

Analysis of the Impact of Cognitive Behavior Counselling on the Self-esteem of Visually Impaired Subjects

Abeer Hussien Khayat

Clinical Psychology, Department of Psychology, Faculty of Arts and Humanities, King Abdulaziz University, Jeddah, Saudi Arabia

Abstract This study investigates the effectiveness of cognitive behavior counselling program on the self-esteem of a sample of visually impaired people. The subjects for this research comprise eight visually impaired female students from the King Abdulaziz University of Jeddah, Saudi Arabia, aged 18-25. The subjects were chosen for participation in the study and verbally consented to participate in its cognitive behavioral counselling program. After completing the Rosenberg Self-Esteem Scale Test, they participated in the counselling program, which had two sessions per week in February and March 2017. At the completion of the counselling program, the subjects took the Rosenberg Self-Esteem Scale test for a second time, and two months afterwards also took it for a third time. The data obtained from this research was analyzed using the Wilcoxon Signed-Rank Test. The results showed several differences for the group in terms of their self-esteem levels. The results emphasize the value of behavioral counselling programs for helping visually impaired subjects integrate into society by increasing their self-esteem.

Keywords Blindness, Visual impairment, Cognitive behavioral counselling program, Effectiveness, Self-esteem

1. Introduction

Visual impairment (blindness) and self-esteem have been studied for many decades, since people with disabilities have always shown a lack of self-confidence or depression [1]. Scientists all over the world have been running studies and research in this field and on this specific topic, with different age ranges or locations for the subjects. According to Gardiner-Walsh, Kemmery and Compton [2] having an expert in the teacher's educative role is very important, as his specialization can help people with disabilities. Some previous studies show that people with visual impairment consider themselves as social and economic burdens [3]. Self-esteem has also been an important psychological factor for subjects taking part in cognitive behavioral therapies all over the world, to ensure that all the impacts on their quality of life are taken into consideration [4].

According to previous research, people with visual disabilities tend to have lowered self-esteem, which can result in fewer social interactions or undeveloped social skills [1]. This is a similar situation as the one for people with hearing impairment, and can also be seen in the low number of hearing impaired students enrolling in education, since they are either ashamed of themselves or afraid that society won't accept them with their disabilities [2].

The World Health Organization defines disabilities as disorders that prevent people from having social contact with other people, and can lead to multiple pessimist feelings. In addition, people with disabilities sometimes need assistance and additional care, depending on the degree of their disability [3]. Current technology offers multiple methods by which visually impaired people can feel like they are part of the community, because much interpersonal communication, even if it doesn't require visual contact, can increase social skills [5]. Visually impaired people tend to feel alone and have difficulties in finding new friends, while their academic knowledge can suffer if psychological help is missing [1]. As a result, people with visual impairment tend to develop social disorders and deviant behaviors, based on communication and behavioral problems and caused by low esteem. Previous literature reviews have also shown that losing vision may decrease quality of life, increase dependence and lower a person's ability to participate in social activities, which is not a surprising fact [3].

Psychological disorders may occur from a fragile age, when children start trying to join groups and make friends. However, visual impairment can add to these daily challenges for the child, since he is not confident in his social skills and lacks self-esteem [6]. Identifying the factors that contribute to self-esteem is vital for building a person's confidence, and professionals can recommend and apply the right therapy with this knowledge. It is known that change starts with the individual, but many times people also need to receive specialist support and guidance [7]. To better integrate themselves into society and lose their social fears or

* Corresponding author:

dr.abeerkhayat@gmail.com (Abeer Hussien Khayat)

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challenges, visually impaired people need to take part in various psychological programs that can increase their confidence levels. In this context, a study that observes their self-esteem before and after participating in a cognitive behavioral counselling program should be developed.

The eye is an organ which plays a major part in social relationships. A visually impaired person may be considered disadvantaged in this respect however, but through exercise, a visually impaired person can learn higher-level social skills. Some studies have found however that a visually impaired person can be affected negatively by interpersonal communication [8], given the importance of being able to observe the other person's body-language. Lack of input about the other person's body-language often leads to incorrect responses from a visually impaired person. For visually impaired children, reading body-language is even harder without the education that they gain from interacting with other children. Visually impaired people need to develop their communication skills to counteract these various deficits, however, there have been very few studies on visually impaired people, which suggests that they have been ignored by researchers.

Social behavior studies have shown that visually impaired people largely have to depend on how society sees them and acts towards them for developing their communication skills and empathy, since positive changes in self-esteem are much more possible with society's support [9]. Other studies have proven that society's support can also be effective in other situations, such as problem solving and coping with stressful situations. Many results have shown that during the adolescent years it is vital for visually impaired people to learn such skills [8].

According to Adamson, visually impaired people acquire most of their self-confidence and self-esteem through family education, before they develop social relationships with the external world. So, if a child or adolescent does not receive the full support from his family, he will face several social issues when interacting with other people [10]. For this reason, it is recommended that visually impaired people follow a counselling program to ensure that they develop their social skills. Clinical psychology can also become a valuable partner to counselling programs, so that specialists (such as behavioral pediatricians, psychologists, neurologists or therapists) can work together to improve the visually impaired person's self-esteem. Such a multi-layered counselling program has been used in this study.

For all people, consideration of the experiences, thoughts and emotions of others can foster the development of more self-esteem simply through empathy, which can be defined as an essential ability by which one person can understand others and their problems through communication [8].

2. Background

Self-esteem has been the subject of much research and study in the past years, as it is very important to a person's

behavior and social skills. Throughout time everyone working with personal development has tried to implement new strategies for increasing self-esteem, including teachers, psychologists, parents and others. If self-esteem is at a high level, then people will only experience benefits and positive outcomes [9]. People with sound self-esteem are more liked and accepted in society, since they can complete tasks and show increased performance than people who are continuously depressed or anxious. Self-esteem can encourage people to push their limits and try harder to achieve their dreams and tasks, since it facilitates persistence over failure.

As Baumeister [11] maintains, self-esteem is strongly related to happiness, while low self-esteem is associated with negative behavior. Similarly, other research indicates that a positive self-concept can help a visually impaired person better integrate into society and improve social skills, regardless of their lack of access to the helpful input of body-language [12].

Disabled people may suffer from low self-esteem levels because they feel different from and vulnerable compared to non-disabled people, and perceive themselves as incomplete or unable to accomplish simple daily tasks. Additionally, people with disabilities perceive themselves as a problem for society, which leads to several issues regarding adaptive behaviors, self-sense, social skills or self-development.

Sometimes, visually impaired people are praised and applauded for small and ordinary tasks [6], but this can have two different effects: the visually impaired person can have his self-esteem overrated or inflated, or he can recognize the falsity in the words and devalue the quality/significance of the completed task.

People with disabilities may need to change several aspects in their daily routine, which is a difficult thing to do if there is no guidance or support [7]. People with visual impairment should be supported and assisted at these times if they need it, but should also be able to feel normal and accepted just like non-disabled people.

As multiple research papers have shown in the past decades, though, people with visual impairment have difficulties in adapting to society, sometimes even lacking opportunities to develop important relationships and connect with their friends or family [5]. This is a challenge that friends and family face as well, since they will want to provide full support and assistance to their visually impaired person.

Admiration and respect can help a visually impaired person's self-esteem increase, as long as this doesn't come tinged with pity [6]. Previous research in countries like India and in Kerala [13] has also shown that people with visual impairment, and disabilities in general, tend to have constantly evolving coping and resilience. People often find that visual input can lead to deeper understanding and help problem solving, but a visually impaired person's inability to receive visual input can become another reason for them to feel inferior [5].

If they are treated with an attitude of inferiority, visually impaired people can feel less secure and have lower a self-esteem [14]. A visually impaired person's self-esteem also depends on the way the community integrates him and how it interacts with him. The appropriate attitude is not one of pity, but one of understanding, support and admiration [6].

Knowledgeable experts focus on helping visually impaired students with their learning and education, and at the same time know how to respond to any disabilities such as hearing or visual impairment. There are numerous projects and grants all over the world aimed at improving self-esteem in visually impaired people, with support from teachers and social experts.

Previous research by Yildiz and Duy [8] shows that interpersonal communication is effective for people with visual impairment. The construction a close and strong relationship between people gives a visually impaired person's self-beliefs and self-esteem the chance to improve, while social problems or anxiety can decrease. Individual behavior can be improved through interventions and follow-ups provided by specialists, to ensure that visually impaired subjects are continuously under observation, as well as following the suggested therapy [15].

The aim of a cognitive behavioral counselling program is to help people increase their self-esteem and gain a positive sense of self, which will encourage them to develop their personality and complete the normal daily tasks facing them. Visually impaired people's low self-esteem can thus be improved as it gives them the chance to learn to accept their condition and understand that they are not different from others. The positive changes resulting from the behavioral therapy applications and acknowledgement experienced in a cognitive behavioral counselling program can help to increase the self-esteem of people with visual impairment [9]. Previous research has shown that people with disabilities need support and counseling to believe in themselves [16].

3. Objectives

This research was developed because visually impaired people are more depressed or have lower self-esteem, and thus need counselling programs. Accepting visual impairment can be considered a challenge necessary for adapting to life's demands, but, at the same time, it is a process that involves family, friends, teachers, therapists and any other people interacting with the visually impaired person [6].

The aim of this study was to examine the effectiveness of a cognitive behavioral counseling program on the self-esteem of a sample of visually impaired subjects, using pre-assessment and post-assessment analysis.

4. Method

4.1. Sample

The sample used for this study comprises one single study group, of eight (8) sight-impaired female subjects aged 18-25, students at the King Abdulaziz University in Jeddah, Saudi Arabia. All subjects were selected to participate in the study. They were informed about the study protocols, and counselling programs, as well as the purpose of this research and its duration.

The subjects gave their verbal consent to participate in this research, and agreed to be in the behavioral counselling program, because they wanted to experience psychological changes in their self-esteem, and were interested in knowing more about themselves and in acquiring raised self-confidence.

The subjects filled in the Rosenberg Self-Esteem Scale and answered all its questions regarding self-esteem, honestly as best as they could, at three stages in the study. The first time (the pre-test), was before participating in the counselling program; the second time (the post-test), was after the counselling program; and the third time was in a follow-up session held two months after the completion of the counselling program (the follow-up test).

4.2. Instruments

The study used two instruments: a Cognitive Behavioral Counselling Program for the counselling program; and the Rosenberg Self-Esteem Scale for assessment during the pre-test, post-test and follow-up test.

4.2.1. Cognitive Behavioral Counselling Program

The sample of visually impaired students followed a Cognitive Behavioral Counselling Program in February and March of 2017. The program consisted of twelve sessions, of 50 to 90 minutes each. The sessions took place twice a week, and the entire intervention took place within two months, so there was approximately six weeks between the pre- and post-tests, and another eight weeks till the follow-up test.

4.2.2. The Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale (RSS) was created in 1963 by Morris Rosenberg. Respondents use it to self-report levels of self-esteem by answering multiple-choice questions. Its different categories show how a respondent sees himself in society, reacts to criticism, perceives others in interpersonal relations, perceives his relationship with his parents, and other psychological indicators [17].

In this study, the RSS was applied to the visually impaired sample three times: for a pre-test, post-test and follow-up test. The scale consists of 10 items to which each subject had to respond to statements dealing with their general feelings about themselves. The items used a 4-point Likert scale format, in which 1 = Strongly Agree and 4 = Strongly Disagree. Items 2, 5, 6, 8 and 9 were scored in reverse. Higher self-esteem was indicated by higher scores, offering valuable insight into each subject's self-esteem. Overall, the RSS presented high ratings in terms of reliability and validity.

4.3. Data Analysis

The data obtained from this research was analyzed using the Wilcoxon Signed-Rank Test, which is most commonly used to compare two sets of results, coming from the same participants at two different points in time. The Wilcoxon Test is basically a non-parametric test, equal to the dependent t-test [18]. The Wilcoxon Test is most commonly used for understanding if a counselling program has been effective for the subject's behavior and attitude, since it shows valuable results. In this study, this test was used twice: once for comparing the pre- and post-test results (i.e., before and after the counselling program), and a second time for comparing the post- and the two-month follow-up test results.

5. Results

The results of the two evaluations of the data from the use of the Wilcoxon Signed-Rank Test were then compared, and showed significant differences between the self-esteem levels before and after the counselling program.

In its first application, the Wilcoxon Signed-Rank Test indicated that the self-esteem post-test score was higher than the pre-test's, with 1 tie and 7 positive ranks, with a mean rank of 4.00 and a sum of ranks of 28.00. This shows that self-esteem levels were higher after the subjects had followed the behavioral counselling program than before. The test statistics from the Wilcoxon Signed-Rank Test had $Z = -2.38$, based on the negative ranks, with asymptotic significance (2-tailed) of 0.017. The results are shown in Tables 1 and 2.

Table 1. Wilcoxon Signed-Rank Test between Post-test and Pre-test Ranks

Ranks		N	Mean Rank	Sum of Ranks
Self-esteem Post-test – Self-esteem Pre-test	Negative Rank	0 ^a	0.00	0.00
	Positive Rank	7 ^b	4.00	28.00
	Ties	1 ^c		
	Total	8		
a. Self-esteem Post-test < Self-esteem Pre-test				
b. Self-esteem Post-test > Self-esteem Pre-test				
c. Self-esteem Post-test = Self-esteem Pre-test				

Table 2. Wilcoxon Signed-Rank Test between Post-test and Pre-test Test Statistics

Test Statistics ^b	
	Self-esteem Post-test – Self-esteem Pre-test
Z	-2.379 ^a
Asymp. Sig. (2-tailed)	0.017
a. Based on negative rank.	
b. Wilcoxon Signed-Rank Test	

Two months after the Rosenberg Self-Esteem Scale was applied for the second time, the subjects were tested for a third time using the same test to see how their self-esteem levels had developed over that two-month period. The self-esteem levels of 3 subjects had remained the same, while 1 showed lower self-esteem, and 4 showed improved results over the past two months (Table 2).

Using the Wilcoxon Signed-Rank Test for a second time, these new results were then compared to the previous post-test results to observe any differences between them. During the third, the follow-up test, subjects showed even more significant differences in their self-esteem levels. According to this application of the Wilcoxon Test, there was one negative rank with a mean rank of 1, three ties, and four positive ranks with a mean rank of 3.5.

The test statistics for the follow-up analysis had a Z value of -1.76, and an asymptotic significance, 2-tailed value, of almost 0.8, showing a slight decrease in self-esteem levels two months after the cognitive therapy has ended. The results can be observed in Tables 3 and 4.

Table 3. Wilcoxon Signed-Rank Test between Follow-up test and Post-test Ranks

Ranks		N	Mean Rank	Sum of Ranks
Self-esteem Follow-up test – Self-esteem Post-test	Negative Ranks	1 ^a	1.00	1.00
	Positive Ranks	4 ^b	3.50	14.00
	Ties	3 ^c		
	Total	8		
a. Self-esteem Post-test < Self-esteem Follow-up test				
b. Self-esteem Post-test > Self-esteem Follow-up test				
c. Self-esteem Post-test = Self-esteem Follow-up test				

Table 4. Wilcoxon Signed-Rank Test between Follow-up test and Post-test Statistics

Test Statistics ^b	
	Self-esteem Post-test – Self-esteem Follow-up test
Z	-1.761 ^a
Asymp. Sig. (2-tailed)	0.078
a. Based on negative rank.	
b. Wilcoxon Signed Rank Test	

6. Discussion

Any disability can change a person's self-image and lead to depression, anxiety, isolation and low self-esteem [19], and as the literature and previous research show, people with disabilities develop a poor body image, because their impairment creates a negative feedback [20].

Previous studies such as those by Baumeister [11] or Cimarolli [16] demonstrate that there is a connection between self-esteem and cognitive counselling and that a counselling program can positively impact self-esteem [9].

In this study, for instance, after the counselling program stopped there was a considerable increase in self-esteem between the pre-test and post-test scores on the Rosenberg Scale ($Z=2.38$ and $p<0.02$).

Even though people with low self-esteem tend to become unproductive and depressed, and avoid contact with society, researchers also find that cognitive behavioral counselling programs are effective when they allow subjects to express their thoughts and frustrations, and thereby increase their self-esteem and reduce anxiety. Since they learn how to better understand their goals and achievements and develop better social relationships, completing such counselling programs helps visually impaired people become more successful and respected by society [21]. Sound self-esteem thus helps visually impaired people better integrate into society and accomplish their personal goals, while completing the regular daily tasks that non-disabled people do.

Low levels of self-esteem may lead to depression [22] and negative interpretation of events surrounding the subject. A negative attitude will also have an impact on the visually impaired person's integration into society, since his behavior may be highly damaged [16]. Cognitive behavioral sessions increase self-esteem, thus helping people to have better thoughts about themselves, the surrounding environment and society, and thereby increasing their chances of various accomplishments. Visually impaired people with high self-esteem can complete tasks faster, because they trust themselves and know that they can complete the tasks. By this means, increased self-esteem can play an important role in that person's behavior.

As the present research was implemented with 8 visually impaired female students who showed a low self-esteem level before participating in the counselling program, the results cannot be generalized, since other age groups or male subjects did not participate. A plus of this research was that the time-period was not constrained, which allowed performance of follow-up assessment two months after the sessions had ended in order to evaluate the effectiveness of the cognitive program.

In cognitive terms, this study proved that completing a counselling program can increase self-esteem in visually impaired subjects, helping them to accept their disability and ignore other negative self-appraisal, which then ensures better success in everything that they do. Cognitive counselling programs like this one can reduce the irrational beliefs held by experimental group subjects, and increase their self-esteem. Face-to-face assertiveness counselling is a form of cognitive behavioral counselling that changes a subject's behavior while talking and listening to others, and provides opportunities for self-development and the expression of personal ideas [12]. Behavioral modifications like those can be considered as improvements in self-concept focused on satisfaction, power, optimism and feelings of high self-esteem. This study shows that implementation of such a counselling program will increase both self-esteem and social skills, consistent with Baumeister's studies and

research, as well as any many other studies on self-esteem.

Body-language is important in a face-to-face conversation and visually impaired people may become upset when they are not aware of how the other person is responding, i.e. by using body language. Visually impaired subjects don't know how to express their emotions and communicate using their body, since they can't observe and learn from others how to do it [12]. Consequently, this impairment can set them aside from others, limiting their social skills and relationship, however self-esteem can be improved through counselling and thus help them in this area too.

The findings of this study show how important a positive attitude is towards oneself and that education can also be improved by the use of cognitive behavioral therapy, as a result of strengthening and increasing of self-esteem, and motivating the subject to become more successful and determined in everything that he does. The findings of this research in this regard are consistent to other previous studies by Cimaroli and Boerner [16] and Ciarrochi [21], Heaven and Fiona [21] as well as many others that have been presented during the background section.

Previous research indicates that cognitive therapy can improve visually impaired people's self-esteem if they follow regular weekly sessions [23]. The results of this study are consistent with those of other previous research [24, 11, 23]. Significantly though, but this study also found that, even though the self-esteem levels increased after the counselling program, those self-esteem levels had slightly decreased two months later.

7. Conclusions

Having analysed the effect of cognitive behavioral counselling program on visually impaired people, with tests applied before and after the therapy and also with a follow-up test held two months afterwards, this study has shown that its subjects showed high levels of self-esteem after the program, but also that these high levels decreased after two months. This change is significant, as it shows that visually impaired people don't only require counselling, but require it to be ongoing on a regular basis, to ensure that negative feelings are removed from their behavior, and that their self-esteem remains at a decent level, so they can become more successful and self-confident in everything that they do.

Society's aim should be to help visually impaired people better integrate, by supporting them in everything they do, so they gain more confidence, and thus become more productive and independent.

8. Limitations of This Study

This study was limited to a small sample group of only 8 female students aged 18-25. Additional research should be developed for male subjects, as well as other age groups, and subjects of different social and educational status and any

other demographic difference.

9. Recommendations

This research makes several recommendations.

- That visually impaired people be encouraged to join multiple social groups and therapy sessions specifically designed to challenge their self-esteem, and improve their personal behavior
- That visually impaired people follow continuous personal development training, to ensure that they have self-esteem training on a regular basis
- That the community be informed about visually impaired people's need for support and confidence
- That family and friends support their visually impaired person in everything that he does, but keep this at a moderate level so that his personal confidence doesn't suffer any damage
- That future research is needed to apply the same instruments and counselling program to different age groups, male patients and subjects of different social status, to ensure that the results can be generalized and thus valid and real.

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