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**Psychology of subculture: Phenomenology and Contemporary
Tendencies of Development**

**PSYCHOLOGICAL ADAPTATION OF DEAF AND HARD-OF-
HEARING STUDENTS**

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Abstract

In the context of the ongoing identity-related discussion we studied the personality characteristics in deaf and hard on-hearing students, their coping and other factors associated with deafness depending on the students' self-identification type. We studied 137 deaf and hard on-hearing students in different educational situations. The results of analysis showed that the degree of hearing loss played a crucial role. People with smaller violations, and attributing themselves to the "world of the hearing" had good personal resources, actively used strategies, problem-solving, acceptance of responsibility, positive reevaluation, however, they were less emotional, and people with more severe loss, who identified themselves with the deaf culture and using only sign language, lived in a specific "deaf environment" that does not test their self-esteem. "Bicultural affiliation" was the most effective in terms of adaptation. They were distinguished by good mental health, a wide coping repertoire connected with the experience of living "for the deaf among the hearing and among the deaf". The lack of belonging to certain culture (marginality) leads to personality disintegration and disadaptation: deaf and hard-of-hearing students with marginal identification had a lower level self-esteem, worse psychological health and personal resources, and the lowest level of extroversion, self-confidence and life satisfaction.

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Keywords: Deaf, identity, acculturation, coping, marginality, biculturalism.



1. Introduction

Discoveries, made in medical and technological fields (newborn hearing screening, cochlear implantation, improvement of hearing aids), modernization of special education (acoustic support, sign and oral education, inclusive education), as well as changes in the language and socio-cultural spheres (development and recognition of sign language and deaf culture in many countries) significantly expanded the opportunities for education and socialization of deaf and hard-of-hearing people, as well as the formation of their identity (Bat-Chava, 2000).

For psychological and social adaptation of the deaf and hearing impaired cultural and social background, such as acculturation and learning conditions are of great importance. Although these processes are interconnected, but there is not always a direct correlation between them. The answer to the question of where the deaf or hard-of-hearing will feel better is controversial, as you have to take into account psychological price (lower self-esteem, stigmatization) he will have to “pay” while studying among hearing peers.

Efforts to integrate the deaf into the society of hearing have a positive impact when these people can maintain their connection with the world of the deaf for emotional and social support. Identity has become regarded as a specific psychological resource (Bat-Chava, 1994; Glickman & Carey, 1993; Johnson & Erting, 1989; Leigh, Marcus, Dobosh, & Allen, 1998; Maxwell-McCaw & Zea, 2011).

2. Problem Statement

In the early 1990s attracted a lot of attention "theory of cultural identity development" of deaf people (Glickman & Carey, 1993). In accordance, hearing loss has been presented in terms of cultural differences. New paradigm identified four types of cultural identity development: identification (belonging) with the culture of hearing, identification with the culture of the deaf, marginality (“confusion” or denial of their belonging to the culture of the deaf and hearing) and, finally, the most desirable is double identification (biculturalism). In this, the process of developing identity may not necessarily be linear and depend on the circumstances of hearing loss, type of education, communication in the family and other factors (characteristics of personality, context of individual biography, etc.) which requires further study.

Of particular relevance is the comparison of different types of acculturation, the allocation of the most effective types in terms of psychological and social adaptation. This will determine the value of the "cultural anchor" for a deaf person.

3. Research Questions

It was in conceptual context in which we conducted a study, the main hypotheses were the following assumptions:

1. Acculturation is a special resource for a deaf person, and lack of formation of identity is a “marker” of their personal disintegration and psychological disadaptation.

2. Marginality or lack of “deaf”, “hearing or bicultural” identity in deaf population is caused not only by factors related to deafness (degree of hearing loss, type of school and communication in family), but also by psychological factors — characteristics of personality and coping, mental health and stigma, that impede their integration into a particular subculture.

3. More pronounced hearing defect is associated with fewer resources for developing constructive coping and increases the risks of self-stigmatization and psychological disadaptation among deaf students in inclusive education.

4. Purpose of the Study

Objectives of the study:

1. Definition of type of self-identification among deaf and hearing impaired students studying in different educational conditions.
2. Identification of personal, environmental and behavioral factors, which influences on psychological well-being and stigmatization to create the most favorable conditions for their development and self-realization in an educational institution.
3. Assess the influence of factors associated with deafness (degree of hearing loss, type of communication at home, type of school) on self-identification, psychological adaptation (mental health, coping) of deaf and hard-of-hearing students.

5. Research Methods

Participants:

The study involved 137 deaf and hard-of-hearing students (54 male and 81 female) aged from 18 to 45 years - 40 students of the Interregional Rehabilitation Center for People with Hearing problems/College (St. Petersburg), 25 students of the Herzen State Pedagogical University of Russia (St. Petersburg), as well as 72 students of the Kazan National Research Technological University named after A.N. Tupolev.

32 respondents (23.4%) were aged 17–20 years, 81 respondents (59.1%) - aged 21–25 years, 24 (17.5%) - aged 26 years and older. 31 respondents (22.6%) rated their hearing loss (without hearing aids) as moderate, 54 (39.4%) as severe, and another 52 (38%) as deep.

Measures:

Modified questionnaire “Self-assessment and coping strategies” (Jambor & Elliot, 2005);

Scale of self-esteem (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995);

“BigFive” (McCrae & Costa, 1997);

Trier Personality Questionnaire - TRF (Becker, 1989);

Ways of Coping Questionnaire -WCQ (Folkman & Lazarus, 1988);

Modification of the self-stigma scale (Mikhailov, 2008).

Assessment of the type of self-identification was carried out using the “World of the Deaf” and “World of the Hearing” scales (Jambor & Elliot, 2005). Classification by one of the four types of acculturation was carried out using the median for each scale. Those who received scores below the median on both scales were qualified as “marginals”. Those who had scores higher than the median on both self-identification scales were qualified as “biculturalists”.

As a result 38 (27.8%) rated themselves as belonging to the culture of hearing, 47 (34.3%) - as belonging to the culture of the deaf, 21 (15.3%) - appeared to be "marginal", and 31 (22.6%) - “bicultural”

6. Findings

One of the research hypotheses was confirmed: the process of acculturation formation was affected by the conditions of socialization and education (in this very case – school type, identified according to the intensity of defect). Most of the participant who identified themselves with the “World of hearing” studied at the schools for the hearing impaired students (65%) or general education schools (21,1 %), while those, identifying themselves with the “World of deaf” – at the residential schools for deaf students (59,6%) or at the schools for the hearing impaired students (34%).

“Marginal” graduates were found among the graduates of all school types, but the majority was from the residential schools for deaf students or the schools for the hearing impaired students (Table 1). Thus, residential specifics of school education affected students’ formation of the identification with the culture of hearing or deaf people only in part.

Table 01. Distribution of the sample by the type of school

Type of school	Acculturation				Total
	«Hearing»	«Deaf»	Marginality	Biculturalism	
General education school	8	3		6	21
	21,1%	6,4%	19,0%	19,4%	15,3%
School for the hearing impaired students	25	16	8	11	60
	65,8%	34,0%	38,1%	35,5%	43,8%
Residential school for deaf students	5	28	9	14	56
	13,2%	59,6%	42,9%	45,2%	40,9%
Total	38	47	21	31	137
	100,0%	100,0%	100,0%	100,0%	100,0%

Verification of the other research hypothesis that suggested effects of personality characteristics, types of communication, coping, degree of hearing loss on formation of self-identification type revealed the following specifics (Table 2):

- Self-esteem of “marginal” students was lower than that of bi-cultural students; besides people with marginal type of self-identification were less prone to use “positive reappraisal” coping. Marginal participants compared to one’s with bi-cultural affiliation demonstrated lower levels of extraversion, self-consciousness, agreeableness, worse mental health and lower sense of self-worth/confidence.

- Marginal participants also had the most reduced personality resources compared to other groups. At the same time marginal participants as well as non-hearing affiliating themselves to the society of deaf people reported the highest degree of hearing loss both with and without the device.

- Those who identified themselves with the world of hearing more often used such coping strategies as “accepting responsibility”, “planning problem solving”, “distancing” and “positive reappraisal” rather than those who consider themselves part of the deaf world.

- Non-hearing, identifying themselves with the society of deaf used coping strategies “positive reappraisal” and “distancing” less often than bi-cultural participants and had higher scores on extraversion than marginal subjects.

Table 02. Coping and characteristics of personality depending on the type of cultural identification

Parameters	Type Of Acculturation				Significance		
	«Hearing(I) N=38	«Deaf» (II) N=47	Marginality (III) N=21	Biculturalism (IV) N=31	Anova		Scheffe
	M±Σ	M± Σ	M± Σ	M± Σ	F	P	
Personality Characteristics							
Self-Esteem	28,39±4,004	28,43±2,788	26,48±2,542	28,97±3,209	2,69	,049	P III-IV=,064*
Extraversion	26,34±5,069	27,21±4,154	23,86±6,085	27,81±3,894	3,367	,021	P II-III=,065* P III-IV=,035
Conscientiousness/ Organized	29,42±5,736	30,83±4,589	27,86±4,82	31,52±4,596	2,837	,041	P III-IV=,084*
Agreeableness	34,0 ±4,243	33,79±3,243	31,52±4,986	35,1±4,053	3,366	,021	P III-IV=,022
Emotional Stability	24,39±5,102	27,43±5,111	25,52±7,146	26,48±5,421	2,23	,088*	
Personality Resources	30,05±5,125	29,21±4,592	25,0±8,087	30,26±5,68	4,511	,005	P I-III=,015 P II-III=,048 P III-IV=,015
Psychological (Mental) Health	57,42±7,31	57,53±6,189	53,48±6,794	59,26±6,25	3,259	,024	Piii-IV=,026
Sense Of Self-Worth	31,32±4,281	30,85±5,393	28,24±3,974	31,61±4,224	2,601	,055*	P III-IV=,091*
Empathy/Love Capacity	32,74±3,874	31,19±3,261	30,9±4,603	33,16±4,172	2,634	,053*	
Coping							
Distancing	57,57±14,689	48,91±13,295	53,13±13,593	58,09±12,99	3,984	,009	P I-II=,042 P II-IV=,042
Self-Control	52,09±17,055	44,53±15,864	42,81±13,008	50,37±18,372	2,384	,072*	
Acceptance Of Responsibility	58,12±17,359	47,76±14,514	52,57±15,554	50,7±14,709	3,21	,025	P I-II=,029
Planning Of Solving The Problem	57,68±16,746	47,75±15,031	48,46±13,698	54,93±18,936	3,263	,024	P I-II=,055*
Positive Reappraisal	59,07±14,576	49,31±12,97	44,92±13,106	58,45±16,687	6,976	<,001	P I-II=,024 P I-III=,006 P II-IV=,06* P III-IV=,013
Degree Of Hearing Loss							
Degree Of Hearing Loss (Without Device)	2,84±0,754	3,36±0,705	3,52±0,68	2,97±0,752	6,116	,001	P I-II=,016 P I-III=,009 P III-

							IV=,067*
Degree Of Hearing Loss (With Device)	1,61±0,595	2,4±0,851	2,38±0,921	2,23±0,845	8,156	<,001	P I-II<,001 P I-III<,007 P I-IV=,019

*Note: p - tendency

Correlation analysis revealed following patterns (Table 3):

- Students who identify themselves with the culture of hearing people are younger, have less degree of the hearing loss, demonstrate good academic achievement and mainly were graduates of the schools for the hearing impaired students. They use such coping strategies as “planning problem solving”, “accepting responsibility”, “positive reappraisal”, they also had lower emotional stability.

- Subjects, who identified themselves with the culture of deaf people had more severe hearing loss, graduated mainly from residential schools for deaf students (not the general educational school), often use sign language and were not “bilinguals”. “Positive reappraisal”, “planning problem solving”, “accepting responsibility” and “distancing” were not common strategies of coping with difficult situations for these students.

- Marginal students had low levels of self-esteem and extraversion, decreased sense of self-worth and more pronounced depressive symptoms. They had reduced conscientiousness, agreeableness, personality resources and mental health. Marginal students used coping “positive reappraisal” less. Besides, marginality was associated with the degree of the hearing loss, in other words, people that tend to reject their affiliation with any culture has greater hearing loss non-compensated by the device.

- Bicultural students – deaf and with impaired hearing, both oriented towards world of hearing or deaf people, had better mental health and more often used coping strategy “positive reappraisal”.

Table 03. Correlation between the type of self-identification and coping, personality characteristics, type of communication, age, degree of hearing loss

	«Hearing»	«Deaf»	Marginalit	Biculturalism
Age	-,173*			
Degree of hearing loss (without device)	-,252**	,196*	,210*	
Degree of hearing loss (with device)	-,392**	,224**		
Type of the school and communications at home				
Sign Language		,216*		
Read lips		-,184*		
General education school		-,190*		
School for the hearing impaired students	,284**			
Residential school for deaf students	-,333**	,267**		
Academic Achievement (GPA)	,183*			
Coping				
Distancing		-,255**		
Acceptance of responsibility	,199*	-,199*		
Planning of solving the problem	,206*	-,182*		
Positive reappraisal	,230**	-,188*	-,250**	,183*
Personality characteristics				
Self-esteem			-,230**	

Extraversion			-,222**	
Conscientiousness/organized			-,186*	
Agreeableness			-,195*	
Emotional stability	-,204*			
Personality resources			-,220**	
Psychological (mental) health			-,232**	,168*
Feeling fullness /depression			-,178*	
Sense of self-worth			-,241**	

Note: *p<0.05; ** p<0.01;

7. Conclusion

Self-identification with the culture of deaf or hearing people depends on the degree of hearing loss, conditions of the educational environment, type of communication in family: greater hearing loss and associated with it factors – education in residential schools for deaf children, sign communication in family – increase the probability of formation among people with severe hearing loss identification with the culture of deaf people. And on the other side less severe hearing loss, education in general school or school for hearing impaired students combines with the mixed ways of communication in family (oral and signs) contribute to formation of identifications with the culture of hearing people.

In formation of marginal and bi-cultural types of self-identification type of educational system or way of home communications do not play that significant role as they do for formation of other types of identification; degree of hearing loss affects in different ways – marginal students have greater degree of hearing loss, bi-cultural students – moderate hearing loss.

ANOVA results also proved the significance of hearing loss defect severity factor: students with lower degree of hearing loss and identifying themselves with the “world of hearing people” possessed elaborate personality resources, actively use coping strategies and generally were better adjusted in the society of hearing people.

Student who limited themselves within the culture of deaf people had more severe hearing loss and accordingly had more communication barriers. Lack of use or seldom use of coping strategies by these students point at decreased level of stress in their life. Their self-esteem have not been challenged in the specific social environment of the students with the same severity of defect, and thus this environment provided sense of comfort (we can assume that from the high scores on mental health, personality resources and emotional stability). This fact should be taken in account during making the decisions on the relevance of maintaining of special groups for deaf students in the system of high school and university education.

“Bicultural affiliation” appeared to be safer and more effective from the perspective of adaptation. Individuals capable to identify themselves in terms of values and goals of “hearing world” and “deaf world” can live actively in any of these worlds; get positive reinforcement of their self-esteem and personality resources. Their adaptation in daily life is easier, behavioral repertoire more elaborated due to experience of living as “deaf among hearing and deaf among deaf”.

Study results showed that marginality – lack of identification with both culture of hearing people and culture of deaf – leads to most severe consequences in terms of personality development, mental and

social well-being of a deaf person or person with hearing impairment. Having most low self-esteem, worse mental health and reduced personality resources, lowest level of extraversion, self-confidence and life satisfaction, they in fact become “risk group”.

All these data profoundly argue the importance of cultural “anchor” for people with hearing deprivation, lack of which leads to personality disintegration, social and psychological disadaptation.

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