

Research Article

Exploring the Mediating Role of Self-Esteem in the Relationship Between Recreation Activities and Quality of Life Among Youth with Visual Impairment

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Abstract

The objective of this study was to explore the mediating role of self-esteem in the correlation between participation in recreational activities and quality of life among youth with visual impairments (VI). This research is particularly significant given the unique challenges faced by youth with VI, who often experience limitations in their social interactions and opportunities for engaging in recreational pursuits. Data were collected from AllNoor Institutes and schools catering, I utilized a comprehensive approach, incorporating the Two-Dimensional Self-Esteem Scale, the KIDSCREEN 27 questionnaire, and the Perceived Freedom in Free Time Scale. The findings revealed significant and positive associations among self-esteem, participation in recreational activities, and overall quality of life. Specifically, engagement in recreational activities was positively correlated with enhanced self-esteem and improved quality of life among the participants. This suggests that recreational activities not only provide enjoyment but also play a vital role in personal development and emotional well-being. Moreover, the analysis demonstrated that self-esteem emerged as a crucial factor in enhancing the quality of life for youth with VI. Importantly, self-esteem was identified as a mediating variable in the relationship between recreational activities and quality of life, indicating that the benefits of engaging in such activities can be partly attributed to their impact on self-esteem. This study emphasizes the importance of fostering recreational opportunities for youth with visual impairments, as these activities contribute significantly to their self-worth and overall life satisfaction. The results underline the need for targeted programs that encourage participation in recreational activities, ultimately helping to improve the quality of life and emotional health for this vulnerable population.

Keywords

Self-esteem, Recreation Activities, Quality of Life, Youth with Visual Impairment

1. Introduction

The World Health Organization (WHO) explains disability as a term used for activity limitation, participation limitation, and inadequacies, and is associated with the negativities be-

tween the individual and personal and environmental elements [41, 42]. Disability is the inability to fulfill the roles expected from the individual due to any disorder or problem,

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related to factors such as cultural, social, gender, and age [32]. Visual impairment is a decrease in vision level that causes various problems, such as contact lenses, glasses, etc. It is a situation where it cannot be corrected with [18, 40, 43].

Information about visual acuity and the visual field provides information about whether individuals with visual impairments can work, go to school, drive, or independently perform ordinary activities of daily living [23]. Visual impairment is classified according to visual acuity and visual field. This classification is as follows: blind, partially sighted, and visually impaired. Blind people are people who have a visual acuity of 20/200 and whose visual field is limited to only those in the center. Low-vision individuals are people whose visual acuity is between 20/70 and 20/200. These individuals can see the environment better with assistive devices (magnifiers, glasses, etc.). In addition, vision problems can be alleviated by paying attention to environmental planning, using larger fonts or adjusting the lighting [25]. The World Health Organization did not make a definitional difference between blind individuals and partially sighted individuals and defined both groups as visually impaired.

Vision problems are a condition that can affect every moment of life and can be the focus of an individual's entire life. Studies have concluded that individuals with visual impairment generally spend their free time with passive recreational activities (reading books, watching TV, listening to music [1]. Individuals with visual impairments face some difficulties when performing recreational activities. Examples of these difficulties include inadequate guidance for individuals with visual impairments, small font sizes, problems with lighting, and limitations in direction finding while participating in a sporting activity. Individuals with visual impairment may have difficulties reaching activities and places where they can perform recreational activities [30]. These problems cause the individual to lose time and may result in the individual having to overcome many obstacles before even starting the activity.

Physical and social recreational activities are important in meeting feelings such as showing the individual's abilities, self-actualization, subjective satisfaction, and being appreciated by others [5, 15]. It not only meets social and psychological needs but also positively affects the individual feeling better physically and being healthier.

Studies on the leisure activities of individuals with visual impairments were generally conducted on children and young people [24, 5]. These studies focused on participation in recreational physical activities, which have a positive effect on the mental and physical health of children and young people, reducing stress levels, quality of life, making friends, and socializing [5, 15]. It has been found that children with visual impairment participate in fewer physical activities than their peers [5]. Exhibiting negative attitudes and lack of social support in participating in sportive and recreational activities can be an insurmountable obstacle for children and

young people with visual impairment [15].

Low participation in health-enhancing physical activities significantly affects the health of the population. Physical inactivity causes an estimated 600,000 deaths per year in the European Region and leads to 5.3 million annual losses in premature death and disability. Physical inactivity increases the risk of many chronic diseases, including cardiovascular diseases, diabetes, and certain types of cancer. According to research reports conducted in England, the annual cost of physical inactivity is €17.5 billion, excluding the costs spent on obesity. According to a similar study conducted in Switzerland, the annual cost of physical inactivity per person is between 220€ and 440€. In recent years, the change in eating habits in Europe and the decrease in participation in physical activities have led to a large increase in obesity levels. While in some countries more than half of adults are overweight, in the European Union more than 14 million children are estimated to be overweight, of whom 3 million are obese. The European Union Platform on Nutrition, Physical Activity, and Health supports physical activity as one of five key areas to solve this problem [13, 19].

Recreational activities have an important place in the quality of life for adults with visual impairment [23]. According to a study conducted on individuals with visual impairments, the majority of adults engage in leisure activities; However, it has been determined that these activities are generally activities that do not require physical effort or movement, such as watching TV or reading a book [4].

Visual impairment has a significant impact on activities carried out in a community such as theatre, cinema, meeting with friends], sports, and the individual's involvement in hobbies [4]. Adults with visual impairments occasionally participate in outdoor activities, such as visiting friends or attending social events. The reason for this is that the accompaniment of family members is often required because they need support [4].

Physical activity in disabled people improves their self-esteem and contributes to their social and professional functionality [4]. Quality of life has a relationship with factors such as health, life satisfaction, sense of happiness, and physical function [9]. When it comes to disabled people, the type of disability, the relationship of the disabled person with their family, and the financial situation should be taken into consideration [22]. Low vision and blindness have a very important place among the health problems that affect the quality of life. There are many obstacles that blind people face regarding physical activity. Some of these are: lack of knowledge and necessary understanding in society, fear of the emergence of deficiency and addiction, and anxiety and fear caused by disability [1].

1.1. Quality of Life

Quality of life (QoL) can be defined as a state of personal well-being felt in different periods of life and as a meas-

ure of a person's satisfaction. It is related to the person being at peace with himself/herself, as well as being aware of his/her well-being and feeling valuable [14]. QoL includes a person's mental state, physical functions, social relationships within and outside the family, and their level of influence from the environment. It reveals to what extent this situation affects the person's functionality [14, 41]. The World Health Organization explains the concept of quality of life as "a person's perception of his own life in a cultural system according to his expectations, standards, goals and interests". What is important at this point is that the standards that are essential for achieving quality-of-life goals should not be imposed from the outside and that the person should evaluate his life entirely on his own and maintain it [16].

QoL has certain characteristics that determine individuals in society. These characteristics are the individual's competence and inadequacy. If the individual is insufficient, the meaning of 'disabled' emerges. Disabled; by determining the mental, emotional, and physical changes in the individual's body; It is the state of encountering obstacles and restrictions in many areas of life as a result of managerial or social choices and behaviors [42].

For many years, it has not been thought that sports and sporting activities, which are recommended for healthy people to demonstrate physical competence by getting rid of physical problems and various stresses and for their quality of life, can also be performed by disabled individuals, and no action has been taken regarding this [23]. Sport for all or lifelong sports aims to increase the quality of life and general public health as a sports service feature [23].

In the study by Ünal and İlhan (2020) where they examined the effects of sports on the quality of life of visually impaired individuals. They concluded that sports have positive effects on many parameters such as balance control, basic motoric features, ability to initiate communication, making friends, getting rid of the tendency to loneliness, social roles, self-expression, and perspective on school.

1.2. Self-Esteem

Self-esteem constitutes the emotional dimension of the self. Self-esteem is seeing oneself as valuable. When an individual sees himself /herself as worthless, he may experience significant psychological distress. Situations such as the individual's views on how valuable he/she is, respecting himself /herself, valuing himself /herself, adopting his characteristics and approving himself /herself constitute self-esteem [15]. Self-esteem appears as one of the most basic elements in Abraham Maslow's 'Hierarchy of Needs'. According to Maslow, people need other people to respect them as much as they need to respect themselves [6].

People with high self-esteem know their characteristics. They have a positive opinion about themselves. They set appropriate goals for themselves. They can self-criticize in a

way that positively affects their self. self-esteem varies depending on the individual's attitude towards himself/herself. If the individual is satisfied with himself/herself and sees himself/herself where he/she wishes to be seen, his/her self-esteem will be at a high level. In this case, the individual will have good faith in himself/herself and will accept himself as he is. On the other hand, if the individual is dissatisfied with his/her or herself and criticizes himself/herself in this direction, his/her self-esteem is expected to be low. It is stated that social, family, individual, physical, and moral characteristics also have an impact on the formation of self-esteem [11].

Factors such as the individual's physical characteristics and whether he or she entered adolescence late or early are decisive. Because an individual enters puberty early or late, causing some changes in his/her body. These changes play a determining role in the individual's status within his circle of friends. Individuals who develop physically are expected to be more social. Moreover, adolescents with desired body characteristics have increased self-confidence and become more enterprising. All of these shape the individual's self-confidence and respect [21].

Recreational physical activity has been shown to ameliorate the negative psychological effects of incarceration, provide a coping mechanism, increase self-esteem, and provide an opportunity to address health issues such as weight gain [15].

1.3. Purpose

The aim was to investigate the mediating role of Self-esteem on the relationship between Recreation Activities and Quality of Life of youth with visual impairment.

1.4. Hypotheses

H1: Recreation Activities has a positive effect in QoL.

H2: Recreation Activities has a positive effect in Self esteem.

H3: Self esteem has a mediating role in the relationship between Recreation Activities and QoL.

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2. Research Method

2.1. Research Model

This research aims to investigate the mediating role of Self-esteem on the relationship between Recreation Activities and Quality of Life of youth with visual impairment. The hypotheses model of this research is presented in Figure 1.

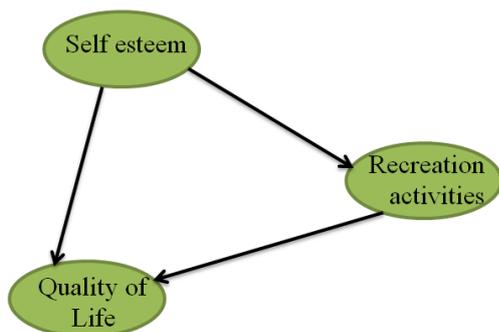


Figure 1. Research hypotheses model.

2.2. Participants

Through purposeful sample method, 50 youth were recruited. Data were collected from AllNoor Institutes and schools catering. Participants must meet the following criteria to be eligible for the present study: (a) 12–15 years of age; (b) diagnosed with low visual ability or blindness; (c) without other medical, intellectual, or physical disabilities; and (d) present during the investigation. Of the 50 youth with VI, 20 participants met the inclusion criteria. Therefore, the final analytic sample consisted of 20 participants (12–15 years; M age = 13.3, SD = 4.2), of whom 11 (55%) were males and 9 (45%) were females.

All participants in the study were given preliminary information. Information was given about the procedure and method of the scales applied in the research, the responsibility of the participant, and the required conditions. The scale rule and participant responsibilities were explained in detail to all participants. It was emphasized that the participants should participate in the study diligently and the necessary conditions were provided for this.

2.3. Data Collection Tools

Two-Dimensional Self-Esteem Scale: Self-Liking/Self-competence (Tafarodi and Swann, 2001, translated and adapted by the author). It is a 16 items, self-report scale developed by Tafarodi and Swann (2001). It measures self-esteem in two different subscales: "self-Self-Liking and Self-competence". Tafarodi and Swann (2001) reported the internal consistency of this scale was .83

for women and .82 for men in the "Self-competence" and .90 for women and men in the "Self-Liking". The retest reliability coefficient of this test was reported as .78 in the "Self-competence" and .75 in the "Self-Liking". The Arabic adaptation of the scale was created by the author. According to this adaptation, the internal consistency coefficients in the "Self-Liking" and "Self-competence" subscales were determined as .87 and .89, respectively. The two-factor structure of this scale was examined with confirmatory factor analysis. The goodness of fit indices was determined as AGFI = 0.91, GFI = 0.94, CFI = 0.97, NFI = 0.95 and RMSEA = 0.49. Regarding criterion-related validity, it was stated that the correlation between "Self-Liking" and "Self-competence" and the Rosenberg Self-Esteem Scale was .75 ($p < .001$) and .69 ($p < .001$). In this study, Cronbach's alpha internal consistency coefficients associated with the "Self-Liking" and "Self-competence" subscales were found to be .88 and .90, respectively.

Questionnaire to assess the health-related quality of life of children and adolescents: KIDSCREEN [36] is a shorter version, and it represents the 10 authentic dimensions condensed into the following 5 dimensions: Physical Well-being, Psychological Well-being, Autonomy and Parent Relation, Social Support & Peers, and School Environment. KIDSCREEN 10 provides a global HRQoL score and is recommended for use in large studies [36]. The Kidscreen-27 represents the 10 dimensions from the full 52-item version merged into five dimensions: physical well-being (five items), psychological well-being (seven items), autonomy and parent relation (seven items), social support and peers (four items), and school environment (four items). Each item was rated on a five-point Likert scale, indicating either the intensity of an attitude or the frequency of a behavior or feeling. All KIDSCREEN questionnaires may be used appropriately for healthy and ill children and adolescents from 8 to 18 years of age [34]. Proxy versions of the instrument are used from 6 years of age [38]. Previous studies have shown that the instrument is both reliable and valid in measuring HRQoL in children and adolescents [34].

Three assistant professor at English Dept. independently translated the KIDSCREEN- into Arabic. Modifications to items were introduced by consensus. Three key informants to improve the comprehensibility of the items were used. They were doctoral students who had experience in working with children and young people. They assessed the possible difficulties that Saudi children and adolescents might have in understanding the questionnaire and provided suggestions for improvements. Because of the nature of the sample, the version of the questionnaire was modified in size and letter type. The questionnaire showed acceptable internal consistency, Cronbach's α values ranging from .79 to .89.

Perceived Freedom in Free Time Scale (PRSS) was developed by Witt and Ellis (1985) This scale was adapted into Arabic by the author and was used as a data collection tool. The original scale consists of 25 items and a single factor. It

is designed to measure perceived competence, perceived control and perceived intrinsic motivation in free time. Each item was rated on a five-point Likert scale: strongly disagree (1), disagree (2), undecided (3), agree (4), strongly agree (5). The questionnaire showed acceptable internal consistency, Cronbach’s value was .91, near that got by the original author.

3. Statistical Analysis

The online survey programme automatically prompted participants when they skipped an item, so there were no missing data. The internal consistency of each subscale score was examined. The bivariate correlations among Self-esteem, Recreation Activities, and Quality of Life Were examined. Structural equation modeling was used to test the hypothesis that self-esteem would mediate the relationship between Recreation Activities and the Quality of Life of youth with visual impairment. All data analyses were conducted using the SPSS and AMOS version 21.

Results

1) Correlation Analysis

Table 1 presents the mean, standard deviations (SD), and Pearson correlation coefficients between the major variables. According to Table 1, there are positive and significant relationships between self-esteem, recreation activities, and quality of life. As can be seen from Table 1, there is a positive and significant relationship between recreation activities and self-esteem ($r=.336$; $p<0.01$), and quality of life ($r=.384$; $p<0.01$).

Table 1. Mean, standard deviation (SD), and correlations for study variables.

Variables	Mean ±SD	1	2	3
1. recreation activities	65.22 ±2.16	-	.336**	.384**
2. self-esteem	112.23 ±2.43		-	.399**
3. quality of life	100.19 ±2.80			-

2) Goodness of fit

The overall model fit is presented in Table 2. Based on Table 2, the Goodness of Fit index showed good fit according to DF, CMIN/DF, GFI, NFI, IFI, and TLI and close fit according to RMSEA. Meanwhile, the sig. Probability demonstrated marginal fit, which was still acceptable. Therefore, the model goodness of fit assumption used in this research was accepted.

Table 2. Model goodness of fit test.

N	Goodness of fit index	Cut-off value	Result	Conclusion
1	Sig. Probability	= 0.05	0.017	Marginal Fit
2	Df	> 0	50	Good Fit
3	CMIN/DF	= 2.56	1.663	Good Fit
4	GFI	= 0.90	0.920	Good Fit
5	NFI	= 0.92	0.9713	Good Fit
6	CFI	= 0.91	0.9602	Good Fit
7	IFI	= 0.93	0.9611	Good Fit
8	TLI	= 0.92	0.9731	Good Fit
9	RMSEA	= 0.06	0.049	Good Fit

3) Hypotheses test

The hypotheses were tested to determine whether recreation activities had a direct effect on quality of life or whether it had an indirect effect after mediation by self esteem. the analysis results are shown in table 3 and figure 2. the findings revealed that recreation activities had a significant positive role in quality of life ($\beta = 0.377$; $p < 0.01$), recreation activities had a significant positive role in self esteem ($\beta = 0.386$; $p < 0.01$), self esteem had a significant positive role in quality of life ($\beta = 0.345$; $p < 0.01$), and self esteem had a mediating role in the relationship between recreation activities and quality of life ($\beta = -0.399$; $p < 0.01$).

Table 3. Hypotheses analysis results.

Path	Coefficient (β)	P-value
Direct effect		
recreation activities -> quality of life	0.377	0.000**
recreation activities -> self esteem	0.386	0.000**
self esteem -> quality of life	0.345	0.000**
Indirect effect		
quality of life -> recreation activities -> self esteem	0.285	0.000**

Path	Coefficient (β)	P-value
Total effect		
self esteem -> recreation activities -> quality of life	0.399	0.000**

**P < 0.01

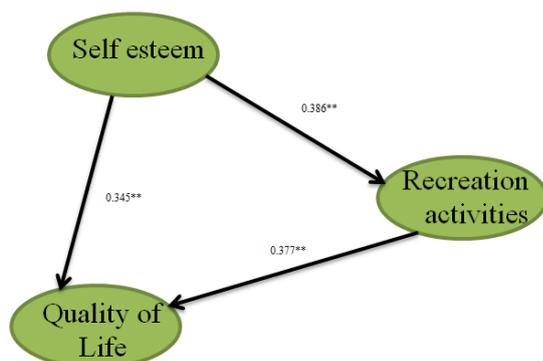


Figure 2. Self-esteem - Recreation Activities -Quality of Life.

4. Discussion

This study tried to explore these unanswered questions about the potential pathways by which Self-esteem mediates the relationship between Recreation Activities and QoL. The results found that sports participation was directly associated with self-esteem. Previous researchers also found a positive relationship between sports participation and self-esteem [2, 10, 37].

Visually impaired individuals face discrimination in social life. First of all, visually impaired individuals are deprived of the opportunities available to society [33, 39]. Visually impaired children are unable to run, move, climb or jump, etc., because they are deprived of visual stimuli. They carry out activities less frequently and more carefully [13]. Visually impaired individuals are also weak in terms of communication such as initiating relationships, understanding others, and social use of language [17, 27].

In addition, visually impaired individuals may experience fear of being observed, anxiety about being late, fear of falling, crashing, and social fears [15, 20]. All these psychological, sociological, and social problems are problems that negatively affect the quality of life of visually impaired people [32].

In a study conducted on children, it was found that students who do sports have a higher quality of life [7, 45]. QoL is affected by cultural, social, and physical factors. With exercise, an improvement in the physical and psychological QoL is observed. Regular physical activity is associated with better quality of life in the elderly, young people, and people with different health [29, 35].

In a study conducted on physically disabled people involved in sports, it was determined that disabled people involved in shooting sports felt energetic and vigorous and their physical activity levels increased [3]. Although these studies have methodological and research group differences, they are parallel to this study and support the literature, as development in favor of the sports groups is observed in terms of the results of the research.

There are positive relationship between recreational activities, QoL and self esteem In Bařaran's (2016) study with female convicts, it was determined that recreational activities had a positive effect on increasing their self-esteem and reducing their level of loneliness. While Whitehead & Corbin [44] stated that physical activity and physical education programs can help develop self-esteem when used appropriately. Bayazit [8] found that recreational activities had a positive effect on the self-esteem of adolescent women [28]. There is research stating that recreational activities positively affect self-esteem in reducing the level of social phobia [12, 26].

Sports participation effects Self-esteem. It has been concluded that the reason for why self-esteem is positively correlated with sports participation is that sports participation increases feelings of competence, and satisfaction with physical appearance which can result in a rise in self-esteem [10]. The relationship between self-esteem and sports participation has been well documented in the literature. Different studies have concluded that self-esteem and sports participation are positively correlated [31].

5. Limitations

Due to the cross-sectional design of the study, it is not possible to establish causality between variables. Although the cross-sectional study cannot be used to determine causal relationships a cross-sectional study can provide clues that will serve as a useful tool to guide further experimental studies.

6. Conclusion and Direction of Future Research

The important point for the visually impaired is what is generally thought of as health rules; controlling stress, ideal body weight, a healthy heart circulation, staying away from smoking, etc. One of the most important tools that lead to factors such as being at the desired level of health is exercise.

Sports activities are a powerful remedy against anxiety and feelings of inferiority. A disabled person who is faced with mental symptoms due to disability cannot isolate himself from society with the contributions of sports activities. Disabled people gain joy in life thanks to sports activities and learn to accept life in all its forms. Identifying and resolving the problems of visually impaired individuals will directly contribute positively to their QoL. In this way, those individuals will have the opportunity to live a more comfortable and harmonious life with society.

It has been observed that the QoL is affected by the level of sports and physical activity. There are many factors that affect the QoL of visually impaired people. Participation in sports and physical activity has an important place among these factors. Physical education and sports teachers, coaches, relevant institutions and organizations, sports federations and local authorities have great responsibilities to ensure the participation of visually impaired people in sports and physical activities and to improve their QoL. It is a very important issue for visually impaired people to participate in sports and physical activities and investigate their QoL so that they can live in well-being.

This research emphasizes the importance of sports and physical activity for the visually impaired, to raise awareness about the factors that affect the change in their QoL, to increase the awareness of physical education and sports teachers and coaches working in this field, to contribute to the literature on sports, physical activity and QoL in the visually impaired. It is thought that it will guide the efforts of institutions and organizations, sports federations and local authorities to improve the QoL of visually impaired people and contribute to the literature on examining the subject from a different perspective.

It is thought that if visually impaired children are directed to sports activities through their parents and teachers, it will support their physical and cognitive development.

Funding

This study does not contain any external funding sources.

Ethical Approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent

Informed consent was obtained from all individual participants included in the study.

Conflicts of Interest

The authors declare no conflicts of interest.

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