



A Delve into the Psychosocial Experiences of Adults with Mild to Moderate Hearing Loss Using Leventhal's Self-Regulatory Model

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ABSTRACT

Hearing loss, whether congenital or acquired is often a life-long disability that hinders the psychological, social, and emotional well-being of the affected people. Existing studies have explored the psychosocial experiences of people with hearing impairment and the coping strategies adopted to deal with the accompanying hardships. The present work aims to study the psychosocial experiences of adults with hearing loss using Self-regulatory model Leventhal as a theoretical framework, the way hearing-impaired people experience wellbeing, cope with their life, create meaning, regulate emotion and how hearing-impaired people transcend from their mundane living and attain happiness. Adults ranging from 30-45 years of age with mild to moderate hearing loss were selected as participants for this research. The participants were then administered the Symptom Checklist (SCL 27), the Subjective Well-Being Scale, the Meaning in Life Questionnaire, the Coping Checklist and the Emotion Regulation Questionnaire. Descriptive statistics and stepwise multiple regression analysis were conducted on the quantitative data. The study has shed light upon the type of coping strategies adopted by hearing-impaired individuals, their nature of emotion regulation and has taken a more positive paradigm to look into the matters that contribute most to their wellbeing.

Keywords: Hearing-impairment, coping, emotion, wellbeing, meaning

INTRODUCTION

Hearing loss is an invisible health condition with important implications on an individual's quality of life. Approximately 5.3% of the world's population (360 million people) suffers from disabling hearing loss; the majority of individuals with disabling hearing loss live either in low or middle-income countries (WHO, 2013). Hearing loss, whether present from birth or acquired later in life, though substantially underestimated and under-treated (Ology et al., 2006), is often a life-long disability that can cause profound damage to the development of speech, language, and cognitive skills in individuals. Thus, hearing loss alters progress in school and subsequent ability to obtain and keep employment (Cook et al, 2006). As a result, it also interferes with an individual's quality of life. Quality of Life encompasses an individual's subjective well-being and health, social participation and satisfaction with functional daily living, their way of coping and the meaning that their life holds. Disabilities such as deafness can impact on the quality of life with a spatial variance to the environment.

Deafness causes communicative issues with vital consequences in the psychological, social, and emotional well-being of affected people.

The deaf community is outlined as an associate entity that shares the common goals of its members and works toward these goals (Padden, 1980). For the most part, the deaf community comprises individuals who have been deaf since birth or early in life (Lane et al., 1996). Some of these individuals prefer oral communication but see themselves as part of the deaf community. Most are deaf individuals who rely on some form of signed communication American Sign Language and identify with the Deaf Culture. They prefer communicating with each other and with others who are not a part of the community using sign language itself.

Since hearing loss tends to disrupt interpersonal communication and to interfere with the perception of meaningful environmental sounds, some individuals experience significant levels of distress as a result of their hearing problems. For example, some may express embarrassment and become critical of the self when they have difficulty understanding others or when they make perceptual errors. Anger and frustration can arise when communicating become a difficulty, and many individuals experience discouragement, guilt, and stress related to their hearing loss. These negative reactions are also associated with reports of negative attitudes and uncooperative behaviours of others (Demorest & Erdman, 1998). However, the association between the degree of hearing

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loss and the psychosocial adjustment people have with that hearing loss per se is not strong (Erdman & Demorest, 1998).

Those with hearing loss are likely to experience a myriad of mental and emotional issues. Psychosocial disturbances such as social stigma, loneliness, low self-esteem, anxiety, and depression have been found to be an issue with the hearing impaired (Shield, 2006). These highlighted psychosocial problems may also lead to a reduction in performance on a job, denial of opportunities or privileges (Béria et al., 2007). Moreover, decreased cognitive functioning are common among those with untreated hearing loss. Added to that a delay in seeking treatment and accepting the condition by not just the individual but his/her family as well might lead to unnecessarily poor quality of life for millions of people.

Although there is no obvious link to psychopathology, it is clear that hearing loss makes it more difficult to cope with the difficulties of life. However, existing literature doesn't elaborate much on what kind of coping strategies individuals with hearing impairment, use to deal with the hardships they face while conducting their everyday lives in a world that is not set up to accommodate them. Coping represents the strategies adopted on the part of the individual to decrease the physical and psychological pain that is related to negative life events and ongoing stressors. There are a variety of different coping responses people use with or without being consciously aware of doing so. Through this work, we aim to take a look at the psychosocial experiences of adults with mild to moderate hearing loss using Self regulatory model (Leventhal, 1992 citation) as a theoretical framework and how hearing-impaired people cope with life experiences and regulate their emotions.

OBJECTIVE

- To explore the psychosocial experiences of adults with mild to moderate hearing loss using the Self regulatory model (Leventhal, 1992) as a theoretical framework
- The way hearing-impaired people experience wellbeing copes with their life creates meaning and regulates emotion.
- To explore how hearing-impaired people transcend from their mundane living and attain happiness.

METHODOLOGY

Sample: Adults ranging from 30-45 years of age were selected as participants for this research. Young adults and Middle adults with mild-moderate hearing loss, as defined as having a mean hearing threshold between 20–70 dB HL in the better ear averaged across 0.25–4 kHz or a unilateral hearing loss (British Society of Audiology, 2011), (N=58) were selected for the present research purpose. Snowball sampling method was used for the present study to approach the participants.

Inclusion criteria: Adults within 30-45 years, mild to moderate hearing loss as diagnosed by audiologists, both male and females and educated up to minimum 10th standard.

Exclusion criteria: Any other congenital physical or psychiatric illness and acquired sensory impairment.

Data collection method: Participants were approached for a face-to-face session for providing their response to the given questionnaires, with the help of a certified sign language interpreter. The research purposes, the methods, participants' rights to withdraw and confidentiality of the personal information were explained to the respondents by the sign language interpreter, and their consent was obtained alongside.

Instruments:

- 1) Symptom Checklist (SCL 27) for psychiatric morbidity screening (Kuhl et al., 2010)
- 2) Subjective Well-Being Scale (Sell & Nagpal, 1992)
- 3) Meaning in Life Questionnaire (Steger, 2006)
- 4) Coping Checklist (Rao et al., 1989)
- 5) Emotion Regulation Questionnaire (Gross & John, 2003)

Statistical analysis: The quantitative data obtained was scored, and statistically treated with the help of Statistical Packages for Social Science (SPSS-version 21). Descriptive statistics and stepwise multiple regression analysis was done with Coping and emotion regulation as predictors and wellbeing and meaning in life as an outcome variable (N=56).

RESULTS

Table 1. Descriptive Statistics of Study Variables

Variables		Mean (n=56)	SD*
Problem Focused Coping	Problem Solving	6.82	1.39
Emotion-Focused Coping	Positive Distraction	9.07	1.61
	Negative Distraction	2.5	1.43
	Acceptance, Redefined	8.46	1.62
	Religion, Faith	4.16	2.41
	Denial, Blaming	5.34	2.05
Problem & Emotion-Focused Coping	Social Support	4.30	.989
Subjective Well Being Inventory		92.18	8.65
Symptom Checklist		20.71	16.62
Meaning in life	Presence	17.95	6.69
	Search	24.79	6.21
Emotion Regulation	Reappraisal	28.68	9.05
	Suppression	18.87	6.00

*Standard deviation

Table 1 shows the descriptive statistics (mean and standard deviation) of coping check-list problem-focused; coping check-list emotion-focused; coping check-list problem and emotion-focused; subjective well-being inventory; symptom checklist; meaning in life; and emotion regulation.

Table 2 shows the regression analysis of coping check-list problem-focused; coping check-list emotion-focused; coping check-list problem and emotion-focused as a predictor; with meaning in life-presence as the criterion. Where, 11.4% of the meaning in life-meaning presence was contributed by the problem-focused coping and 18.2% of the meaning in life - meaning presence was contributed by the positive distraction of emotion focussed coping.

Table 2. Regression table for Dependent Variable Meaning Present (Meaning in Life)

Criterion	Predictor	R	R ²	Adjusted R ²	F	Sig	Co linearity Statistics VIF	Durbin-Watson
Meaning Presence	Problem Solving,	.361	.130	.114	8.090	0.006	1.000	1.620
Meaning Presence	Positive Distraction	.461	.212	.182	7.134	0.002	1.000	1.620

Table 3. Coefficient table for Dependent variable Meaning Present (Meaningin Life)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6.100	4.249		1.435	.157		
	Problem Solving	1.737	.611	.361	2.844	.006	1.000	1.000
2	(Constant)	17.084	6.212		2.750	.008		
	Problem Solving	1.711	.587	.356	2.916	.005	1.000	1.000
	Positive Distraction	-1.192	.508	-.286	-2.346	.023	1.000	1.000

Dependent Variable: Meaning Presence

Table 4. Regression table for Dependent Variable Meaning Search (Meaning in Life)

Criterion	Predictor	R	R ²	Adjusted R ²	F	Sig	Co linearity Statistics VIF	Durbin-Watson
Meaning Search	ER. Reappraisal	.424	.180	.165	11.851	.001	1.076	1.867
Meaning Search	Acceptance Redefined	.544	.296	.270	11.153	.000	1.023	1.867
Meaning Search	Positive Distraction	.597	.356	.319	9.591	.000	1.082	1.867

Table 5. Coefficient table for Dependent Variable Meaning Search (Meaning in Life)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Co linearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	16.437	2.541		6.468	.000		
	ER. Reappraisal	.291	.085	.424	3.442	.001	1.000	1.000
2	(Constant)	28.049	4.588		6.113	.000		
	ER. Reappraisal	.273	.079	.398	3.448	.001	.994	1.006
	Acceptance Redefined	-1.312	.443	-.342	-2.959	.005	.994	1.006
3	(Constant)	21.426	5.355		4.001	.000		
	ER. Reappraisal	.229	.079	.333	2.888	.006	.929	1.076
	Acceptance Redefined	-1.435	.432	-.374	-3.322	.002	.978	1.023
	Positive Distraction	.986	.448	.255	2.202	.032	.924	1.082

Dependent Variable: Meaning Search

Table 6. Regression Table for Dependent Variable Subjective Well-Being

Criterion	Predictor	R	R ²	Adjusted R ²	F	Sig	Co linearity Statistics VIF	Durbin-Watson
Subjective Well-Being	Problem Solving	.269	.072	.055	4.206	.045	1.000	2.005

Table 7. Coefficient Table for Dependent Variable Subjective Well-Being

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Co linearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	80.761	5.680		14.219	.000		
	Problem Solving	1.674	.816	.269	2.051	.045	1.000	1.000

Dependent Variable: Subjective Well-Being

Table 3 shows the beta coefficients and co-linearity statistics of coping check-list problem-focused; coping check-list motion focused; coping check-list problem,emotion-focused and emotion regulation.

Table 4 shows the regression analysis of coping check-list emotion-focused–acceptance redefined and positive distraction, and emotion regulation–reappraisal as predictor and meaning in life–meaning search as criterion. Where 16.5% of the meaning search was contributed by emotion regulation-reappraisal; 27% of the meaning search was contributed by acceptance/redefined of emotion-focused coping, and 31.9% of the meaning search was contributed by positive distraction of emotion-focused coping.

Table 5 shows the beta coefficients and co-linearity statistics of coping check-list emotion-focused –acceptance/redefined and positive distraction; meaning in life and reappraisal of emotion regulation.

Table 6 shows the regression analysis of coping check-list problem-focused coping as a predictor and subjective well-being as a predictor. Where 5.5% of subjective well-being were contributed by problem-solving focused coping.

Table 7 shows the beta coefficient and co-linearity statistics of problem-focused coping and subjective well-being.

DISCUSSION

One of the major foci of this study was on the coping behaviour of the congenital and acquired hearing impaired individuals, which was measured by using the CCL (coping check-list). Coping strategies, as modifying factors between stressful events and the perceived handicap, are important aspects of the interaction between the hearing impaired person and his environment. Hallberg and Carlson (1991) reported various coping strategies used by hearing-impaired individuals in demanding auditory situation, with individual preferences for either controlling or avoiding behaviour. Individual focusing on controlling behaviour might demonstrate a preference for problem focussed coping and acceptance; whereas, individuals prone to avoiding behaviour might take a liking of distraction and denial as coping strategies (Edwards & Cooper, 1988). As the items of problem focussed coping such as– “Anticipate probable outcomes and mentally rehearse them” or, “Come with a couple of different situation to the problem” taps the cognitive ability to focus on a goal-directed outcome of a problem (Tiwary & Shukla, 2004). Thus, individuals using problem solving, acceptance and/or redefinition as a coping strategy tends to have a comprehensible life goal (Pstonjee, 1992). Naturally, a comprehensible long term goal or life goal can generate meaning in their life (Edwards & Holden, 2001). Correspondingly in the present study regression analysis confirmed that problem-focused coping has successfully predicted the presence of meaning in an individual's life. From the result of regression analysis, it can be said that for hearing impaired individuals this assumption did not provide any irregularities, as participants who reportedly use problem focussed coping strategies have also revealed the presence of meaning in their life.

On the other hand, the coping strategies such as negative distraction, denial/blaming or religion/faith did not contribute to meaning in life. The items such as–“Try to feel yourself better by taking drugs (mood-elevating)”, or “Wear a lucky, charm or amulet” indicates avoiding behaviour, which can provide temporary relief but fails to provide a long term solution of the problem (Moos, 1986). Unsurprisingly the result indicated that avoiding problems failed to provide a successful path towards any life goal.

Hence, the present study presumes, as the individuals focusing on problem-solving and problem focussed coping tend to have a clearer scheme for managing their problems, which might have contributed to developing the meaning of life.

The regression analysis has also reported that emotional regulation- reappraisal has successfully contributed to meaning in life, whereas emotion regulation suppression did not contribute to predicting meaning in life, in the case of hearing-impaired individuals. As previous studies imply meaning in life to be needed for belongingness, value, purpose, efficacy, and self-worth (Baumeister, 1991). As previously discussed the domains of purpose and efficacy can derive from achievement and coping, whereas belongingness, value and self-worth are more inclined towards social functioning and social interaction of the individuals. In social life, the maintenance of social bonds is the most critical motive. Bonding depends on language, including spoken or signed language, body language and so forth. These bonds are tested and renewed in interaction. When bonds are threatened, intensive emotions are generated (Scheff, 1997). This perspective implies a close correlation between the capacity to communicate and interact, on the one hand, and emotions, on the other. When the capability to communicate is affected by a hearing loss it is conceivable to assume that this can generate negative emotional effects (Gagne et al., 1990). As a result suppressing emotions by “keeping emotions to self” or, “controlling emotions by not expressing them” certainly failed to contribute in generating meaning in life.

Emotions are seen as emergent effects of interaction and not as properties which a person possesses or not. This means that they exist only in encounters. Emotions are also intentional in the sense that they are about something (Danermark, 1998). When people can interact in a synchronic way the rituals generate feelings of solidarity (Collins, 1988, p. 202), hence, “expressing positive” or “negative emotions” can manifest the social bond and cohesion. The social connection, belongingness and self-worth can be actively modified by redirecting the way of perceiving the emotion in a way that can facilitate positive effect (Jakes, 1988). The reappraisal precisely taps this phenomenon with the items mentioning - “When I’m faced with a stressful situation, I make myself think about it in a way that helps me stay calm” or, “When I want to feel more positive emotion, I change the way I’m thinking about the situation”. As a result, reappraisals of emotional regulation manage to contribute in generating meaning in life.

Emotions are elicited as a response to some significant internal and external events (Schacter et al., 2011). On one

hand, the multidimensional nature of emotion adds meaning and texture to one's life and on the other, its regulation is necessary for the betterment of one's mental health. Emotion regulation is a process by which people change the experience or expression of their cognitive reappraisal and expressive suppression (Gross & John, 2003).

In our study, we found that the individuals with hearing impairment have a tendency to suppress their emotions and this instead increases certain psychiatric symptoms like depressive, dysthymic, vegetative, agoraphobic, sociophobic and symptoms of pain. Clausen (2003) has found that higher the degree of hearing loss more is the mental health problems experienced. Tambs (2004) has also found that there exists a positive correlation between the degree of hearing loss and mental health problems, especially problems related to depression and self-esteem. In the same line of discussion, Kvam et al. (2007) have found that deaf individuals show significantly more symptoms of depression and anxiety when compared to hearing individuals. They attributed the cause to various bitter experiences they face from childhood due to the associated stigma and discrimination related to deafness.

Thus, several studies have discussed the linkage between hearing impairment and mental health problems. By delving deep into the issue, it is noticed that there is an increased risk when the individuals having hearing impairment fail to express their emotions and instead suppress it. Suppression of emotion implies the act of masking bodily and facial expressions with the intention to conceal one's present emotional status (Gross, 1989). The deliberate attempts to repress emotion have a profound effect on the physical and mental health of an individual. Decades back, Sigmund Freud had discovered links between the repression of emotion and physical symptoms, similarly more recently scholars (e.g., Abbass, 2005; Appleton & Kubzansky, 2014) have likewise acknowledged that (dys)regulation of emotions is strongly associated with health disorders. Similarly, the regression analysis of the present study has shown that the hearing-impaired individuals who use the emotion-regulation strategy of suppression show significantly more somatic symptoms: depressive, dysthymic, vegetative, agoraphobic, sociophobic and symptoms of pain. Rieffe (2012) in his study has found that deaf children's emotion regulation strategies seemed less effective than those of their hearing peers. It is not because they are unable to recognize emotions but because they tend to use an avoidant tactic so as to diminish the negative impact of a situation and thus result in suppression of their emotions. Hence, the present study aligns with the above researches focusing on the usage of the strategy of emotional suppression by the hearing impaired individuals which in turn give rise to certain psychosomatic symptoms.

The regression analysis of the present study on hearing-impaired individuals has not just confirmed that problem-focused coping is a successful predictor for the presence of meaning in their lives but also successfully predicts the existence of subjective well-being in their lives.

Individuals who engage in problem-focused coping strategies aim to target the cause of stress and then tackle the problem by reducing or removing the source of the stressor. Thus, the active coping style or problem-focused or approach-oriented coping

refers to behaviours directed at altering or dealing with the problem causing distress (Frydenberg & Lewis, 1999; Seiffge-Krenke, 1995). Therefore, individuals using such coping strategy remove themselves from the stressful situation and this consequently enables them to increase their subjective well-being. Andersson and Hägnebo (2003) in their study have found that hearing-impaired individuals more often use active problem solving and self-controlling coping strategies than any other coping strategies. Following studies have found that active and problem-focused coping (Folkman & Lazarus, 1985; Seiffge-Krenke, 1993; Seiffge-Krenke & Stemmler, 2003) were related to better adjustment to major life events. Research evidence has shown that problem-focused coping strategies are associated with an individual's well-being (Tomás et al., 2012). Ed Diener (1984) had viewed subjective well being as an amalgamation of three distinct components, that is, frequent positive affect, infrequent negative affect and cognitive evaluations such as life satisfaction (Tov & Diener, 2013). Subjective well being not just limits itself to these three components but also encompasses happiness. Rostami et al. (2014) in their study on deaf adolescents have found that positive thinking skills had a positive effect on their reported levels of happiness. In another study by Kushalnagaretal. (2011) the hearing impaired youths were found to feel positive about many aspects of their lives and good communication with parents was found to be a strong predictor for their better quality of life. Thus, from the above-mentioned researches, it has been seen that hearing-impaired individuals not only report about using problem-focused coping strategy but is also seen to have high levels of happiness and good quality of life and these all successfully predict their subjective well-being.

In recent years, it has been seen that a positive psychology stance has been taken for researches on hearing-impaired individuals as well. This new wave of research has not just enriched but also broadened the scope of understanding the hearing impaired individuals with a positive psychology mindset (Szarkowski & Brice, 2018). Similarly, this present study on the congenital and acquired hearing impaired individuals has also taken a more positive paradigm to look into the matters that contribute most to their wellbeing.

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