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### Psychology of Personality: Real and Virtual Context

# STIGMATIZATION OF DEAF AND HARD-OF-HEARING STUDENTS STUDYING IN DIFFERENT INSTITUTIONAL SETTINGS

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### *Abstract*

Deafness is a serious disabling sensory disorder that contributes to the formation of stigma – one of the main obstacles to successful mental and social adaptation of people with hearing loss. The study of various aspects of the formation of internal stigmatization in deaf and hard-of-hearing students will help them to pass the integration process in the safest way and feel part of the student society. We studied 155 deaf and hard-of-hearing students studying in different institutional settings. The most significant problems faced by deaf and hard-of-hearing students were identified, which reflect the essence of discrimination (social restrictions in employment and education, dependence on others and others). The nature and degree of stigmatization of students were influenced by the degree of hearing loss, age of onset of deafness, personality characteristics, level of mental health, type of identity - "inclusion" in the "world of hearing" or "world of the deaf", as well as learning conditions that contribute to their acculturation. Students with congenital hearing loss were less stigmatized – despite the pessimistic prognosis of their deafness, they did not limit themselves to visiting public places, and noted a friendly attitude towards them from others and family, which indicates that they got rid of the defect. Self-stigmatization was more pronounced in students studying under inclusion than in differentiated groups. Individuals with higher levels of extraversion, self-awareness, collaboration with others, a more pronounced sense of self-worth, a developed capacity for empathy, and higher rates of mental health were less likely to be stigmatized.

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**Keywords:** Acculturation, coping, deaf, stigmatization.



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## 1. Introduction

Most studies of social integration of deaf and hard-of-hearing students show that the experience of interaction with hearing peers can be positive and depends on the level of their social and communicative competence, emotional stability and inclusion in the social life of an educational institution. Ideally, inclusion would teach the deaf students to function effectively in both hearing and deaf societies. However, this is not always the case. Despite all modern technical capabilities and medical technologies (subtitles, Smartphone, hearing AIDS, cochlear implants), the deaf still have limitations in communication and access to communication in a group (not everyone hears what he is told), and the development of oral and written speech skills also does not correspond to age. There are also difficulties in social relations with hearing peers, since they are poorly aware of their problems related to deafness (Antia & Stinson, 1999; Bat-Chava & Deignan, 2001; Eriks-Brophy, et al, 2007; Musselman et al., 1996; Preisler et al., 2005; Stinson & Whitmire, 1996). All this negatively affects their self-esteem, status in the peer group, academic achievements, and contributes to the stigma that prevents the successful integration and adaptation of the deaf in an educational institution (Kersting, 1997).

The dramatic increase in the number of deaf students with cochlear implants (CI) over the past 15 years also indicates the importance of studying their educational and psychosocial adaptation. Despite the lack of external differences with hearing peers, deaf students are more likely to feel lonely or intimidated by their classmates (Kent, 2003; Leigh et al., 2009). Almost all implanted young people express a desire to continue contacting the deaf peers in addition to communicating with hearing peers, because this gives them a greater sense of security (Christiansen, Leigh, 2005). This confirms that technologies do not always "solve everything" and cochlear implants are only an auxiliary tool, and not the main factor affecting their psychosocial functioning, contrary to what was believed ten years ago. How parents and the educational system respond to the psychological needs of these young people matters more than whether or not they have implants. The goals of the vocational education system should be to create good communication conditions accessible to every deaf or hard-of-hearing student, as well as to optimize the learning process, which would provide reliable, comprehensive and differentiated conditions for their development and activities.

## 2. Problem Statement

Despite social discrimination, which has a psychologically harmful effect, the above-mentioned researchers did not find a significant effect on the type of school. However, their research has shown that the ideal school environment is one that allows the deaf students to develop the bicultural skills needed in a hearing society, and at the same time, allows them to identify with the deaf community. This means that a school where the deaf students are among the similar others, but at the same time interact with hearing peers, would be ideal for developing their self-esteem and would contribute to destigmatization. Crocker and Major (1989) found a factor that can mitigate the impact of inclusive learning on their self-esteem and psychological well-being - which is the membership in a minority group (the deaf community). In discussing the self-protective characteristics of stigma, they argue that membership in a minority group protects their self-esteem not only from overt prejudice or discrimination, but also from everyday failures,

flops and rejections, allows them to ignore the opinions of "outsiders" as insignificant and take into account only the positive assessments of significant persons in their own environment. Maintaining a connection with the world of the deaf people for emotional and social support is considered by them as a specific psychological resource.

However, the role of personality factors and coping in the developing of self-stigmatization of the deaf people has not been previously considered. Although deaf young people need a sense of belonging to a group of similar people, they should still strive to function in the world of hearing people. Otherwise, they will not be able to achieve a good quality of life and make a significant contribution to society as a whole.

### 3. Research Questions

1. A more pronounced auditory defect increases the risk of self-stigmatization in deaf students, especially in inclusion settings.
2. The severity of self-stigmatization is associated with greater hearing loss, "deaf" acculturation, low self-esteem, poorer personal resources and mental health, and less constructive coping.
3. On the severity of the deaf-stigmatization affects the age of onset of deafness– the later is loss, the more difficult adaptation and stronger "stigmatization" attitudes are.

### 4. Purpose of the Study

1. To identify the most vulnerable, significant areas of life where deaf students are stigmatized.
2. To evaluate the impact of factors related to deafness (age and degree of hearing loss, type of learning - inclusion/differentiation) on the degree of self-stigmatization in students with hearing impairment.
3. To find out who is more likely to self-stigmatize? What personality characteristics, degree of mental health, type of acculturation and coping are characteristics of those deaf students who demonstrate "stigmatization" attitudes (or giving "stigmatizing responses").

### 5. Research Methods

**Participants:** The study involved 155 deaf and hard-of-hearing students (84 male and 71 female) aged from 18 to 48 years - 28 students of the Herzen State Pedagogical University of Russia (St. Petersburg), as well as 103 students of the Kazan National Research Technical University named after A. N. Tupolev, 24 students of the Kazan Aviation Technical College named after P. V. Dementieva.

In Kazan, the training was conducted in differentiated groups with sign language translation and in Saint Petersburg-inclusive groups where the deaf and hard-of-hearing were trained among their hearing peers. 41 respondents (26.4%) were aged 17–20 years, 91 respondents (58.7%) - aged 21–25 years, 23 (14.8%) - aged 26 years and older. 26 respondents (16.7%) rated their hearing loss (without hearing aids) as moderate, 73 (47.1%) as severe, and another 56 (36.1%) as deep. 52 respondents (33.7%) were born deaf, 72 (46.7%) - lost their hearing before the speech period - before 1 year, 30 (19, 4%) – later.

### **Measures:**

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

Scale of self-esteem (Rosenberg et al., 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 & Elliott, 2005).

Comparisons between groups were made depending on the degree of hearing loss, time of onset of deafness, learning conditions (inclusion or differentiation), as well as depending on the answers to the main questions indicating "stigmatizing" attitudes and experiences of the deaf. For this purpose, we used primary statistics (Cross-Tabs, Pearson  $\chi^2$ , T-test, single-factor analysis of variance).

## **6. Findings**

### **6.1. The most meaningful aspects of stigma among deaf and hard of hearing students**

The analysis showed that 49% of respondents consider themselves disabled, 38% deny it, and the rest found it difficult to answer. As the main problems associated with their disease, 84% noted hearing loss or its insufficiency, 54% - difficulties in communicating with others, 35% - a change in the attitude of others to them, 34% - distrust on the part of people. As the main negative factor affecting their quality of life (QL) and social opportunities, 61% identified hearing loss itself, but 39% noted that they were mainly affected by the attitude of society, which also indicates stigmatization. Mainly, deafness led to the loss or absence of work (36%), misunderstandings from friends and others (37%), worsened the financial situation (17%), and also led to the inability to continue studying (12%) and problems in starting a family (10%). 31% of respondents tried to hide from others that they are deaf, 36% of respondents noted that there were situations when people found out that they are deaf, began to treat them worse. 46% of respondents do not believe in improving the hearing condition and 47% believe that the treatment is hopeless.

### **6.2. Assessment of self-stigmatization depending on the age of onset of deafness**

To answer the question who had the most severe stigma - those with congenital deafness or those who were late-deafened-they were divided into three groups, among which the following differences were obtained:

- Among those with congenital deafness, there were more people who do not believe in improving their condition than among the late-deaf, although they believe in a favorable course-also more ( $p=0,009$ );

- Among the deaf who were denied admission to sports clubs, there were significantly more deafness later than with congenital deafness ( $p=0,035$ );

- Individuals with a birth defect were significantly more likely to report a friendly attitude of society towards deaf people ( $p=0,013$ ).

- Individuals with congenital deafness were significantly more likely to observe a sympathetic attitude of society towards the deaf and hard of hearing people than those who were late deafened ( $p=0,028$ );

- Among the late deaf students there were more people who were not psychologically supported by their family ( $p=0.09$ , tendency);

- Individuals with congenital deafness were less likely to restrict themselves from visiting public places due to deafness ( $p=0.09$ , tendency), which indicates the "get rid" experience of their defect and normalization of their condition.

### **6.3. Assessment of the impact of the degree of sensory defect on the severity of stigmatization**

For this purpose, the sample was divided by the degree of hearing loss into 4 groups. The first group (42 people) included students who were well compensated with hearing AIDS almost to the sensory norm. Most of them hid the fact that they had disabilities and were hard of hearing. The group with moderate hearing loss included 61 people, the group with severe loss – 44 people, and with deep hearing loss-7 people. Differences between these groups were found only at the trend level:

- The greater the hearing loss, the greater was the acceptance and psychological support from the family. There were no respondents with deep hearing loss who were not supported by their family ( $p=0.092$ , tendency);

- Individuals with mild to moderate hearing loss were more likely to have concerns about marriage and having children due to their deafness than students with profound hearing loss ( $p=0.075$ , tendency);

- People with deep hearing loss. more often did not believe in improving their condition/Those who believed in improving their condition were more likely among respondents with a defect compensated (with the help of the device) to the norm ( $p=0.09$ , tendency).

### **6.4. Assessment of the impact of learning conditions on self-stigmatization**

Differences between students of differentiated and inclusive forms of education were obtained only on 4 questions:

-Those who believe in improving their condition among Kazan students (differentiated groups) were significantly more than among students studying in the conditions of inclusion in St. Petersburg ( $p=0.009$ ).

-There were more students who pessimistically assessed the prognosis of qualified treatment for their deafness among those who studied under inclusion conditions ( $p=0.062$ , tendency) than in special groups, although there were more deaf people in Kazan.

- There were more students in differentiated groups ( $p=0.069$ , tendency) who were more likely to note the attentive attitude of society to the deaf and hard of hearing people than in the conditions of inclusion.

- Students who were more likely to complain about society's neglect of the deaf people were more likely to be enrolled in inclusion process than in differentiation one ( $p=0.080$ , tendency).

### **6.5. Assessment of personal factors and coping behavior in "stigmatized" students**

The task was to find out who is more prone to self-stigmatization? What personality characteristics and coping methods do individuals with stigmatizing attitudes have? The criteria for dividing them into groups were their answers to questions that revealed different aspects of stigmatization. One-factor analysis of variance showed the following:

- Those who considered themselves disabled were more likely to coping with social support search (p=0.047) and less likely to use "distancing" coping (p=0.056, trend);

- Those who noted that "hearing loss did not affect their QL and social capabilities" had higher levels of extroversion, self-awareness/self-organization, collaboration with others, a more pronounced sense of self-worth, a developed ability to empathize, and higher rates of mental health (Table 1).

**Table 01.** Characteristics of personality and coping of deaf associated with their assessment of the quality of life

Parameters	"Has hearing loss affected your quality of life and social opportunities?«							
	Not reflected N=49	Hard to answer N=50	Reflected N=38	Significantly worsened QL N=12	Had a dramatic effect on QL N=5	Significance		
						ANOVA	Bonferroni	
M±σ	M±σ	M±σ	M±σ	M±σ	F	p		
<b>Coping</b>								
Specific coping «Covering»	7,87±2,137	8,48±2,366	9,26±2,554	9,08±1,831	10,20±4,207	2,589	,039	pI-III=,078*
<b>Personality characteristics</b>								
Extraversion	27,34±4,858	25,22±4,353	24,26±4,897	27,00±3,541	23,60±5,412	3,079	,018	pI-III=,025
Conscientiousness/organized	31,59±5,415	29,58±4,755	28,26±5,171	27,75±4,634	31,60±5,899	3,034	,019	pI-III=,030
Agreeableness	34,12±3,689	33,62±4,444	30,23±4,623	32,50±3,397	35,60±3,781	5,839	,001	pI-III<,001 pII-III=,002 pIII-V=,077*
Psychological (mental) health	58,32±8,153	55,76±5,680	54,18±6,224	59,41±7,925	53,60±5,856	2,846	,026	pI-III=,060*
Sense of self-worth/confidence	32,87±5,376	30,42±5,451	29,94±4,223	32,91±5,418	30,80±5,069	2,491	,046	pI-III=,092*
Empathy/love capacity	32,77±4,053	31,06±3,07	30,50±4,247	33,41±2,810	30,00±3,937	3,095	,001	pI-III=,066*

Note: - \* p – tendency

- Those who believed that their quality of life (QL) and social opportunities were more influenced by the attitude of society to them, were more likely to use coping strategies "avoidance" (p=0.05), they were more dependent (p=0.062, tendency) and less satisfied with themselves and self-acceptance (p=0.047);

- Those who tried to hide from others that they were deaf were significantly more likely to identify with a hearing culture, they used more of the "bicultural skills" coping that was specific to the deaf and hard-of-hearing people, they were more introverted, less emotionally stable, and had worse abilities to cooperate with others (Table 2).

**Table 02.** Acculturation, coping and characteristics of personality of deaf associated with the defect concealment

Parameters	<i>"Have you ever had a situation in your life when you tried to hide from others that you have hearing problems?"</i>		
	«Yes» N = 48	«No» N = 90	Significance
	M±σ	M±σ	p
<b>Acculturation</b>			
Identification with the hearing	21,208±3,649	19,16±4,460	0,005
<b>Coping</b>			
Specific coping strategy «Bicultural skills»	23,83±3,639	22,44±4,300	0,048
<b>Personality characteristics</b>			
Extraversion	24,45±5,649	26,85±4,068	0,012
Agreeableness	31,68±4,925	33,15±3,985	0,079, tendency
Emotional stability	24,47±6,776	26,44±5,936	0,094, tendency

- Those who admitted situations when people found out that they were deaf, began to treat them worse, more often referred themselves as "deaf culture", used a specific coping "withdrawal or immersion in the world of the deaf", were more focused on coping strategies "search for social support" and "positive reassessment". Those who denied such situations had higher levels of extroversion and mental health, and better skills to collaborate with others (Table 3).

**Table 03.** Acculturation, coping and characteristics of personality of deaf associated with presence of social discrimination

Parameters	<i>"Have you ever had a situation in your life when people started treating you worse when they found out that you were deaf?"</i>		
	«Yes» N = 56	«No» N = 73	Significance
	M±σ	M±σ	p
<b>Acculturation</b>			
Identification with the Deaf	20,12±4,540	18,39±5,163	0,046
<b>Coping</b>			
Specific coping strategy «Withdrawal» into the Deaf community	13,80±3,170	12,58±3,733	0,048
Search for social support	12,08±3,439	10,93±3,101	0,051
<b>Personality characteristics</b>			
Positive reappraisal	12,78±4,088	11,63±3,694	0,095 tendency
Extraversion	24,57±4,443	26,16±4,853	0,055 tendency
Agreeableness	31,89±4,351	33,84±4,430	0,013
Psychological (mental) health	55,23±6,484	57,57±6,484	0,063 tendency

- Those respondents who were concerned that "deafness may be inherited by their children" had more pronounced hearing loss, a tendency to coping "distancing", and lower levels of self-esteem, extroversion, behavioral control, and fullness of life (Table 4).

**Table 04.** The degree of hearing loss and characteristics of personality of the deaf depending on the degree of self-stigmatization

Parameters	<i>"Are you afraid that your disease may be inherited by your children?"</i>		
	«Yes» N = 37	«No» N = 86	Significance
	M±σ	M±σ	p
<b>Severity of hearing loss</b>			
Severity of hearing loss with hearing aid	2,29±0,811	2,00±0,854	0,071 tendency
<b>Personality characteristics</b>			
Self-Esteem	27,78±4,359	29,26±4,053	0,082 tendency
Distancing	10,64±2,840	9,48±2,848	0,042
Extraversion	24,37±4,614	26,44±4,825	0,028
Behavioral control	43,54±3,516	45,09±4,465	0,042
Feeling fullness / depression	32,702±6,484	34,91±5,762	0,077 tendency

- The most pessimistic prognosis of their condition was typical for respondents with more pronounced deafness and less formed personal resources, self-awareness and ability to cooperate (Table 5).

**Table 05.** The degree of hearing loss and characteristics of personality of the deaf depending on the self-prognosis of deafness

Parameters	<i>"Do you believe in improving your condition?"</i>		
	«Yes» N = 41	«No» N = 70	Significance
	M±σ	M±σ	p
Severity of hearing loss with hearing aid	1,90±0,800	2,21±0,946	0,067 tendency
Conscientiousness/organized	31,43±5,531	29,11±4,968	0,030
Agreeableness	34,26±4,533	31,85±4,202	0,007
Personality resources	30,90±12,76	26,91±5,380	0,063 tendency

- The feeling of guilt for their deafness to their relatives was not typical for those whose life was quite meaningful, diverse and filled with a large number of emotional experiences, who experienced pleasure from their own life (p=0.04);

- Those respondents who restricted themselves to travel after receiving disability, identified themselves with the "deaf society" (p=0.075, tendency), were more autonomous (p=0.082, tendency), and were less likely to solve problems using confrontational coping (p=0.072, tendency).

## 7. Conclusion

The tools we used proved to be quite effective in identifying the most sensitive aspects of the life of deaf people in which stigma is formed. It allowed us to test the initial hypotheses that the nature and degree of stigmatization depends on the degree of deafness, age of hearing loss, personality and mental health characteristics, and the type of acculturation.

The obtained results allow us to conclude that "stigmatization" attitudes are mainly characteristic of deaf and hard-of-hearing students with poorly formed personal qualities, such as self-awareness/organization, cooperation with others, self-acceptance, and the ability to empathy/love. They also had more pronounced introversion, poorer personal resources, and mental health.



Our study of self-stigmatization also showed that learning in the context of inclusion is a more serious challenge for the deaf students, and this naturally affects their assessment of themselves and their social environment, from their point of view, more negatively disposed towards them. It is obvious that in the future, the positive effect of integrated learning will depend on the support of centres that provide both psychological support and the necessary level of adaptation of deaf students in an educational institution, and optimize their integration into the majority society after graduation.

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