

Effect of Creativity on Happiness in Hearing Impaired Adolescents

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ABSTRACT

Indicators and predictors of adolescent's mental health are essentially connected with not only the present but future health and health-related behaviors also (Galambos & Costigan, 2003). One of the factors that can have a considerable effect on individual's well-being is his/her creative side. Creativity allows an individual to put down his/her thoughts and experiences in a constructive manner. Putting one's emotions and thoughts in a creative manner where one can express without words helps hearing impaired individuals to have an inner satisfaction resulting in subjective happiness. The present study investigated the effect of creativity on happiness among hearing impaired adolescents studying and living in special hearing-impaired school (Patiala school of Hearing impaired and Blind, Saifdipur) in Patiala district. 55 hearing impaired adolescents filled the questionnaires; out of which 35 adolescents were further selected on the basis on high and low creativity scores. Their age ranged from 12-19 years. The study revealed how creativity can impact factors like positive effect, life satisfaction and interpersonal relationships which can play an imperative role in determining the happiness in hearing impaired adolescents.

Keywords: *Hearing Impaired, Creativity, Happiness*

Adolescence
The word adolescence is derived from the Latin word "adolescere" which means "to grow up" or "to grow to maturity" (Lerner & Steinberg, 2009). This period involves several biological, cognitive and psychosocial changes and during adolescence, youth are faced with difficulties that are cognitive, relational and biological in nature (Lerner et al., 1999; Williams et al., 2002; Susman & Don, 2009). The biological, cognitive psychological and social changes that characterize the transition from the adolescent period to adulthood are as challenging for individuals with developmental disabilities as they are for typically developing individuals as individuals with developing disabilities may chronologically reach adulthood without the same degree of personal independence and autonomy.

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Hearing Impairment

Initially it appears simple to understand the concept of hearing impairment as it can be diagnosed through medical procedures. But the impact of being hearing impaired is larger than the problems related to hearing difficulties only. Over 5% of world's population (360 million) has disabling hearing loss (328 million adults and 32 million children). Hearing loss is the second most common cause of years lived with disability (YLD). Approximately, 90% of hearing-impaired children are born to hearing parents and it is estimated that 80% of these are unable to effectively communicate with their hearing-impaired children (Ridgeway, 1993). Individuals with HI vary largely in their communication and social skills due to their nature and degree of hearing loss, proper assessment, time of intervention and family environment. It also brings many social and emotional difficulties along the communications problems (Kirk, Gallagher, & Anastasiow, 2003).

Hearing Impairment in India

Going through the hearing impaired history of India, of particular interest is the article "the hearing impaired and the blind in India." This article was published in the silent worker, vol. 33 no. 2 (November 1920). It is photo-illustrated and has interesting historical facts, such as in 1920 there were 10 schools for the hearing impaired in India. At present in India, 63 million people (6.3%) suffer from significant auditory loss. Four in every 1000 children suffer from severe to profound hearing loss. With over 100,000 babies that are born with hearing deficiency every year. The estimated prevalence of adult-onset hearing impairedness in India was found to be 7.6% and childhood onset hearing impairedness to be 2%. The National Sample Survey 58th round (2002) surveyed disability in Indian households and found that hearing disability was the 2nd most common cause of disability and top most cause of sensory deficit. In urban areas, loss was 9% of all disability and in rural areas, it was 10%. It was estimated that the number of person with hearing disability per 100,000 persons was 291; it was higher in rural (310) compared with urban regions (236). In the same survey, about 32% of the people had profound (person could not hear at all or could hear only loud sounds), and 39% had a severe hearing disability (person could hear only shouted words, Singh V, 2015).

Creativity Among Hearing Impaired

According to Torrance (1988) "Creativity is a process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on; identifying the difficult, searching for solutions, making guesses, or formulating hypothesis and possibly modifying them and retesting them; and finally communicating the results". The creativity allows an individual to put down his/her thoughts and experiences in a constructive manner. Also, the same person might find an inspiration in the pain of negative emotions, comfort in writing about these experiences, and excitement in the process of creation (Averill & Thomas-Knowles, 1991). As hearing impaired children are handicapped in language acquisition and subsequently in abstract thinking and perceptions, one might assume that they may channel their energies into development and expression of concrete activities and perception. Researchers, equating "conceptual" thinking with an over-all capacity to categorize, have found that hearing impaired children are just as capable of categorizing with respect to perceptual, concrete material as hearing subjects of the same age and IQ but less able to categorize "verbally" (Kohl, 1967). In addition, hearing impaired children between 7 and 12 yr. perform like normally hearing children from 3 to 6 years of age. Although the hearing impaired is markedly lagging in scholastic development, one might assume that they may perform equally or better in nonverbal measures of creativity. Goetzinger, et al. (1966) reported that the responses of the hearing impaired to a Structured

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Objective Rorschach were unique and that they exhibited a high degree of nonconformity. Their lack of communication prohibits normal socialization processes and adherence to group norms and expectations, consequently, the hearing impaired may be more independent in thought and actions in some areas.

Because of language acquisition difficulties, (Kohl, 1967) found hearing impaired children from 11 to 17 yr., used more fixed forms of language, avoiding elliptical forms and preferring simple fixed expressions and concrete actualities. In another study, Nass (Kohl, 1967) found the hearing impaired more concerned with the concrete outcome of actions rather than the motives or intentions involved. It was concluded that the hearing impaired are more oriented toward the concrete. Goetzinger, et al. (1966) found that the scores of the hearing impaired were inferior to those of hearing adolescents in theoretical function and inductive reasoning but higher on structuring. The responses from the hearing impaired were "unique" and "rare" and exhibited a higher degree of nonconformity.

The importance of compensation for adolescents with developmental disabilities was also addressed specifically by Vygotsky (Rieber & Carton, 1993) in his study of "defectology" the Russian term in the 1920s for the study of disabilities. Vygotsky maintained that children with developmental disabilities adopt compensation processes along a "roundabout path" that is, they adapt to developmental challenges by constructing different approaches or developing different goals. In this way, the individual with a disability "transforms the minus of the handicap into the plus of compensation".

Furth (1966) adopted Piaget's theory of human development and argued that cognitive ability of hearing and hearing impaired people and their developmental patterns are essentially similar. He proposed that babies show evidence of mental activity and some forms of thinking before they learn to speak. Therefore, they exhibit cognition without language. Whereas, Myklebust (1964) proposed that the cognition of hearing impaired and hearing people was different in some important aspects. Lacking access to sounds, hearing impaired individuals exist in a more isolated world than their hearing peers. The hearing individual is exposed to simultaneous experiences of vision and hearing. For instance, many hearing children may concentrate on their own actions and their effects on the surrounding environment, and they are open to intrusions from the sounds of others. On the other hand, hearing impaired individuals are excluded from such sounds and live in a world necessarily more centered on the self and the effects of their own activities.

Happiness in Hearing Impaired

Happiness, or "subjective wellbeing", a term that is used synonymously, refers to the subjective assessment of quality of life or, in other words, the way people evaluate their lives. These evaluations can be both cognitive and affective, and refer to life as a whole and/or to specific domains of it, such as work and social life (Diener, Suh, Lucas, & Smith, 1999). Fredrickson's (2001) 'broaden and build theory' suggests that the experiencing of positive emotions expands people's momentary thought-action repertoires and builds up personal resources, including intellectual resources.

Research studies have indicated that hearing impaired children have impaired emotional competence because of their impaired emotion socialization secondary to their limited communication skills (Rieffe & Meerum Terwogt, 2006), though emotional competence involves a broad complexity of elements (Saarni, 1999), including awareness of one's own and others' emotions and the regulation of emotions. A study on hearing impaired

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adolescents showed that they could be happy, intelligent, and fully functioning and contributing members of society, provided there was effective language and communication at home and school (Sheridan, 2001).

Hearing impaired children's resilience is a major component influencing their subjective wellbeing. Supportive environments at home and at school, in which they can assert themselves as hearing impaired children, provide them with a secure space to develop creative coping strategies to deal with challenges in their way. Cambra (2005) compared the feelings and emotions of adolescents with HI using a sentence completion task examined their feelings, preferences, desires for change as well as their perception of the consequences of being hearing impaired. The results indicated non-significant differences between the hearing impaired and hearing adolescents in terms of their ability to understand or express their feelings of sadness or when expressing what they like most. However, significant differences were found in what made them happiest and the things they would like to change. Degree of hearing loss, gender, and age were related to these differences in understanding their feelings. The hearing impaired adolescents are happy when they receive gifts and take part in recreational activities; in contrast, the hearing adolescents are happier to have good relationships with their friends and family, and when social problems are solved and there is peace in the world.

Constructs related to happiness and well-being are mental health and health-related quality of life (QoL). A few studies have focused on well-being as a function of hearing status. Moeller (2007) concluded in a review that hearing impaired children's well-being (health-related QoL) was poorer than that of hearing peers. The same was found for 85 Australian 7- to 8-year-old hearing impaired children, whose QoL was judged by their parents (Wake, Hughes, Collins, & Poulakis, 2004a; Wake, Hughes, Poulakis, Collins, & Rickards, 2004b). In a Dutch study, 238 hearing impaired 4 to 18-year-old students had higher parent-reported emotional problems than their hearing peers (Van Eldik, Treffers, Veerman, & Verhulst, 2004). In the same study, hearing impaired 12 to 18-year-old children also reported more anxiety and depression than the 4 to 11-year-old ones. The issues in the life of hearing impaired call for research in this area. The present study tries to look at this perspective through creativity and how it affects the happiness among hearing impaired adolescents.

Objective

To study the effect of creativity on happiness among hearing impaired adolescents.

Hypothesis

- Highly creative adolescents would be significantly higher on positive affect.
- Highly creative adolescents would be significantly higher on life satisfaction.
- Highly creative adolescents would be significantly higher on interpersonal relationships.

METHODOLOGY

Participants

A total of 55 Hearing impaired adolescents studying and living in special hearing impaired schools (Patiala school of hearing impaired and blind) in Patiala district were selected for the present study. All the participants were given Torrance Test of Creative Thinking-Figural Form A (TTCT; Torrance, 1998). Out of these 35 adolescents were divided on the basis on high and low creativity scores. Their age ranged from 12-19 years and they were students of grade 6-12. Prior permission of the head of the institution and due consent of the participants

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and their parents was taken before the research work. Further, the participants were given Chinese Happiness Inventory; Lu and Shih (1997). All the participants were treated with sensitivity and ethical considerations laid down by APA were taken care of.

Instruments

- 1. TORRANCE TEST OF CREATIVE THINKING-FIGURAL FORM A (TTCT; Torrance, 1998):** TTCT uses three picture-based exercises to assess five mental characteristics: fluency, originality, elaboration, abstractness of titles, and resistance to premature closure. Activity I asked the participants to construct a picture using a pear shape provided on the page as a stimulus. The second activity required completion of incomplete figures. Activity III asked the participants to create pictures using two parallel lines.
- 2. CHINESE HAPPINESS INVENTORY (Lu & Shih, 1997):** This inventory consists of 48 statements (eastern and western (based on oxford happiness inventory). Each item of the CHI contains a group of four statements and each statement represents a particular level of happiness coded as 0, 1, 2 and 3; for example, 'I do not feel happy' (0), 'I feel fairly happy'(1), 'I am very happy'(2) and 'I am incredibly happy'(3). The scores were given before the statement ranging from 0 to 3. The minimum and maximum Happiness scores can be obtained by a subject from 0 to 144 respectively. The chronic alpha of this inventory is 0.95.

RESULTS AND DISCUSSION

Table No. 1 Means, SDs and F-ratios for positive affect in relation to high and low creativity.

| P.A. | N | Mean | Std. Deviation | Std. Error |
|-----------------|----|-------|----------------|------------|
| High Creativity | 20 | 42.90 | 4.06 | 0.91 |
| Low Creativity | 15 | 43.00 | 3.91 | 1.01 |
| Total | 35 | 42.94 | 3.94 | 0.67 |

Table No. 2 Analysis of Variance summary

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|----|-------------|-------|--------|
| Between Groups | .086 | 1 | 0.086 | 0.005 | .942ns |
| Within Groups | 527.800 | 33 | 15.994 | | |
| Total | 527.886 | 34 | | | |

The results of table no. 1 showed that mean values of adolescents high on creativity (M=42.90) do not differ much from adolescents low on creativity (m=43.00). The ANOVA also shows that there is no significant difference between high and low creative adolescents on positive affect. The review has a mix literature in context to the same. While positive affect is advantageous in the early stages of idea production, as one nears the end of the process, negative affect seems to be of more help (Kaufman and Vosburg, 2001). The possibility that negative affect might boost creativity in normal populations is suggested by the "mood-as-input" model of Martin and his colleagues (Martin et al., 1993). This model posits that people use their current mood as an informational cue, with positive mood signaling that all is well, and negative mood signaling that something is amiss in the situation. Intense negative emotions can create powerful self-reflective thought and perseverance, leading to increased creativity (De Dreu, Baas, & Nijstad, 2008; Kaufman & Baer, 2002; Verhaeghen, Joormann, & Khan, 2005; Isen, 2000). Kaufman and Vosburg (2002) found that subjects in a negative mood performed better on tasks involving the facilitation of insight, as compared to those in a positive mood. Negative mood can enhance

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creativity by eliciting focused attention and promoting analytical thought (George and Zhou, 2001; Kaufman, 2003; Schwartz, 1999). Furthermore, negative affect evokes strong introspective and perseverant thinking which facilitates creative thought (Baas, De Dreu and Nijstad, 2008). Negative affect has also been shown to enhance problem finding ability, which is an important first step of the creative process (Csikszentmihalyi, 1999).

Table No.3 Means, SDs and F-ratios for life satisfaction in relation to high and low creativity.

| L.S. | N | Mean | Std. Deviation | Std. Error |
|-----------------|----|-------|----------------|------------|
| High Creativity | 20 | 37.10 | 5.56 | 1.24 |
| Low Creativity | 15 | 37.20 | 7.12 | 1.84 |
| Total | 35 | 37.14 | 6.18 | 1.04 |

Table No. 4 Analysis of Variance summary

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|----|-------------|------|--------|
| Between Groups | .086 | 1 | .086 | .002 | .963ns |
| Within Groups | 1298.200 | 33 | 39.339 | | |
| Total | 1298.286 | 34 | | | |

Table no. 4 shows that there is no significant difference between high and low creative adolescents on the dimension of life satisfaction. Positive psychologists have suggested that activities are most likely to improve our well-being when we experience “person-activity fit” in other words, when the activity is well-matched to our personality. For example, if you are a social person, you may benefit more from art activities done in a group. If you crave novelty, you may want to work on a variety of projects; whereas if you crave consistency, you may want to work on 1-2 familiar projects. According to Cognitive Tuning Theory (Schwarz, 1990), a person may have lower criteria of satisfying in a positive mood state than in a neutral or a negative mood state. A positive mood state signals that a person is in a satisfactory position. Consequently the participant may not be motivated to exert extra cognitive effort. Thus, in a creative task, participants may produce fewer ideas because they are more rapidly satisfied by their initial ideas. In contrast, a negative mood state indicates implicitly that there is a problematic situation and that some extra effort is needed in order to return to a neutral situation.

Table No.5 Means, SDs and F-ratios for life satisfaction in relation to high and low creativity.

| I.R. | N | Mean | Std. Deviation | Std. Error |
|-----------------|----|-------|----------------|------------|
| High Creativity | 20 | 20.75 | 2.63 | 0.59 |
| Low Creativity | 15 | 21.87 | 2.95 | 0.76 |
| Total | 35 | 21.23 | 2.79 | 0.47 |

Table No. 6 Analysis of Variance summary

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|----|-------------|-------|--------|
| Between Groups | 10.688 | 1 | 10.688 | 1.391 | .247ns |
| Within Groups | 253.483 | 33 | 7.681 | | |
| Total | 264.171 | 34 | | | |

Table no. 6 shows that the main effect of creativity on interpersonal relationships was not significant but the mean differences show that adolescents high on creativity are low on interpersonal relationships (M=20.75) in comparison to adolescents high on creativity

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(M=21.87). Creativity and interpersonal relationships have not always had a positive relationship as a creative person tends to be a little introvert. The presence of a child with a disabling condition, such as a hearing impaired/hard-of-hearing (D/HH) child, may alter the family climate and its interpersonal relationships, especially when the parents are hearing, thus affecting the attachment and Social interaction processes as well (Leatherman-Sommers, 2000; Marshak, Seligman, & Prezan, 1999; Shulman & Rubinroit, 1987). Results from a study of research scientists suggest that weaker ties are generally beneficial for creativity, whereas stronger ties have neutral effects.

CONCLUSION

Adolescents with hearing impairment have lot of threat to their social-emotional well-being and self-identity formation, and are at risk for psychosocial deficits related to cognition, isolation, and bullying. As most of hearing impaired adolescents spend large part of their life in hearing impaired schools they may lack communication with parents and outside world. The above studies show what factors can play an important role in determining the happiness in hearing impaired adolescents specifically how creativity can plays a significant role. Further study in this area can help us to understand the scenario of hearing impaired adolescents in a better way and can lead us to the other factors that can play a part in happiness of these adolescents.

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Conflict of Interest

The author declared no conflict of interest.

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