in the study group, 68% said they had no difficulty in recreation, sports, and physical activities, while the other 32% said they had difficulty, of it, 20% is visual, and 12% poor sound signaling.

During a working day, the largest number of respondents spends 1-2 hours in the sitting position and weekends the largest number of respondents spends from 3 to 6 hours in the sitting position. Kuduzović et al. presented the process of retraining through the case study at brown coal mine workers Banovići dd Banovići. After a mining accident that occurred in 2011, the worker S.K. at 45 years of age was diagnosed with complete loss of vision, i.e., blindness. His newly established condition did not allow a

return to the old way of life, both in the private and in the professional segment. At that point, the most realistic solution was an early retirement, but the doctor's view was that retirement was not the happiest solution. Seven months later, the possibility of retraining workers was discussed in a conversation between representatives of the JU Center for the Blind and Visually Impaired Children and Youth from Sarajevo and the Faculty of Education and Rehabilitation from Tuzla. From the very beginning, mine management representatives thought that they could and would like to take the overall costs of the retraining as well as provide for S.K. a job in the company. After agreeing to retrain, the representatives of the Brown Coal Mine, Banovići management, visited the JU Centre for the Blind and Visually Impaired Children and Youth in Sarajevo, where the cooperation of the two institutions officially began in the interests of the injured worker. The worker S.K. was involved in a training program for the job of a telephonist. During the defectological rehabilitation was performed and made an expert assessment of the candidate's condition and, as part of the obtained results, he was included in training programs for Braille, also computer use, tifo-technical aids, orientation, and moving with a white stick and a guide of good eyesight. During the rehabilitation program, it was noticed that S.K. was hearing impaired. The hearing impairment was on the left side, which was caused by explosions. This information was very important in working in the area of orientation and moving as S.K. with his hearing loss he was in real danger when moving independently. In a familiar environment, he could be oriented and move much better and more safely than in an unfamiliar and new area where his hearing impairment further complicated the situation. After a year of intensive rehabilitation, the retraining process was completed. He acquired the level of knowledge necessary to work independently at a telephone exchange, as well as was able to record important notes in Braille, and able to come to his work and find his workplace on his own (28). This case study can be correlated with our research as it indicates the importance of such training for a particular profession naturally following their capabilities, therefore contributing to a better quality of life for that person with a particular disability.

There is another life story of a 26-year-old M.P. who has been blind since he was five. He is a teacher of piano at the Elementary School of Music in Virovitica. Despite the blindness, he points out that his parents informed him that they expected to form his results to be proud of. He graduated from the Academy of Music in Zagreb. The young man points out that every person, especially one with a disability, must create a mind's eye of what he or she wants to do in life. He believes that everyone is responsible for the quality of own life, own happiness and position in society. He points out that he is happy that he has achieved his present status by studying, practicing the piano and socializing with people without disabilities, as well as with the blind. He emphasizes that it is very important to explore the ultimate limits of one's capabilities (29). This life story is about the importance of education and employment for people with disabilities. The story correlates with our research because it emphasizes the importance of employment of people with disabilities. After all, the fact improves the quality of life and increases life satisfaction, regardless of type, and degree of disability.

CONCLUSION

Based on the research performed, can be concluded: Daily activities of employed persons with visual impairment have a positive impact on their quality of life. The persons with impairments go out and work in their community every day. Braille is used to a greater extent by people with higher education than with secondary education. The most common difficulties they encounter at work are related to paperwork and lack of support, while most persons with disabilities have no difficulties. Transport means used by disabled people who did not have audible signaling. The persons with visual impairments walk at least 10 minutes in a week without pause and use transport motor vehicles. The most frequent difficulties faced at home by people with disabilities are kitchen difficulties and visual difficulties, while 56% of the respondents stated that they have no problems. The persons with visual impairment have in their free time moderate physical activities. More than half of the respondents have no difficulties in sports and recreation, and the rest

of the respondents have difficulties of a visual nature due to lack of sound signaling. The time spent in sitting position over the weekend was 3-4 hours longer than sitting time during other days in a week. All subjects had visual impairment in both eyes. Most of the subjects had a 100% impaired vision. There are different occupations of people with disabilities that improve their quality of life. The majority of respondents perform the work of a physiotherapy technician. Four respondents were craftsmen and teacher educators, respectively. There were three retailers, two telephone operators, and the rest of the respondents performed the work of a social worker, librarian, defectologist, and lawyer.

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