

# **Applied Study on the Factors that Influence School Performance in Children with Motor Disabilities Treated in Techirghiol Sanatorium**

Antemir CRISTINA-LAURA<sup>1</sup> & Sava NICU-IONEL<sup>2</sup>

<sup>1&2</sup>Department of Social Sciences, University in Constanta, Romania.

---

**IJMER**

Volume. 8, Issue. 4

December, 2025

---

**Abstract**

Children with special needs in general and those with motor disabilities, in particular, have been subjected to processes such as exclusion, marginalization and discrimination, especially in the school environment where they spend a good part of the time. Applying a personalized intervention program aims to integrate them into the group class, increasing social gradient and increase self-esteem. Children with motor disabilities should be regarded as equals, not with pity or indifference.

**Keywords:** Disabilities, Motor Skills, Self-Esteem, Integration.

© IJMER.  
All rights reserved.

---

## **1. Introduction**

The issue of persons with special needs form a complex semantic field, located in a constantly changing and looking for a uniform definitions, to be both rigorous and do not stigmatize, was of concern in recent years. To be rejected because of what you are, to have the feeling that people avoid you because of a certain race, nationality, religion, social class or, more - infirmity, is a great suffering. It is a concerted effort of implementing the educational opportunity for all children to provide normal living conditions, applicable and useful concept in any society because it can be adapted to any social changes. The objective of this research is to integrate children with disabilities in school and, in fact, a full inclusion of people with disabilities. To achieve this objective, it is necessary to resolve social rejection, experienced by these people faced with the society.

## **2. Methodology**

### **2.1. Objectives**

The objective of this research is to increase school performance of children with motor disabilities by implementing an intervention program specialized in the application of a model of educational psychological diagnosis. Educational intervention program will serve to stimulate motivational and affective-emotional disabled children both individually and within the group class.

Identification of the numerical frequency of pupils with physical disabilities in mainstream schools:

- Evaluation of educational performance of students with physical disabilities compared with that of students considered to be somatically and functionally clean.

- Initial evaluation of academic suitability prognostic function in school performance of children with motor disorders.

- Creating a model of educational psychological diagnosis for children with motor disorders.

- Analysis of psychosomatic factors that intervene in the educational development of children with disabilities.

- Design and implementation of a specialized intervention program realized following the educational diagnosis for compliance to education.

- The final evaluation of school performance; comparison (before and after intervention).

## 2.2. Participants

The research includes a sample of 35 subjects, and upper secondary school students, aged 11-18 years, of which:

-17 subjects with impaired driving mechanical and upper and lower limb (congenital short leg and congenital dislocation of the hip), and deficiencies in posture (kyphosis and scoliosis).

The research takes place in the children's Techirghiol- Sanatorium.

-18 subjects without motor deficiencies.

## 2.3. Instruments: Rosenberg Test for Measuring Self-Esteem Level

A test measuring children's motivation to learn (family induced).

## 2.4. Data Analysis

There is an average of the variable academic performance higher in deficient subjects compared to the healthy, which means better school results of the deficient students compared to that non-deficient and thus confirming at this stage the first hypothesis of the paper.

## 3. Results

Table 1: Subject age.

|         |         |         |
|---------|---------|---------|
| N       | Valid   | 35      |
|         | Missing | 0       |
| Mean    |         | 12,6857 |
| Mode    |         | 11,00   |
| Minimum |         | 11,00   |
| Maximum |         | 17,00   |

Table 2: Level of self-esteem and family induced motivation to deficient pupil compared to those healthy.

|                           | Motor deficiencies | N  | Mean    | Std. Deviation | Std. Error Mean |
|---------------------------|--------------------|----|---------|----------------|-----------------|
| Self-esteem               | YES                | 17 | 27,4118 | 5,84229        | 1,41696         |
|                           | NO                 | 18 | 31,6111 | 4,47396        | 1,05452         |
| Family induced motivation | YES                | 17 | 36,1176 | 4,56731        | 1,10773         |
|                           | NO                 | 18 | 37,7778 | 5,79610        | 1,36615         |

According to Table 2, one can observe a significant difference in the level of self-esteem in deficient students, compared to healthy subjects. Thus, deficient students have a medium level self-esteem (score between 17-33), while healthy students have a high self-esteem (score between 34-40). It therefore confirms, in a first stage, the second hypothesis.

But in terms of motivation induced by the family for better learning, it appears that there are significant differences, even more - healthy students are more strongly influenced / determined by the family to engage in learning.

Table 3: Self-esteem and Family Induced Motivation

|  | Motor deficiencies | N | Mean | Std. Deviation | Std. Error Mean |
|--|--------------------|---|------|----------------|-----------------|
|--|--------------------|---|------|----------------|-----------------|

|                           |     |    |         |         |         |
|---------------------------|-----|----|---------|---------|---------|
| Self-esteem               | YES | 17 | 27,4118 | 5,84229 | 1,41696 |
|                           |     | 18 | 31,6111 | 4,47396 | 1,05452 |
| Family induced motivation | YES | 17 | 36,1176 | 4,56731 | 1,10773 |
|                           |     | 18 | 37,7778 | 5,79610 | 1,36615 |

Table 4: Independent samples t test results for the comparison between subject variables: self-esteem and motivation induced family.

|                           |                             | Levene's Test for Equality of Variances |      | t-test for Equality of Means |        |                 |                 |                       |   |         |
|---------------------------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|---------|
|                           |                             | F                                       | Sig. | t                            | df     | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |         |
|                           |                             |   |      |                              |        |                 |                 |                       | Lower                                     | Upper   |
| Self-esteem               | Equal variances assumed     | 1,406                                   | ,244 | -2,396                       | 33     | ,022            | -4,19935        | 1,75279               | -7,76543                                  | -,63327 |
|                           | Equal variances not assumed |   |      | -2,377                       | 29,977 | ,024            | -4,19935        | 1,76630               | -7,80672                                  | -,59197 |
|                           | Equal variances assumed     | ,663                                    | ,422 | -,937                        | 33     | ,355            | -1,66013        | 1,77097               | -5,26319                                  | 1,94293 |
| Family induced motivation | Equal variances not assumed |   |      | -,944                        | 32,004 | ,352            | -1,66013        | 1,75882               | -5,24272                                  | 1,92245 |

Table 5: Statistical data on the overall average on deficient students, compared to healthy subjects.

|                        | Overall average |
|------------------------|-----------------|
| Mann-Whitney U         | 102,500         |
| Wilcoxon W             | 255,500         |
| Z                      | -2,097          |
| Asymp. Sig. (2-tailed) | ,036            |

Grouping Variable: Motor deficiencies

#### 4. Discussions

The following conclusions emerge from the study group:

The level of performance in school of pupils with motor deficiencies is higher compared to healthy students' school performance (higher grade averages compared to healthy subjects). It therefore confirms first case of the work.

The self-esteem of deficient students is medium, and inferior compared to healthy students, with a significant difference (SD) of 5.84 in deficient and (SD) 4.47 in healthy subjects.

In the applied tests, some deficient students stated that they are named as having "wooden leg", "robot hand" or "lame puppy", which insinuates the fall in the level of self-esteem, in conjunction with the stressors involved in medical rehabilitation.

Also, among deficient pupils, there are cases that believe that they can succeed in life otherwise besides learning in school, namely by "appearance", "look". So, through these conclusions, a premise is created for further research, considering the early confirmation of the two hypotheses.

### References

- Avram Eugen, (2009). "Neuroștiință și dizabilități", Ed. Universitară.
- Enăchescu Constantin, (2008). Enăchescu Liliana, "Psihosomatică", Polirom.
- Frantz Alexander, (2008). "Medicină psihosomatică", Ed. Trei.
- Kranowitz Stock Carol, (2012). "Copilul desincronizat senzorial", Ed. Frontiera.
- Marcelli Daniel, (2003). "Tratat de psihopatologie copilului", București.