SOCIO-CULTURAL ADAPTATION OF CHILDREN WITH SENSORY DISABILITIES IN THE BULGARIAN SOCIO-CULTURAL ENVIRONMENT

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Abstract: The problem of sociocultural adaptation of children with sensory disorders has a proper place in the Bulgarian sociocultural space. This article is devoted to a two-year-long study whose relevance is conditioned by the need to find ways to successfully integrate these children in a modern civilized society. The formulated aim of the study is focused on establishing the level of socio-cultural adaptation of children with impaired auditory and visual modality and the identification of factors that determine their peculiarities. 210 children with sensory impairments from early school, primary school and middle-school age were included, distinguished into the following 4 groups: the ones with impaired hearing (n = 60), deaf children (n = 42), visually impaired children (n = 77), blind children (n = 31); 47 teachers from general and special structures, 153 parents. The methods used are: observation, surveying, interviewing, expert evaluation, analysis of normative documents and experimental materials, statistical analysis of empirical data (correlation, alternative and comparative analysis). From the summarized results, it is concluded that for children with the described model of ontogeny, socio-cultural adaptation is a concept that is represented at different levels. The clearly expressed dominants are the medium and low levels, which implies the partial or complete impossibility of fulfilling the generally accepted socio-cultural functions. In addition to the degree of sensory impairment as factors determining the characteristics of the sociocultural adaptation of children, the following factors were outlined: the professional readiness of teachers, the level of psychological and pedagogical competence of the family, and the attitudes of the society towards children with atypical development.

UDC Classification: 376, DOI: https://doi.org/10.12955/pss.v1.50

Keywords: socio-cultural adaptation, children with sensory impairments, integration, socio-cultural environment.

Introduction

The population of sensory impaired children (deaf/hard of hearing and blind/visually impaired) educated in schools in Bulgaria is rapidly increasing; specifically, it is becoming more diverse as a result of medical and technological advances and shifting demographic and immigration patterns. At the same time, the dynamic processes of contemporary social reform often have a negative effect on their integration and adaptation. They are confronted with the problem of independent lifestyles against the background of low efficiency in the implementation of socio-educational technologies and rehabilitation approaches. Educational structures are not yet able to respond to the changing needs of children with sensory impairment (deafness and blindness), and extant research of their sociocultural adaptation is yet sparse in Bulgaria. The present article focuses on a specific population of children with equal access to socio-cultural knowledge, experiences, and opportunities to participate in shared or joint activities with peers. The study aimed to establish the level of socio-cultural adaptation of these children and identify factors that determine its characteristics.

Literature Review

The World Health Organisation estimates that approximately 1.3 billion people worldwide have a significant visual impairment and over 460 million people have a significant hearing impairment. The term sensory impairment encompasses visual loss (including blindness and partial sight), hearing loss (including the whole range) and multisensory impairment (which means having a diagnosed visual and hearing impairment with at least a mild loss in each modality or deafblindness). The problem of socio-cultural adaptation of children with impairments in auditory and visual modality is one of the challenges of contemporary society.

At the moment, socio-cultural adaptation provokes the interest of psychologists, sociologists, educators, social psychologists, etc. Researchers from different scientific fields reveal different aspects of the process; study the mechanisms, principles and conditions of its implementation with children with different types and degrees of disorders. Socio-cultural adaptation is distinguished as a kind of social adaptation. It is defined as the process of adapting an individual to the environment and purposefully adapting of its separate elements so as to meet their own needs and desires (Anderson, 1994). This is realized through the knowledge and skills acquired in the course of socialization in the continuum of social interaction and communication. Socialization, on the other hand, is a process of individual development of socially significant cultural competences, whose foundations, according to Ivanova & Kartselyanska-Stancheva (2018), are laid down as early as the preschool age.

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Socio-cultural adaptation is a complex and multifaceted phenomenon characterized by constant transformations. The sociocultural approach to the adaptation of children with impaired auditory and visual modality presupposes the existence of the following interconnected three components: personality, society and culture where the requirements and expectations of society from the personality of the “atypical” child are in a position of constant coherence (Ward & Kennedy, 1999).

For a child with sensory impairments, sociocultural adaptation is of particular importance for its further integration into society and social life as a whole. Dandy and Cullen (1988) assume that the main types and forms of inclusion are realized within five adaptation cores of sociocultural interaction: the family, the closest environment of the family, pre-school educational structures, school educational institutions in parallel with cultural and sports institutions, as well as the post-school period. The success of adaptation practices is in subordination with the characteristics of the socio-cultural macro- and micro-environment, with the specifics of the state socio-cultural policy. The functioning of the family and the educational institution provides the child with the prospect of achieving such a standard of adaptation, the level of which can be determined by the developed criteria system for the individual's readiness for adaptation and social integration.

The issue of adaptation is closely linked to the issue of health - ontogeny. This continuum is irreversible in the life cycle of the individual. The multi-functionality and multi-directionality of the life path determine the interconnectedness of the somatic functioning (the attitude towards one's physical condition, the state of your own health), the personality (attitude towards oneself as a person, attitude towards one's own behaviour, outlooks, protective mechanisms) and the social function (communication, attitude to situations and social institutions, activities, etc.).

The socio-cultural adaptation of children with sensory impairments has its own distinctive features and problems. Hearing and visual pathology lead to a significant restriction of life activity, to social maladaptation, which causes difficulties in communication, training and the further mastering of professional habits. Another significant problem is the symbolic barriers raised by society (Searle & Ward, 1990). Overcoming them is far more difficult than physical barriers. This necessitates an increase in the vital activity of children with atypical development and the formation of a new concept in society to encourage their pursuit of an independent and high quality of life. Knowledge of cultural values, participation in common cultural and recreational activities, together with all members of society, contribute to the enhancement of the emotional well-being, the social communication and the social inclusion of deaf and blind children, which in its core has a common rehabilitation potential.

The analysis of the research material offers a theoretical basis for undertaking a large-scale study of the phenomenon under consideration with children with sensory impairments (hearing and visual). The main purpose of the study was to provide an in-depth examination of socio-cultural adaptation in children with sensory disorders in the Bulgarian socio-cultural environment.

The aims of the current study were:

- to determine the system of indicators for socio-cultural adaptation of individuals with sensory disabilities in the surrounding social environment;
- to differentiate the levels of socio-cultural adaptation and perform a comparative analysis between the participants in the different groups;
- to investigate the potential factors determining the level of socio-cultural adaptation in children with auditory and visual modality deficits.

The study’s objective was to establish the level of socio-cultural adaptation of children with sensory disorders from early school age to middle-school age and to identify factors that determine its characteristics.

**Data and Methodology**

The block of findings of the study was organized in the period from 2017 to 2019 in the special and general educational structures in which children with sensory disorders are trained.

The research project was approved by The Bulgarian Trakia University Research Ethics SubCommittee. Informed, written consent was obtained from the parents for all children to participate and teachers. Consent was also obtained from all children before the start of the sessions. Interpreters were provided for children who used Sign language or Braille.
The study was large in scope as it was conducted with the participation of 210 children with impaired auditory and visual sensory systems (early school, primary school and middle school age). The relative share of children with different degrees of impairment is as follows: deaf children – 20% (n = 42), children with impaired hearing – 28.60% (n = 60), visually impaired children – 36.60% (n = 77), blind children – 14.80% (n = 31). The experiment included 47 teachers from special and comprehensive schools and 153 parents.

The heterogeneous group of children according to the type and degree of disorders was not differentiated by the age criterion. The main argument for doing this was that sociocultural adaptation was seen not as a stage in the development of the child, but as a condition for its inclusion in society which can be formed at different levels, regardless of age, and allow for the activation of adaptive and integrative mechanisms.

The evaluation methods included were: observation, survey, interview, expert evaluation, analysis of normative documents and experimental materials, statistical analysis of empirical data (correlation, alternative, comparative analysis).

The analysis of the research material allowed the presentation of summarized results informative of the achieved level of socio-cultural adaptation of children with hearing and visual impairments, taking into account the pre-formulated criteria and indicators (Table 1).

| Indicators/levels | Hard of hearing children (%) | Deaf children (%) | Visually impaired children (%) | Blind children (%) |
|-------------------|-----------------------------|------------------|-------------------------------|------------------|
| Low               | 21.7                        | 21.4             | 13.0                          | 58.1             |
| Medium            | 58.3                        | 76.2             | 79.2                          | 38.7             |
| High              | 20.0                        | 2.4              | 7.8                           | 3.2              |

Source: Author

Results

The differentiated groups of children by type of disorder (hearing impairment, deafness, low vision, blindness) were divided into three groups according to the indicators of the achievement of the socio-cultural adaptation: low level, medium level, high level. Within the group of the hard of hearing children, the largest share was that of the participants who fell within the range of the average level of socio-cultural adaptation (58.3%). They were followed at a great distance by the children representing the low levels (21.7%). 20.0% of the total number of children was placed at the high level. The distribution of deaf children was also distinguished by three levels of representation: high (2.4%), medium (76.2%) and low (21.4%). The higher percentage of participants exhibiting an average level of socio-cultural adaptation was at the expense of the high level reached by one child. In the group of visually impaired children, there were also achievements characteristic of the average level of socio-cultural adaptation, with the relative share of respondents having a quantitative indicator of 79.2%. A low level of adaptability was demonstrated by 13.0% of the surveyed persons, and a high level was characteristic of the meagre share of 7.8%. Three levels of sociocultural adaptation were registered in the group of children with severe visual impairment. The low level was covered by 58.1% of the studied participants. The average level was typical for 38.7% of the surveyed population and the high level followed the trend found in the group of the deaf children (only 1 child).

The statistically significant correlation between the level of sociocultural adaptation and the degree of sensory impairment was determined using the Pearson's correlation coefficient (Table 2). Pearson's coefficient is calculated by the formula:

\[
\sigma = \frac{ad - bc}{\sqrt{(a+b)(c+d)(a+c)(b+d)}}
\]

The odds can change from -1 to +1. Its closer value to the unit implies higher correlation. Obtaining a zero result does not mean that it is not linear and cannot be proven with this method. The statistical significance of the coefficient obtained is calculated by the formula:
\[ t = \frac{r \sqrt{n - 2}}{\sqrt{1 - r^2}} \]

where \( n = a + b + c + d \), \( r \) is the corresponding coefficient and \( t \) is the verification value. The 'critical value' \( t_{\alpha, \nu} \) is taken from the table, and \( \nu = n - 2 \). If \( t > t_{\alpha, \nu} \), then the coefficient obtained is statistically significant (Peneva & Slavchev, 2015).

**Table 2: Statistically significant relationship between the level of sociocultural adaptation and the degree of sensory impairment**

| Indicator/level | Groups sensory impairment | \( r \) | \( t \) critical | \( t \) | Significance | Strength of correlation |
|-----------------|---------------------------|--------|-----------------|-------|-------------|------------------------|
| 1. medium/high  | hard of hearing/deaf      | 0.300  | 1.991           | 2.816 | +           | poor                   |
| 2. medium/low   | hard of hearing/deaf      | 0.059  | 1.988           | 0.560 | -           |                        |
| 3. high/low     | hard of hearing/deaf      | -0.355 | 2.035           | 2.249 | +           | poor                   |
| 4. medium/high  | hard of hearing/visually impaired | -0.224 | 1.981 | 2.451 | +           | poor negative         |
| 5. medium/low   | hard of hearing/visually impaired | -0.161 | 1.980 | 1.785 | -           |                        |
| 6. high/low     | hard of hearing/visually impaired | 0.103  | 2.023           | 0.664 | -           |                        |
| 7. medium/high  | blind/visually impaired   | 0.016  | 1.991           | 0.147 | -           |                        |
| 8. medium/low   | blind/visually impaired   | -0.469 | 1.984           | 5.333 | +           | moderate negative      |
| 9. high/low     | blind/visually impaired   | -0.401 | 2.035           | 2.593 | +           | poor negative          |
| 10. medium/high | blind/deaf                | -0.103 | 2.015           | 0.702 | -           |                        |
| 11. medium/low  | blind/deaf                | -0.387 | 1.995           | 3.538 | +           | poor negative          |
| 12. high/low    | blind/deaf                | -0.089 | 2.052           | 0.480 | -           |                        |

Source: Author

The values of \( T \) are critically different on a case-by-case basis because they are determined by the number of degrees of freedom that are directly dependent on the volume of the sample. The latter has different values in the separate groups of persons. The values of \( T \) are critically borrowed from Table B2 of Kalinov (2002).

No statistically significant dependence was observed in the Pearson values in the dichotomous items: 2, 5, 6, 7, 10 and 12. This characteristic was found mainly in the groups of children with impaired hearing/partially sighted and in the groups of blind/deaf children.

In cases where statistically significant dependence was reported, the highest Pearson coefficient value was observed in the groups of children with impaired hearing/partially sighted and in the groups of blind/deaf children in the dichotomous pair: medium-low level of socio-cultural adaptation (-0.469).

The lowest significant value (-0.224) was observed in the groups of the children with impaired hearing and the visually impaired children at medium/high level of adaptation.

The observed correlation in the individual variants is generally weak. Only in one of the combinations (blind/visually impaired) it can be considered average in strength in the middle and low levels of socio-cultural adaptation.

In the majority of cases (5 out of 6), an inverse relationship was registered, which means that for children with a higher degree of impairment, positive dynamics in the formation of sociocultural adaptation are just as real a phenomenon as in children with better characteristics of the auditory and visual sensory systems.
Discussion
The main aim of this study was to examine the socio-cultural adaptation in deaf and blind children and to explore the associated factors that determine its features. From the empirical data obtained, it was concluded that in children with the described model of ontogeny, sociocultural adaptation is a concept that is represented at different levels. The pronounced dominants were the middle and low levels, which implies the presence of partial or complete inability to perform socio-cultural functions, generally accepted for persons of a given age, gender and many other socio-demographic characteristics. High-level indications in the group of deaf and blind children were extremely minimized. The result was not surprising given the consequences of a severe hearing impairment that spans the child's overall development: communicative, cognitive, emotional and personal. These findings are consistent with those of McCrae & Costa (1997) according to which sociocultural adaptation in children with severe pre-linguistic deafness is often complicated by emotional and behavioural disorders that accompany low communication activity and low levels of psychological comfort. The prevalent cases are those in which these children demonstrate confinement inclinations, the preference for communicating with "the ones similar to them", as well as painful reactions in situations of finding their disorder. Similar patterns were observed in blind individuals. Children with a low level of visual functioning manifest a weak impulse for communicative interaction, a pronounced desire for isolation, reduced control over emotions, limited mobility, rigid behavioural patterns, insufficient acquisition of the moral and cultural norms of the social environment, minimized opportunity for productive interaction with the communicative partners (Erwin, 1993; Brown & Gordon, 1987).

It was found that the possibilities for successful realization of the phenomenon under consideration in children with auditory and visual modality are in the same position of dependence on the nature and severity of the primary disorders. As subjects of sociocultural adaptation, children from both groups acquire at about the same level (average) the social norms and cultural values of society, in unity with their development and self-defining. The high level of adaptability was almost absent in both populations in this study. The findings are supported by the data of previous study in which unfortunately, high indicators of communicative activity in society, formed arbitrary regulation of behaviour, high levels of mobility and comfort, absence of asocial manifestations, fully formed ethical norms, typical characteristics of behaviour (positivism, good will, openness), adequate self-esteem and productivity, which is of a constant nature were not among the characteristic manifestations of sociocultural adaptation (Coplan et al. 1994).

What made an impression in this study was that the children with impaired auditory or visual modality did not have a sufficiently high adaptive potential to the social environment because of the limited need for social integration, on the one hand, and the regularity of existing public attitudes towards these children, on the other. Communication difficulties between many children with typical development and their peers with sensory impairments are an indisputable barrier to adaptation, which cannot be overcome without adequate schooling measures to facilitate communication and promote the integration of deaf children and blind children included in the social care “network” for children's. This conclusion was also reached by other authors who initiated such studies (Nunes et al. 2001; Johnson & Johnson, 1981). Research and reports from clinical cases reveal a relatively identical pattern of problems in the socio-cultural adaptation of children and adolescents with hearing and visual impairment (Vincent, Hasselt, 1983; Sims-Tucker & Jensema, 1984; Stinson & Foster, 2000).

In the study of the professional readiness of teachers in special and general educational structures, lack of any activity was registered on the part of the teachers who, due to different circumstances, have not received sufficient education (only 13% of the specialists in general education have a master's degree in special pedagogy and are familiar with the specifics of activities with these groups of children) and qualifications (21% of the teachers have first and second vocational qualification degree). These data correspond to the results obtained from a survey carried out by Valchev (2019), which further points out that teachers are without high professional confidence. The presence of demographic problems (in special and comprehensive schools many specialists are in retirement age – 38%, and young teachers stay in schools for a short time due to low financial remuneration and excessive workload) which further complicates the situation and adversely affects the functioning of the system of full interaction at different levels. All these indicators hinder the socio-cultural adaptation of children with sensory impairment. The study of the family as one of the factors of sociocultural adaptation in children with
sensory impairments established, in most cases, a low level of its educational potential and a stable isolation from the society (45%). Obviously, parents are not yet aware of the values that inclusive education offers to their children. In relation to the attitudes of the society towards children with sensory impairments, indifference was registered in 78% of the cases; rejection and negative attitude were evident in 14% of the respondents, while empathy, interest and support were shown in only 7% of the cases.

Conclusion

The organized and conducted study provided an opportunity for clarification of an important and current issue concerning the peculiarities of the socio-cultural adaptation of children with sensory impairments (hearing, visual) in the Bulgarian socio-cultural environment. The levels of socio-cultural adaptation and factors for the development of the sociocultural potential of these categories of persons were identified. The analysis of the data led to the conclusion that the level of socio-cultural adaptation in children with sensory disorders is directly dependent on the influence of exogenous and endogenous factors. The latter include the structure of primary and secondary developmental abnormalities, the extent of their manifestation. Exogenous factors are represented by socialization and social integration, which in turn are conditioned by the communication of children in different social contexts, the professional readiness of pedagogues from general educational structures, the level of psychological and pedagogical competence of the family, the attitudes of the society towards children with atypical development.

The material presented does not completely exhaust the theoretical and practical aspects of the considered issues, but it reflects the significance of the results obtained and the findings based on them, which claim to be true and reliable due to the significant number of persons included in the described survey.

The study will allow us to rethink the goals, content, methods, means and the forms of organization of activities in order to create an integrative model of multilevel social space which will increase the level of socio-cultural adaptation in children with hearing or visual disorders and to structure the educational environment without barriers. The basic criterion for its successful functioning will be the transparent and coordinated interaction between all structures of the society.

In addition, simply including children with sensory disorders in typical settings is not enough to ensure that they become full members of the classroom or day care community. Even in the highest-quality environments with supportive professionals, educators must remain sensitive to the social challenges of children who are deaf, hard of hearing, blind and visually impaired, or their inclusion in typical environments can result in reduced social opportunities and isolation.

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