

EFFECTS OF INTERPERSONAL PSYCHOTHERAPY ON SELF-SATISFACTION TOWARDS THE USE OF HEARING AIDS AMONGST STUDENTS WITH MILD-TO- MODERATE HEARING IMPAIRMENT: JOS METROPOLIS, NIGERIA

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ABSTRACT

This study Effects of Interpersonal Psychotherapy (IPT) on Self-satisfaction towards the Use of Hearing Aids amongst Students with Mild-to-Moderate Hearing Impairment in Jos has the objective to examine the extent to which IPT can change low level or negative Self-satisfaction. Through Pretest-Posttest Control Group Design, 20 students with mild-to-moderate hearing impairment were shared into experimental and control groups; each had 10 samples. The Instrument for data collection at pre and post-tests was self-satisfaction on Usage of Hearing Aids Scale (SUHAS). The simple frequency counts, mean scores and percentages were used to answer the research question, while Analysis of Covariance to test the Hypothesis at 0.05 level of significance. Results revealed that IPT change negative self-satisfaction of students with mild-to-moderate hearing impairment to a positive one. The hypothesis shows that the treatment was effective in improving self-satisfaction to a high level amongst students with mild-to-moderate hearing impairment. The research recommended that National Associations of relevant professionals should carryout conferences, seminars and the like on the fact that low level of negative self-satisfaction of students with mild-to-moderate hearing impairments can be changed significantly through IPT.

Keywords: Interpersonal Psychotherapy, Self-satisfaction, Hearing Aids, Impairment, Mild-to-moderate hearing impairments.

Introduction

Self-satisfaction is simply enjoyment or gratification after usage of hearing aid by a student with mild-to-moderate hearing impairment. Otana (2018) affirmed that self-satisfaction of hearing aid is a swift assessment of a student's hearing aids usage; precisely, the pleasure or displeasure and satisfaction or dissatisfaction the user had derived from hearing aids. Self-satisfaction is often measured by a questionnaire with items in it, meant to determine the self-satisfaction of hearing aids usage. Jikukka (2021) accentuated that self-satisfaction refers to the outcome of student with mild-to-moderate hearing impairments' personal assessment of benefits derived from own hearing aids. This assessment is guided by questions developed by the clinician and directed to the student with mild-to-moderate hearing impairment using

hearing aids. Self-satisfaction towards the use of hearing aids is a way of thinking, sensation and personal fulfilment towards hearing aids that is conceptualized by gratification.

Self-satisfaction is the amount of personal gratification and pleasure derived after hearing aids usage expressed by a student with mild-to-moderate hearing impairment. Otana (2018) averred that negative self-satisfaction to use of hearing aids is commonly seen in form of disuse and under-use of the equipment; ordinarily expressed by way of thinking, emotion, behaving, mind-set and reaction towards the devices. It is a kind of apathy or weariness often exhibited towards the equipment. Ali (2006) asserted that the primary clinical management intervention for students with mild-to-moderate hearing impairment is hearing aids usage, however, 80% who would benefit from the equipment, do not use it. There is therefore, need to manage this odd self-satisfaction towards hearing aids, its' end result is often grief, emotional traumas and psychological problems.

Interpersonal Psychotherapy (IPT) is a treatment that was originally designed to help people who had experienced deep grieves, caused by the death of beloved ones. Weisman, Markowitz and Klerman (2007) emphasized that IPT is both a treatment and rehabilitation plan which is time-limited, structured based on academic considerations and social-psychology strategies. Its central idea is on psychological symptoms such as depressed mood, grief and hate for materials like hearing aids. Weisman (2006) highlighted that the evidence for IPT supports is used for a variety of affective, eating and anxiety disorders. Markowitz and Klerman (2007) stressed that IPT from inception, is an empirically validated treatment for a variety of psychological and psychiatric maladies. It later became an empirically corroborated treatment for behavioral disorders.

IPT furthermore focuses on conflict with self, one's feelings and others. It is recognized as an efficacious psychotherapy by the American Psychiatric Association (APA), and National Institute for Health and Clinical Excellence (NIHCE) in the UK. There are now many empirical studies supporting the efficacy of IPT in handling belief, affect and behaviour disorders (Markowitz & Weissman, 2004). The researchers expect that the IPT in this study, would help students with mild-to-moderate hearing impairment and with recurrent negative or low self-satisfaction of hearing aids. As rehabilitation and management plan, it is a specially designed ten weeks counselling and therapy programme.

Mild-to-moderate hearing impairment is a decrease in sensitivity of the human hearing due to an existing damage within the organs of hearing; with hearing range between 36dB to 60dB. Prior to the study, the researcher undertook a need analysis of possible hearing aids desire and interest; it indicates that students with moderate hearing impairment often crave for hearing aids than those with mild hearing impairment.

Hearing aids are sound-amplifying devices designed to aid students whose hearing had deviated from the societal norms. Babudoh (2008) heightened that despite the usefulness of the sound amplifier to students with mild-to-moderate hearing impairment, there is a wide spread dislike for its use by these students. Positive self-satisfaction, is of great importance to the user and can never be over emphasized: the student is enabled to access sounds, information, lectures, discussions and learning is properly facilitated. Positive self-satisfaction

of students to use of hearing aids can lead to huge academic developmental strides and experiences at school and in life generally.

According to World Health Organization (2006), mild-to-moderate hearing impairment is associated with negative consequences yet only one out of five students who could benefit from a hearing aid actually wears it. Although there are a number of reasons as to why hearing aids are rejected by those who should have used them; low self-satisfaction and fear of being discriminated against or stigmatization, seem to be the root cause of the said rejection. This eventually results in poor academic performance, which also or in turns results to psychological trauma. A simple interaction with students revealed that there is attitude of apathy for the use of hearing aids as a result of low or negative self-satisfaction, and so it is worth mentioning and worth mentioning well that when hearing aids are recommended to students, they do not obtain them; a few that obtained these hearing aids do not use them to the maximum.

Hearing aids are electro auditory piece of equipment which characteristically fit behind the users' ears, on their bodies or implanted as cochlear implant. Abiodun, (2011) affirmed that other hearing aids may be fitted in the ear, in the canal, completely in the canal and so on. In each case, it serves as a sound-amplifying device. The device increases and modulates information for the wearer. Abiodun further added that each sound-amplifying device is supposed to amplify sound energy and the mould directs the amplified sound into the ear canal. Once the sound-amplifying devices/equipment is in use by a user, the speaker does not require shouting to reach the user since the sound is being amplified; which also improves the usefulness of the piece of equipment.

Jikukka (2012) conducted a simple field survey at Otana Hearing and Edu-Health Services Jos in 2011/2012 academic session, and found that about 90% of students with mild-to-moderate hearing impairment who were recommended hearing aids, were unable to get themselves fitted with any, while about 80% that were fitted with hearing aids disused or under-used those aids in less than four months, due to negative self-satisfaction and so on.

Students with mild-to-moderate hearing Impairment are those learners whose organs of hearing are damaged and hearing is deviated from societal norm. Vande (2016) accentuated that mild-to-moderate hearing impairment is audibility deficiency or acoustics perception deficit. The researchers undertook a need analysis of hearing aids usage amongst Students with Hearing Impairment (SWHI) and it indicated that students with severe hearing impairment often crave for hearing aids than those with moderate impairment. Likewise, those with moderate hearing impairment often crave for hearing aids than those with mild hearing impairment. But those with mild and moderate hearing impairment engage selves into negative self-satisfaction to a high negative extent.

Abduljawa (2002) maintained that students with negative self-satisfaction towards hearing aids as a result, often experience so many developmental conflicts; their academic performances at school are often behind their peers, leading to academic failures. Markwitz and Weissman (2004) acknowledged that students with mild-to-moderate hearing impairment go through communal conflicts that are related to their ages such as adolescence; they fear stigmatizations and as a result develop apathy and negative self-satisfaction towards

the use of hearing aids, leading to terrifying experiences of living under suspicions and usually result in emotional trauma and psychological problems. Such students also often experience embarrassment, nervousness, shame and loneliness.

Other problems are, can IPT be used to: Change the negative self-satisfaction of students with mild-to-moderate hearing impairment to positive self-satisfaction of use of hearing aids? Change emotional disorders of students with mild-to-moderate hearing impairment who have negative self-satisfaction to that of like, joy, peace with self and the use of hearing aids? Enhance the fitting of hearing aids amongst learners with mild-to-moderate hearing impairment who have negative self-satisfaction towards hearing aids?

The aim of this study is to examine the influences of IPT on self-satisfaction of usage of hearing aids of students with mild-to-moderate hearing impairment. The specific objective is to: assess the extent to which IPT can be used to enhance the self-satisfaction towards the use of hearing aids amongst students with mild-to-moderate hearing impairment.

Research Question

1. What is the level of self-satisfaction towards the use of hearing aids amongst students with mild-to-moderate hearing impairment after exposure to IPT?

Hypothesis

1. There is no significant mean scores difference between students with mild-to-moderate hearing impairment in Experimental and Control groups on self-satisfaction towards the use of hearing aids after intervention.

This study is anchored on Festinger's Theory of Cognitive Dissonance developed in 1957. The theory states that human's behaviour/self-satisfaction can be changed through manipulations such as; treatment, psychotherapy or counselling (Jikukka, 2021). The theory is related to this study because it involves giving of counsel and psychotherapy that will help students do away with negative self-satisfaction towards the use of hearing aids. Rupke, Blecke and Renfrow (2006) said that therapy can bring about change in a person; turned negative self-satisfaction for hearing aids to that of like, joy and peace.

The findings of this study will benefit students with mild-to-moderate hearing impairment who disuse or under-use their hearing aids to develop interest in using hearing aids which would eventually enhance their academic performance and would not suffer the psychological problems that go with such failures.

Educational planners would equally benefit from this study as they identify students with negative self-satisfaction towards hearing aids. They could adapt the techniques in IPT to stimulate such students' interest for maximum use of hearing aids and positive self-satisfaction.

The findings of this research would increase the awareness and interest of other researchers and specialists, especially rehabilitation scientists, psychologists, audiologists, hearing aids care givers and other therapists; to apply the knowledge gained and recommendations to

help, encourage and guide students with mild-to-moderate hearing impairment to use their hearing aids to the maximum for positive self-satisfaction.

Methodology Design

The study utilized the true experimental design. Specifically, the Pretest-Posttest, Control Group Design. The reason for using pretest–posttest design was that it helped evaluate the gain scores of the Experimental and Control groups. The independent variable in this study was IPT and the dependent variable was self-satisfaction towards the use of hearing aids.

Threats to internal validity are controlled in the experiment by the use of control group in this kind of design (Awotunde&Ugodulunwa, 2004). Further serious threats to internal validity in this design was controlled before treatment, by ensuring that each student was one who has negative self-satisfaction towards hearing aids. Two B.Ed. degree holders in the relevant areas were used as research assistants to assist in conducting the experiment. Each research assistant had good knowledge of the variables on IPT, self-satisfaction of students and hearing aids usage.

This study population constitute forty-six(46) SSS1 students. The sample size of 20 students with mild-to-moderate hearing impairment were randomly assigned to experimental and control groups such that each group had 10 sample. Both experimental and control groups were administered the pre-test before the commencement of the treatment, then the experimental group was exposed to treatment (X) so as to establish the Effects of IPT on the self-satisfaction towards the use of hearing aids amongst students with mild-to-moderate hearing impairment. At the end of the treatment, a post-test was administered to both groups. The instrument used for data collection was self-satisfaction on Usage of Hearing Aids Scale (SUHAS). The validity of the instrument was generated to be 0.816. Also, a test retest reliability using Cronbach alpha measures stood at 0.953 for SUHAS.

The scale used for scoring SUHAS during the pretest and posttest was a five points Likert Scale rated: Strongly Agreed (SA = 5points), Agreed (A = 4points), Undecided (U = 3points), Disagreed (D = 2points) and Strongly Disagreed (SD = 1point). While analysing the items on the questionnaire, criterion for comparing the mean score was as seen below:

$$\frac{5+4+3+2+1}{5} = \frac{15}{5} = 3.0$$

The researcher then took the following decisions:

- (i) Any mean score equal to, or higher than 3.00 was positive self-satisfaction. This means that any item with mean score equal to, or higher than 3.00 indicates high self-satisfaction of hearing aids usage, and
- (ii) Any mean score below 3.00 was a negative self-satisfaction. This means that any item with mean score below 3.00 indicates low self-satisfaction of hearing aids usage.

Research Question One

What is the level of self-satisfaction towards the use of hearing aids amongst students with mild-to-moderate hearing impairment after exposure to IPT?

Table 1: Level of Self-Satisfaction towards the use of Hearing Aids amongst Students With Mild-to-moderate Hearing Impairment

Test	Self-Satisfaction of Experimental Group			Self-Satisfaction of Control Group		
	NEGATIVE	POSITIVE	Total (%)	NEGATIVE	POSITIVE	Total (%)
Pretest	10 (100)	0(0)	10 (100)	10 (10)	0 (0)	10 (100)
Posttest	1(10)	9(90)	10 (100)	8 (80)	2 (20)	10 (100)

Table 1 revealed the level of self-satisfaction towards the use of hearing aids amongst students with mild-to-moderate hearing impairment in Jos metropolis after exposure to IPT. Before exposure to IPT, both experimental and control groups had 100% negative levels of self-satisfaction (low self-satisfaction levels) towards hearing aids. But after exposure to IPT, the experimental group had 90% positive level of self-satisfaction (high self-satisfaction level) towards hearing aids, while the control group still maintains 100% negative level of self-satisfaction towards the use of hearing aids. This implies that majority of the students in both experimental and control groups showed high level of negative self-satisfaction towards the use of hearing aids before exposure to IPT. But after exposure to IPT, the experimental group showed high level of positive self-satisfaction towards the use of hearing aids. This implies that majority of the students in the experimental group showed high level of positive self-satisfaction towards the use of hearing aids after exposure to IPT. This invariably means IPT changed low (negative) level of self-satisfaction to a high (positive) level.

Hypothesis One

There is no significant mean scores difference between students with mild-to-moderate hearing impairment in Experimental and Control groups on self-satisfaction responses towards the use of hearing aids after intervention.

Table 2: Analysis of Covariance(ANCOVA)of Self-Satisfaction Responses Mean Scores Difference between Students' with mild-to-moderate hearing Impairment inExperimental and Control Groups Before and After Intervention

Source	Type Sum Squares	III of df	Mean Square	F	Sig.	Partial Squared	Eta
Corrected Model	3775.400 ^a	3	1258.467	54.309	.000	.819	
Intercept	26214.400	1	26214.400	1131.286	.000	.969	
Exp_Control	1144.900	1	1144.900	49.408	.000	.578	
Pre_PostTest	1464.100	1	1464.100	63.183	.000	.637	
Exp_Control * Pre_PostTest	1166.400	1	1166.400	50.336	.000	.583	
Error	834.200	36	23.172				
Total	30824.000	40					
Corrected Total	4609.600	39					

a. R Squared = .819 (Adjusted R Squared = .804)

Table 15 showed the ANCOVA result of self-rated satisfaction responses mean scores of students with mild-to-moderate hearing impairment in experimental and control groups before and after exposure to IPT. The statistics showed that a significant ANCOVA revealed that difference existed between experimental and control groups, with calculated F-value of 49.408 and p-value of 0.000. Since the p-value was less than 0.05 there was a significant effect of IPT on the Experimental group posttest mean scores. The null hypothesis was rejected and alternative hypothesis was accepted. This means the treatment was effective in improving the self-satisfaction amongst students with mild-to-moderate hearing impairment.

**Table 3: Adjusted Mean of Self-Satisfaction amongst Students
With mild-to-moderate hearing Impairment**

Group	Adjusted Mean
Experimental Group	42.40
Control Group	20.90

Table 3 showed the adjusted mean of self-satisfaction towards hearing aids amongst students with mild-to-moderate hearing impairment. Experimental group had 42.40 adjusted mean while control group had 20.90. This showed that there was a significance adjusted mean difference of self-satisfaction towards hearings aids usage of students with mild-to-moderate hearing impairment between experimental and control groups after exposure to IPT. This means the treatment was effective in improving the self-satisfaction towards hearing aids usage.

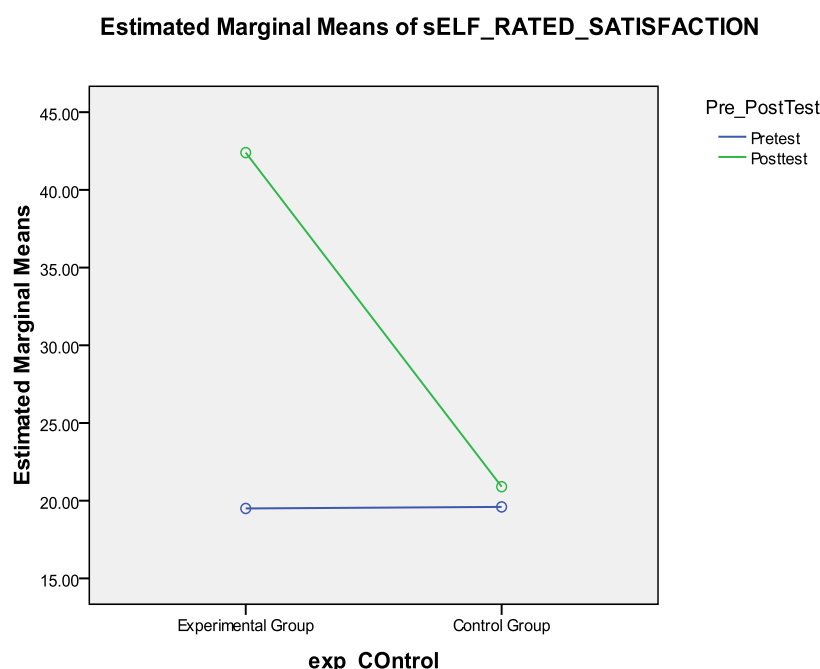


Figure 11
Self-Satisfaction amongst students with mild-to-moderate hearing impairment

Figure 11 showed the estimated marginal means of self-satisfaction (direction of self-satisfaction) of experimental and control groups towards the use of HA mean scores before

and after intervention. At pretest, both experimental and control groups had estimated marginal 20.00 and 20.00 respectively, but after intervention the experimental and control groups had estimated marginal means of 43.00 and 21.00 respectively. This means the treatment was effective in improving the self-satisfaction towards hearing aids usage.

Discussion

The upshot of Research Question One, Table 1 revealed that students with mild-to-moderate hearing impairment had low level of self-satisfaction towards hearing aids usage before exposure to IPT in both experimental and control groups. After intervention, majority of the students in the experimental group had high level of self-satisfaction towards hearing aids usage. The result of Hypothesis One in Table 2 showed the ANCOVA which reflected that there was a significant effect of IPT on the Experimental group posttest mean score. This implied that the treatment was effective in improving the self-satisfaction amongst students with mild-to-moderate hearing impairment. This result, corroborated with Otana (2018) and Jikukka (2021) which confirmed that self-satisfaction for students with mild-to-moderate hearing impairment is a personal evaluation of benefits derived from each student's own hearing aids usage, and that the evaluation is mostly gotten through a questionnaire, mostly completed by students who used hearing aids. The items on the questionnaire in this study addressed the pleasures and displeasures, satisfactions and dissatisfactions, self-actualization and contentment, self-dismay, discontentment, and disappointments with hearing aids, which are witnessed after hearing aids usage and gave room for self-satisfaction evaluation: which was contentment with personal consummation of hearing aids.

Conclusion

Based on the analysis, interpretation and subsequent findings that emanated from the research question and hypothesis, it's concluded that the use of IPT was found to be a good therapy for changing negative self-satisfaction of students with mild-to-moderate hearing impairment to a positive one. The hypothesis shows that the treatment was effective in improving self-satisfaction amongst students with mild-to-moderate hearing impairment and particularly towards hearing aids usage. In a null shell, the result indicates that IPT changed negative self-satisfaction to positive self-satisfaction of students with mild-to-moderate hearing impairment.

Recommendations

1. National Association for: Psychologists, Sociologists, Rehabilitation Scientists and other relevant professionals should carryout conferences, seminars, workshops and symposiums on the fact that low level of negative self-satisfaction of students with mild-to-moderate hearing impairments can be changed or improved significantly through IPT. This massive campaign would educate, inform and enlighten parents, teachers, communities and stakeholders at large.
2. Parents of students with mild-to-moderate hearing impairment should work on the level of low level of self-satisfaction of students with hearing impairment, especially those who disuse or under-use their hearing aids.

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