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Chosen Factors that Condition the Level of Social Competences of Children with Cerebral Palsy

Phenomena related to the acquisition of social competencies occur in close connection with processes concerning physical, mental and emotional development. Therefore, they are building blocks of psychophysical development. The progress of these processes in children with Childhood Cerebral Palsy Syndrome (CP) is related to the occurrence of a range of difficulties. Above all, the processes do not occur as they should (to different degrees and in different areas) and at a significantly slower pace. Obviously, this affects the course of the process of motor and movement development in children with this condition. Due to limited explorational activity and a lack of access to some independent ways of doing things, development of the child's knowledge also becomes more difficult. One consequence of limited motor competence is a considerably lengthened period of dependency on people close to the child. This often results in a lower degree of activity and independence, as well as a more weakly articulated need for contact with others, than other children have. There is no doubt that the limitations caused by abnormalities with regard to the acquisition of motor competences, which are reinforced by a slowed speech acquisition process and the speech disorders that occur in the majority of children with CP, undoubtedly affect the quality and range of their social contacts and may cause difficulties in communicating with others. A. Fröhlich (1993) stresses that the development of children with cerebral palsy is characterised by a multitude of difficulties caused by limited means of gathering and absorbing experiences, as well as by limited means of contact with their social environment. R. Michałowicz (1989) describes the psychological effects of childhood cerebral palsy. These include the following: 1) learning difficulties (even if mental development is within the norm) resulting from perception-related intellectual and physical disabilities, from a reduced degree of mobility in the hands and from speech disorders, 2) difficulties in creating satisfactory contacts with peers; these are caused by the child's reduced mobility, 3) increased difficulty with regard to becoming independent, 4) limits with regard to satisfying needs: for instance, the need for acceptance; the need to be independent; the need to belong to a social group; the need for approval, 5) difficulties in

achieving social maturity: this is understood as meaning that a given person is able to cope with life and is able to assume responsibility for others.

A person's level of social competency is a manifestation, an indicator, of how the process of acquisition of social maturity is going. While accepting that the former converges with the notion of adaptive behaviour, like Heber and Grossman, we may understand it as the "effectiveness or degree to which an individual fulfills the requirements of personal independence and social responsibility that are expected of him/her in accordance with his/her age, life and environment" (Kostrzewski 1981). Having an appropriate level of social competency makes it possible for an individual to function independently and responsibly among other people. It also means that he or she can participate in social life. As indicated by Schneiders (Sękowska 1991) (among others), it depends on an individual's personal dispositions, the course of his/her biological development, the level of maturity of his/her personality, the type and range of his/her life experiences and his/her affiliation to a defined social environment.

Research methodology

The goal of the tests that were carried out was to establish the interdependencies between the chosen factors. The latter are related to the psychological and physical states of the children with CP who were tested, as well as to their levels of social competency. When attempting to define their social competency levels, comparative tests were carried out on a group of non-disabled children. The following testing problems related to the area being researched were formulated: 1. What differences in social competency occur between children with CP and non-disabled children in the early years of school? 2. To what degree does the level of social competency of the children with CP vary in accordance with their level of intellectual function, motor ability and the occurrence of additional disorders?

In this presentation, conditions limited to a group of biologically determined health-related factors were accepted. Although these conditions have been acknowledged by many writers as being very important, they are, of course, not the only factors affecting the psychosocial functioning of children with CP. Indeed, there are numerous factors that may be involved, including social competency.

The AAMD Adaptive Behavior Scale for Children and Adults (ABS) was used in the research. This scale, created by K.Nihira, R.Foster, M.Shellhaas, H.Leland and modified and described in a paper by J.Kostrzewski (1981), measures the social

competency of people with intellectual disability and people who are within the intellectual norm. The first part of the scale measures general independent functioning. It is divided up into ten categories: independent functioning; physical development; economic activity; speech development; understanding of numbers and time; work in the home; professional activity; self-control; responsibility and socialisation. The second part of the scale describes possible occurrences of behavioural disorders. These are classified into fourteen categories. This paper will present the results of the research that pertain to the first part of the scale.

The tests were carried out on a group of 60 children with cerebral palsy who were pupils at three capital centres. These centres all used multifaceted therapy. They were also carried out on a control group. This was made up of 60 non-disabled children. Their ages ranged from 7;6 to 11;6 years old. Both groups were put together in a way that ensured that there would be no significant differences between them in terms of factors like gender, age, level of intellectual ability (the intellectual norm), where they lived and the parents' levels of education.

The empirical results were statistical analysed using tests of differences and using also the statistical analysis, with a coefficient from Yule's four-fold correlation, encompassed the establishing of the importance of correlations between some variables.

Research results

The first part of the scale has 10 categories. The same or even a similar level of ability did not appear in any categories in the groups that were compared. The statistical analysis of the results in the group being studied and the control group showed a clearly lower level of social competency in children with CP. High differences of statistical importance ($p < 0,001$) were found between the results obtained in the groups being compared in all the categories. In the socialisation category, the difference was significant, but not such extent as in the other categories ($p < 0,02$). The children with CP got the highest average scores in the following categories: the concepts of numbers and time; socialisation and speech development. However, they obtained their lowest average scores for work done in the home, economic activity and self-control. The children in the control group got their highest results in the following categories: the concepts of numbers and time; speech development; socialisation and physical development. They got their worst results in the categories of self-control, work in the home and economic activity. The largest

differences between the groups being compared (all of them had an unusually high degree of importance) were found in the following categories: physical development (t=20,17); independent functioning (t=11,46) and work done in the home (t=11,25). The smallest differences appeared in the socialisation (t=2,45) and responsibility (t=3,04). However, they also have a significant degree of statistical importance.

The levels of intellectual development and social competency of the examined children with cerebral palsy

All the children with CP who were tested function at an intellectual level that is within the norm. In other words, there were no confirmed incidences of intellectual disability in any of the children's written psychological opinions. However, there are variations in the levels of intelligence of children who were tested. Three intellectual development level groups could be distinguished using the written opinions as an aid: 1 -children of above-average intellectual development, 2 - children of average intellectual development, 3 -children of lower than average intellectual development (or 'below average intelligence'). The highest results in all of the categories in part one of the scale were obtained by the children in the first category, in other words, those who had the highest levels of intellectual ability of all the groups. The children with below-average intellectual ability had the most difficulties in the personal independence category and in the other categories. There were very important differences between group 1 and group 3, as well as between group 2 and group 3, with regard to the following: economic activity; speech development; the concepts of numbers and time; self-control and socialisation. Children from the first and third groups are very different with regard to individual resourcefulness and responsibility. Physical development and the children's abilities to do work in the home were the only categories in which levels of intellectual ability were not differentiating factors with regard to the results that were obtained.

The level of motor ability and the social competencies of the examined children with cerebral palsy

It was possible to notice different levels of motor ability in the group of children with CP that was tested. In accordance with the classification proposed by T. Ingram (1966) the following groups were distinguished: 1 -children with a slight degree of physical handicap, 2 -children with a moderate degree of physical handicap, 3 - children with a severe degree of physical handicap. The children from the three groups being compared got differentiated results in the area of social competency.

The most important differences (indeed, we could say that they are vitally important) were to be found in the following categories: independent functioning; physical development; economic activity and work done in the home. Important differences between the different groups appeared in the first category of the ABS scale: these were measured at $p \leq 0.05$. The group of children with a slight degree of disability got the highest results in the independent functioning category, whereas children with severe movement disorders obtained the lowest results. The same was true for the physical development category, in particular with regard to motor ability. A very clear difference became apparent with regard to the level of everyday work done in the home that was carried out, as well as with regard to competencies related to the use of money. Children with a slight degree of physical disability got the best results in the areas of speech development and understanding the concepts of numbers and time, while the results of the children from the third group show that they had somewhat more difficulties in this area. Children with moderate movement-related disorders showed the lowest levels of intensity of types of behaviour that would suggest that the child had appropriate levels of self-control and had been socialised in a satisfactory manner. Concerning the socialisation category, a considerable statistical difference appeared between that group of children and the group of children with slight movement-related disabilities.

Additional disorders and the level of social competency of the examined children with CP

Out of the many disorders that appeared together with Childhood Cerebral Palsy Syndrome in the group of children being tested, the following occurred most frequently: speech disorders (43.33%); vision-related disorders (50.00%); hearing disorders (6.67%); epilepsy (10.00%). A comparative analysis was carried out between the additional disorders noted in children with CP and the data from the ABS scale categories dealing with social competence to see if any correlations could be found. The results obtained by using this procedure were shown by using coefficients from Yule's four-fold correlation.

With regard to speech disorders, an important correlation appeared ($\phi = -0.34$). This correlation only appeared in the speech development category. It showed that a greater exacerbation of speech disorders has a negative influence on the scores of the children affected: they get lower scores in that category. The correlations appearing in some categories (independent functioning, understanding of numbers and time,

work carried out at home and socialisation) make it possible to state the following: a higher level of speech disorder exerts a certain negative influence on the results in areas dealing with/describing the social competence of a child. Economic activity was the only area in which no correlation was found with speech disorders. Only weak correlations could be found between the different categories in the first part of the ABS and visual disorders. However, these correlations showed that these disorders can have a negative effect on the results that children obtain in these categories. A weak correlation was found between children with hearing disorders and the self-control category. Correlations were found between the incidence of epilepsy and the results gained in certain categories in part one of the scale (independent functioning, self-control, responsibility and socialisation).

Conclusion

The results presented in this paper show the social competencies of the children who were tested. These competencies are expressed through independence, doing things for oneself and active movement. It was confirmed that the group of children with cerebral palsy that were tested showed generally much lower levels of social competency than the control group, which was made up of non-disabled children. Very important differences between these two groups appeared in all of the categories that were analysed. These could be most clearly seen in the following categories: physical development; being able to deal with things on one's own and work carried out in the home. Limitations in physical mobility no doubt contributed to these differences. A great deal of diversity could be seen among the results of the children who had CP. This diversity shows that the levels and range of their abilities, especially those concerning doing things on their own, is clearly differentiated. One can see that this statement is well-founded when one takes the different levels of physical mobility of the children with cerebral palsy into consideration.

The children's levels of motor ability was a differentiating factor in several categories. At the same time, the biggest difficulties for children with severe physical disabilities occurred in these areas: doing things for themselves; doing work in the home and economic activity. However, there were no significant differences between children with severe physical disabilities and the other children in the following areas: speech development; understanding of numbers and time; the ability to control oneself and the ability to accept responsibilities. Moreover, the children in this group showed somewhat higher levels of socialisation than children

with moderate levels of physical disability. This shows that severe physical disability does not necessarily have a negative effect on the development of an individual's social competencies.

The analysis of the next factor, the level of intellectual functioning showed a range of very important differences between the groups. The only results which the children with CP from the three groups obtained that were not influenced by their levels of intellectual ability were in these categories: physical development and ability to carry out work in the home. Concerning the social competency categories, the best scores were obtained by children with above-average intelligence.

When the results that the children obtained in the categories pertaining to social competency were compared against data on the children's additional disorders (such as speech disorders, sight-related disorders, hearing disorders and epilepsy), no very important correlations were uncovered. An important correlation appeared between speech disorders and speech development. However, the links between the other categories are weaker. When sight-related disorders and epilepsy were analysed as factors, the only correlations that could be found were weak ones. However, the different ways in which they develop in different people may point to the existence of a link between these types of disorder and the difficulties that the children who were tested had with regard to acquiring some competencies. No similar pattern could be identified when analysing the correlations related to hearing disorders.

The analysis that was carried out showed that it is difficult to grasp the influence that the variables which were analysed have. This is because they occurred in the group being tested in such a variety of ways. However, carrying out this type of research has a great deal of practical importance. Using the results as a base, it is possible to steer children and improve their abilities in such a way that they acquire the highest possible degree of social competency, are able to function in a moderately independent way and are prepared for the process of joining society and becoming integrated.

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Abstract

The article presents the results of tests that were carried out in order to define the relationships between chosen factors that were related to the states of health of the children with CP (such as their levels of intellectual development, their levels of ability with regard to physical movement and occurrences of additional disorders) and the levels of social competency of the children who were tested. When attempting to measure the children's levels of social competency, research was also carried out on non-disabled children for comparative purposes. The research was carried out on a group of 60 children with cerebral palsy and on a control group that was also made up of 60 children. The children tested were between 7 and 11 years old. The AAMD Adaptive Behavior Scale for Children and Adults (ABS) was used during the testing. This scale, created by K.Nihira, R.Foster, M.Shellhaas and H.Leland and modified by J.Kostrzewski, measures the social competency of people with intellectual disability and people who are within the intellectual norm.