INTRODUCTION

According to section I, article 3 of law 3.298 (BRAZIL, 1999) disability is conceptualized as "any loss or abnormality of a psychological, physiological or anatomical structure or function that generates incapacity for the performance of activity, within the standard considered normal for the patient, human being.”

The major disability world landmark was the Convention on the Rights of Persons with Disabilities, which was promulgated by Decree Law No. 6,949 (BRAZIL, 2009), which provides in Article 1: “The purpose of this Convention is to promote, protect and ensure the full and equitable exercise of all human rights and fundamental freedoms by all persons with disabilities and promote respect for their inherent dignity.”

Visual impairment for Amiralian (1997) can be divided into two groups: blindness (total loss of vision) or low vision. Thus blindness is the total loss of vision that can lead to impairments even in the absence of light perception. Blindness can be congenital, come with birth, or acquired, occurring throughout life and arising from an event or health problem. For the education professional, knowing the origin of blindness helps to student literacy, as any remnants of memory can assist in this education process. This information confirms that for Decree No. 6,949 (BRAZIL, 2009), low vision can be understood as any loss of vision that interferes with or limits a person’s visual performance.

Faced with limitations related to disability, lack of accessibility, prejudice and often social exclusion, the quality of life of people with visual impairment is compromised. To change this scenario, it is important that strategies are thought out and the practice of sports and exercise has been one of them.

The practice of physical exercises for Teixeira (2008) brings several benefits. Among others, we can highlight better cardiorespiratory conditioning, reduction of possible cardiovascular diseases, increase in lean mass, weight loss, motor coordination work, dynamic and static balance, making the individual feel better also in their daily activities. In addition, it contributes to the socialization among its practitioners and the exchange of experience between them.

In a research by Rocha and Fernandes (2008), with visually impaired individuals who are sedentary and visually impaired individuals who are sport practitioners, it was considered that practitioners stood out for having a better quality of life, because sport was a promising factor for this improvement.

For Amaral, Pomatti and Fortes (2007) there is a strong indication that sport is one of the factors that contribute to the improvement of living conditions of visually impaired people, because, besides providing health and well-being, the activity makes the more independent person and decreases the functional decline of their aging process.

Goalball, according to studies by Amorim et al. (2010), is a sport aimed at the visually impaired, created in Europe to rehabilitate soldiers who lost their sight in World War II. Unlike other sports practices it was created and not adapted. It was first presented at the Toronto Paralympic Games in 1976. Two years later it had its first world championship in Austria. As it is a sport for people with visual impairment, athletes use hearing perception to guide them. Therefore, during the match, the fans should be silent. The ball, with a rattle inside, must be released and slid down the court.

The authors state that these athletes are functionally classified as a sport requirement by the level of their visual ability. Classes B1, B2 and B3 are possible, where the letter B comes from English, blind and the lower the number, the greater the visual impairment. In class B1, individuals are blind (full or light-aware), but would not recognize a one-handed shape; B2 only see big and B3 can define an image. It is believed that because it is a very motivating, collective sport that demands a training routine, its practice can positively influence the athletes’ perception of quality of life.

From studies by authors such as Amiralian (1997), Teixeira (2008), Amaral, Pomatti and Fortes (2007), Amorim and collaborators (2010), the regular practice of physical activity, exercise and sports are associated with several benefits, including physical, emotional and social factors, which directly impact the perception of quality of life. The aim of the present study was to investigate the perception of quality of life of goalball athletes. Thus, studying the perception of quality of life of visually impaired people who play sports is extremely valid, since once it is identified that the study participants have a good perception of their quality of life, this practice can be even more widespread and stimulated for the population with these disabilities. It is known that even today, many people with visual impairment are locked in their homes, due to lack of accessibility, suffering prejudice and often opportunities and unknowns about the benefits of sports. Thus, it is believed that this work may, in a way, contribute to the change of this scenario.

STUDY METHODOLOGY

Study Design

An observational cross-sectional study was conducted with the participation of 16 goalball athletes. All study participants were athletes from URECE, an institution in which the Postgraduate Program in Rehabilitation Sciences - PPGCR/UNISUAM has a technical-scientific partnership.

Athletes with the following characteristics were included: 18 years of age or older; minimum goalball practice time of six months; men and women and have a functional classification equal to B1 (blind), B2 or B3 (low vision).

To participate in the study all signed the Informed Consent - IC, and the project was approved by the Research Ethics
Quality of Life

To assess the Quality of Life athletes completed the WHOQOL-BREF questionnaire, in its translated version and validated to Portuguese by Fleck et al. (2000). This questionnaire was developed by the World Health Organization (WHO / WHO) and is widely used worldwide. It has twenty-six questions, which evaluate four domains of quality of life: physical, psychological, social relations and environment, and two questions for general evaluation of quality of life. The answers are organized in Likert scale, with scores ranging from 1 to 5 points. In each domain, maximum scores of twenty points are generated, representing greater satisfaction with the quality of life.

The following facets are evaluated in WHOQOL-BREF domains (WHOQOL GROUP, 1997):

- **Domain 1 - Physical Domain**
  - Pain and discomfort
  - Energy and fatigue
  - Sleep and rest
  - Mobility
  - Activities of daily living
  - Dependence on medication or treatments
  - Ability to work

- **Domain 2 - Psychological Domain**
  - Positive feelings
  - Think, learn, memory and concentration
  - Self-esteem
  - Body image and appearance
  - Spirituality, religion, personal beliefs

- **Domain 3 - Social Relations**
  - Personal relationships
  - Social support
  - Sexual activity

- **Domain 4 - Environment**
  - Physical security and protection
  - Home environment
  - Financial resources
  - Health and social care: availability and quality
  - Opportunities to acquire new information and skills
  - Participation in, and opportunities for work, leisure
  - Physical environment: pollution, noise, traffic, climate

**Statistical Procedures**

Data were tabulated in an Excel spreadsheet (Microsoft Office 2016) and subsequently analyzed using SPSS 13.0 software, according to the recommendations proposed by WHOQOL-GROUP (1997):

The results were presented in tables, calculating measures of central tendency (mean and median) and dispersion (standard deviation and minimum and maximum values).

**RESULTS ANALYSIS**

Table 1 - Scores in the four domains - physical, psychological, social relations and environment - and general quality of life issues of the goalball players who participated in the study.

All study participants completed the questionnaire as requested. Of the 16 participants, 7 were women. The domains assessed by WHOQOL-BREF are shown in Table 1. The group had a mean age of 30 (± 5.5) years (minimum = 23; maximum = 40), mean total body mass of 76 (± 18.6), kg (minimum = 49; maximum = 120) and average height equal to 167 (± 12.1) cm (minimum = 149; maximum = 187).

It was observed that the social relations domain had the highest level of satisfaction, since the average found was 16.7 and the highest observed value was the maximum value 20.0.

In contrast, the environment domain had the lowest level of satisfaction, as its average score was 12.8 and none of the respondents had the highest score.

**DISCUSSION OF RESULTS**

The aim of the present study was to investigate the quality of life of visually impaired athletes, goalball players. The main findings were that athletes showed greater satisfaction in social relations, followed by physical and psychological.

Rebouças and collaborators (2016) evaluated the quality of life of 20 visually impaired people in Ceará, Brazil. To this end, the authors applied the WHOQOL-100 (2000) questionnaire, that is, a complete version of the questionnaire used in the present study. The main results found were that the psychological domains, level of independence and social relations were the best evaluated. On the other hand, the environment domain was the worst evaluated, being the only one not to reach 50% (48.04%). The greatest dissatisfaction was with pollution, noise, traffic and climate, which is in line with what we observed in the present study. It was noticed in a population of blind people who are athletes who also have better satisfaction in this domain.

In the present study, as observed, the environmental domain was the one in which the athletes also presented lower satisfaction. For Bittencourt and Hoehne (2008) factors such as lack of accessibility, unadjusted means of transport and any factor that may impair mobility and well-being of people with visual impairment negatively impact on quality of life. Lack of accessibility is the main barrier faced by people living with some kind of disability. Accessibility for the visually impaired in banks, transportation and commerce in general is still very poor.

Another factor that also generates dissatisfaction is the lack of support for literacy, with few options for learning to read Braille. Another important aspect highlighted by Rebouças and collaborators (2016) is the socioeconomic level, which directly influences this accessibility issue in relation to structural and cultural aspects. The inclusion of this important portion of the population is a growing challenge for architects, engineers and those responsible for defining and implementing public policies that allow those with reduced mobility to move with autonomy and independence. The domain social relations was well evaluated by the participants of this study, who demonstrate that friends and family offer support and assistance. The practice of sports, for many people, is a possibility of social inclusion, because they leave the isolation, the vulnerability of their family and social surroundings. Martine, Bert and Borges (2016) complement by saying that social relations also contribute to psychological and emotional factors, because the more inserted in the social scope the individual is less likely to develop psychological diseases such as anxiety and depression. Physical activities make up a large portion of this positive assessment regarding socialization and psychological factor.

Machado et al. (2014) analyzed twelve non-athlete visually impaired individuals. Of these, four were female, with a mean age of 52.5 ± 7.6 years. The WHOQOL-BREF questionnaire was used as a tool for investigating quality of
decrease of depression and anxiety in the practitioner’s life.

Both in the study by Machado et al. (2014) and in the present study, the social relationship domain between goalball athletes, the psychological aspect was in the third position as the best evaluated item. The physical aspect aims to evaluate pain, medication use, sleep and ability to perform daily activities. For athletes, the physicalist occupied the second best evaluated position, and the aspects with visual impairment, not necessarily athletes, the physical aspect occupied only the fourth position in the quality of life index. Studies by Santos and Baestos (2007) show high levels of overweight and obesity and those by Gregoulo and R. Júnior (2009) who say that there is an exacerbated physical inactivity among people with disabilities, negatively accentuating the self-assessment of the physical aspect.

Based on the data presented, there is a strong correlation between physical exercise and social relationships and, consequently, with the quality of life of people with disabilities, in general. The practice of physical activity improves the life of the individual, bringing to this better physical performance and capacity to develop independently in their daily lives, resulting in the decreased depression and anxiety in the practitioner’s life.

In the study by Marinho and Vieira (2015), the WHOQOL-BREF (1997) questionnaire was used, which evaluated eight adolescents, aged between ten and nineteen years, four of them male. The following results were found: of the five domains analyzed, the highest one was the Psychological domain, with an average of 75, while the lowest was the Social domain, with an average of 55.84. The physical domain was second with an average of 68.38, followed by the quality of life domain with an average of 65.62, and fourth was the Environment domain with an average of 58.25. The domain of Social Relations is a common feature in adolescence, since in this phase there is the tendency of formulations of tribes / groups. Teenagers identify with each other and walk together, using the same language, attending the same places, wearing the same style of clothing, forming a group of life, with their particular characteristics. This characteristic is finding, because they cannot fit within a group, because they feel different, causing some discomfort about this and even a withdrawal of older from other youngsters, due to the higher score. Greater possibility of interaction, as athletes are in a place where everyone is in the same situation and end up feeling more confident due to being in a neutral environment where everyone has the same limitations.

The environment domain was the second most affected, unlike the one analyzed and found in our studies, where the environment domain was the least affected and the social relations domain was the one with the most negative score / average in quality of life, involving adolescents. Of different nationalities. It evaluates aspects normally involved with the inclusion of the vison impaired individual in the environment in which they live in society and many of these factors depend on government investments, which makes it difficult to improve this inclusion for the visually impaired. In the study of goalball athletes, the environmental domain was last, the same difficulties were considered where the aspects of the domain analyzed do not depend solely on the visually impaired person, but on the general population and a government incentive to make these improvements.

The objective of the study by Heil and Benvenutti (2008) was to investigate the perception of the visually impaired athlete about adapted sports. The study was conducted in 2008, which involved fourteen adult athletes / athletes of different sports with visual impairment, aged between sixteen and fifty-two years of both sexes. Data were collected through a semi-structured interview through content analysis by Bardin (2010), which is structured in three phases of pre-analysis, material exploration and treatment of results. In the study in question, aspects such as improvement of self-esteem, motivation, social inclusion and adapted sport were analyzed as overcoming the difficulties imposed by disability. All aspects directly influenced the athletes’ quality of life. The sport itself, in addition to all the benefits already known worldwide and are widely disseminated and spread in various places where exercise occurs. The psychological aspect is strongly benefited in the visually impaired person, because the sport brings with it competitive aspects in which constantly motivates the visually impaired person to overcome limits, face their fears, overcome obstacles imposed by the society. It also contributes to the mental self-control of their feelings, helps in the athlete’s concentration, their daily lives, decreases the incidence of depression, physical inactivity and obesity in visual impairment. The psychological of the individual is often affected due to overprotection of family, friends and society, which often bring with them a lack of knowledge and understanding of visual impairment and, rather than seeking to improve important issues in which quality improves, individual’s life, seeks an overprotection that is often related to the perception of disability of the visually impaired person. On the physical side, there is a great influence for individuals with visual impairment, because sports practice improves aspects that are affected by visual impairment, whether congenital, hereditary or acquired due to some injury. Sport directly influences the improvement of body awareness, agility, balance, spatial perception, range of motion where it helps to overcome barriers that are imposed empirically by those. The visually impaired individual changes his or her own view of himself, since from the moment he feels safer in the aspects mentioned above, he feels able and safe to perform tasks that he was previously afraid of. The social relationships that are experienced with sports practice, according to Heil and Benvenutti (2008), not only help the visually impaired person to live with their peers, but also with society in general.

FINAL CONSIDERATIONS

Based on the data collected, analyzed and discussed, it is considered that athletes with visual impairment who practice goalball present greater satisfaction in the domain “social relations” of quality of life and, at the other extreme, greater dissatisfaction in the “environment” domain. These results show that sports practice is positive for improving the interpersonal relationship of people with visual impairment, as it allows, in a way, more people with the same disability to relate. Regarding dissatisfaction with the environment, this result reinforces that unfortunately the accessibility conditions for people with disabilities are still precarious, limiting their daily activities.

REFERENCES


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Abstract: People with visual impairment make up a group vulnerable to worse perception of Quality of Life due to limitations related to vision loss. In this scenario, actions that can promote a better quality of life for these people are needed. Among them, sports is a possibility. Objective: To investigate the quality of life of athletes with visually impaired goalball players. Study Design: A cross-sectional study was conducted with 16 goalball athletes. Quality of life was assessed using the WHOQOL-BREF (1997) questionnaire, which assessed the following domains: physical, psychological, social relations, environment, and two general questions about quality of life. The higher the score, the higher the satisfaction. Results: It was observed that the social relations domain had the highest level of satisfaction, since the average found was 16.7 and the highest observed value was the maximum value 20.0. In contrast, the environmental domain had the lowest level of satisfaction, as its average score was 12.8 and none of the respondents had the highest score. Final Considerations: It is considered that visually impaired athletes who practice goalball present greater satisfaction in the "social relations" domain of Quality of Life and, at the other extreme, greater dissatisfaction in the "environment" domain. These results show that sports practice is positive to improve the interpersonal relationship of visually impaired people, as it allows, in a way, more people with the same disability to relate. Regarding dissatisfaction with the environment, this result reinforces that unfortunately the accessibility conditions for people with disabilities are still precarious, limiting their daily activities.

Keywords: Quality of Life. Person with disabilities. Sport. Visual impairment.
Resumen: Las personas con discapacidad visual constituyen un grupo vulnerable a una peor percepción de la calidad de vida debido a las limitaciones relacionadas con la pérdida de visión. En este escenario, se necesitan acciones que puedan promover una mejor calidad de vida para estas personas. Entre ellos, el deporte es una posibilidad. Objetivo: investigar la calidad de vida de los atletas con jugadores de goalball con discapacidad visual. Diseño del estudio: se realizó un estudio transversal con 16 atletas de goalball. La calidad de vida se evaluó mediante el cuestionario WHOQOL-BREF (1997), que evaluó los siguientes dominios: físico, psicológico, relaciones sociales, medio ambiente y dos preguntas generales sobre la calidad de vida. Cuanto mayor sea el puntaje, mayor será la satisfacción. Resultados: se observó que el dominio de las relaciones sociales tuvo el mayor nivel de satisfacción, ya que el promedio encontrado fue de 16,7 y el valor más alto observado fue el valor máximo de 20,0. En contraste, el dominio ambiental tuvo el nivel más bajo de satisfacción, ya que su puntaje promedio fue de 12,8 y ninguno de los encuestados tuvo el puntaje más alto. Consideraciones finales: se considera que los atletas con discapacidad visual que practican goalball presentan una mayor satisfacción en el dominio de las "relaciones sociales" de Calidad de Vida y, en el otro extremo, una mayor insatisfacción en el dominio de "medio ambiente". Estos resultados muestran que la práctica deportiva es positiva para mejorar la relación interpersonal de las personas con discapacidad visual, ya que permite, de alguna manera, que se relacionen más personas con la misma discapacidad. En cuanto a la insatisfacción con el medio ambiente, este resultado refuerza que, lamentablemente, las condiciones de accesibilidad para las personas con discapacidad siguen siendo precarias, lo que limita sus actividades diarias.


PERCEPCIÓN DE LA CALIDAD DE VIDA DE LOS ATLETAS DISCAPACITADOS VISUALES

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