

## The influence of some socio-demographic characteristics of young people on their attitudes towards people with physical disabilities

### Abstract

*This article examines the influence of some socio-demographic markers of young people on their attitudes towards people with physical disabilities. The research was carried out on a sample of 257 people in Croatia: 127 university students (final year); and 130 elementary school pupils (final year). Both cognitive and emotional components were taken into consideration in the analysis: the cognitive component in the sense of the segregation of people with physical disabilities and the perception of the position of people with disabilities as tragic; the emotional component in the sense of the feeling of uneasiness in communicating with people with disabilities. The results of the research have shown that the age of respondents is an extremely important component: younger people have less experience and know less about people with physical disabilities, and, consequently, their attitudes are less positive in comparison with the attitudes of university students. In addition, different attitudes were found considering sex as a marker: girls have a more positive attitude towards people with disabilities than do boys. Experience is connected only with the affective component of attitudes. It is of crucial importance to continue work on providing information about people with disabilities and on their further integration into society.*

**Keywords:** attitudes, young people, people with disabilities, cognitive and emotional components of attitudes.

### Introduction

Physical disability primarily implies below-average physical functioning due to various causes and phenomenology (Baftiri, 2000).

Physical disability or, in other words, a manipulative skills disorder, refers to a wide range of various dysfunctions and impairments of the body which are sometimes more evident in the area of the 'crude' manipulative skills of the main part of the body and its extremities, sometimes in the area of the more 'sensitive' manipulative skills like gestures, finger movements, etc., and sometimes in both.

From the medical or etiological aspect, people with a physical disability have impairments, functional insufficiencies or disorders caused by some kind of damage to the central or peripheral nervous system, and they are in constant or occasional need of professional help in education and in acquiring suitable working skills or the skills needed for everyday life. This definition puts stress on the functional limitations of

the bone structure, musculature and neuromuscular system and on various impairments of the body and its extremities.

From the social aspect, the functional insufficiencies and impairments to organs that significantly decrease the capability for involvement in social life of those affected are more emphasised.

From the pedagogical aspect, the physical disorders that make education for children with physical disabilities more difficult or impossible under standard educational conditions are those which are most pointed out (Zovko, 1996).

By changing its classification of disability (ICF) into the International Classification of Functionality, Disability and Health (ICIDH), the World Health Organisation presents the term 'disability' to be the result of the mutual interaction of 'impairment' and the negative influences stemming from the social environment. People with disabilities increasingly use the term 'impairment', whether talking of physical, intellectual or impairments of the senses, in that way signifying the functional limitations, the illnesses themselves or the chronic illnesses of individuals. On the other hand, disability is neither a medical term nor a description of a health condition, but a social construction.

The main characteristic of such a social and interactive model for the term 'disability' is an opposition to the traditional perspective according to which the problem is in the individual with the disability. This opposition is characterised by an understanding that the social environment and behaviour should adapt and should include an individual with a disability, ensuring that he or she has support without prejudices, discrimination or the attachment of any stigma.

People with disabilities demand recognition that it is mainly the social, cultural and material environment in which they live that makes them disabled – not their physical impairment.

The quality of life of people with physical disabilities is not only the result of the process of rehabilitation and medical care, but it is also the process of satisfying needs, the realisation of personal interests and choices, and allowing people to give of their best in an ever-changing society (Bougie, 2003).

## Approach to attitudes

An attitude is an acquired, relatively permanent and stable organisation of positive and negative emotions that are a reaction towards some object and are directed towards its evaluation. (Petz, 1992: 426)

According to Newcomb (1950), 'attitude' can be defined as:

An acquired reaction in a consistently favorable or unfavorable manner – regarding a given object.

This definition includes four important aspects of attitudes (Pennington, 1997: 85):

1. attitudes are learned through experience
2. they make people more disposed to behave in a certain way

3. attitudes and behaviour are subordinate to the principle of consistency
4. a favourable or unfavourable way of behaviour reflects an evaluative component amongst attitudes.

The object of an attitude is significant for an individual in terms of the satisfaction of some of his or her needs, or the realisation of some important goal. Thus, an individual has a positive attitude towards, *inter alia*, those objects, people, situations and ideas which contribute to the achieving of his or her aims. Similarly, an individual has a negative attitude towards everything that he or she considers to be an obstacle to achieving his or her aims. If an object is not important for the fulfilling of a person's needs, a person has no attitude towards it but can have a certain opinion about it which is not accompanied by emotions and therefore does not have any influence on behaviour.

It is difficult to offer a valid and clear definition of attitudes because the term 'attitude' or 'opinion' is often used in everyday language without it having a very precise meaning. Additionally, an 'attitude' is also a 'construct' which refers to certain of the mental processes of a person. Social psychologists define attitudes in two different ways: structural and functional.

The structural approach points to the relations between attitudes and beliefs, values, intentions and behaviour. Thus it reflects a traditional three-component analysis of the cognitive, affective and conative components of attitudes (Katz, 1960). The cognitive component refers to beliefs in connection with the object of an attitude; the affective component refers to an evaluation of the object of that attitude (as good or bad) and thus reflects the 'value' of a person; while the conative component refers to the manner of behaviour towards the object (which may include a person) of an attitude.

Hence, the psychological structure of an attitude consists of the facts we have come to know about the object of that attitude (the cognitive component); emotions (the emotional or affective component); and our readiness to behave, or react, towards the object of that attitude (the conative, or action, component) (Petz, 1992; Klauer, 1991; Cloerkes, 2001).

Numerous conflicts about what is a correct, or right, attitude make us aware of the strong emotional base that attitudes have and are important in understanding stereotypes, prejudice and discrimination.

According to Katz's functional theory (1960), attitudes have three functions: instrumental; defensive; and the function of the manifestation of personal values (the function of self-realisation).

By the instrumental function of an attitude, the existence of the 'usefulness' of that attitude is emphasised; i.e. a certain attitude can help us realise some benefits or, in other words, satisfy some existential, social, self-actualising or other need and, at the same time, avoid some damage. These attitudes are learned instrumentally or according to a model and are changed if they do not bring benefit or if they cause harm.

Defensive attitudes serve to protect individuals or groups from various frustrations and are achieved by an emotionally negative reaction towards the source of the frustration. They affect the cognitive base of an attitude – i.e. they create a negative opinion about the object of an attitude – and are used to justify one's failures, inclu-

ding even aggressive and various forms of criminal behaviour. Such attitudes disappear when the level of frustration and feeling of insecurity decrease.

The function that serves self-realisation is expressed among people who are strong individuals, i.e. have strong motives towards self-actualisation.

The general function of attitudes is to facilitate the process of the judgment or evaluation required for making choices in situations when a person must act, even though those fast judgments need not be accurate.

Understanding the role of attitudes in the process of human adaptation is necessary as they can be shaped and changed since they influence not only our behaviour but also all our cognitive processes: perception; memory; and thinking.

## The measurement of attitudes

So far, various ways of measuring attitudes have been tested, all having a limited level of success and none being superior to the other. We can differentiate between them in the following way:

- non-direct measurements – these are the most objective methods for measuring under which people are not directly asked about their attitudes. The most common are physiological, non-intrusive and projective techniques
- direct measurements – those best known are the various scales of attitude evaluation, since they appear very often in the newspapers. The two best approaches are: the Likert scale (the method of measuring attitudes by adding answers to a significant number of statements which are representative of an attitude being measured); and semantic differential (Pennington, 1997).

Generally, analyses of attitudes – including analyses of attitudes towards people with physical disabilities – are based on a multi-component structure of attitudes: cognitive (‘what do I think?’); affective (‘what do I feel?’); and behavioural (‘how should I behave towards the object of an attitude?’) (Fulgosi-Masnjak and Dalić-Pavelić, 2001).

Leonard and Crawford believe that attitudes are examined on two levels: the social and the personal. On the social level, we examine the question of the treatment of people with disabilities within society and their rights, as well as the question of the differences and similarities with other people in relation to their characteristics that are not connected with the impairment. On the personal level, we examine how we react to people with a disability. Attitudes at the social level present the cognitive, while those at the personal level present the affective, component of attitudes (Pedišić, 2000).

## Socialisation toward attitudes

Many children grow up with a remarkable antagonism toward all that is physically anomalous. Thus, if they have suddenly to face such a phenomenon during their childhood or as an adult, they are not capable of coping with the situation. Of course, people are not born tolerant or intolerant, but both types of behaviour are learned through the processes of socialisation. So, attitudes are formed on the basis of experience, either by direct contact with the object of an attitude or by indirect contact and interaction with the social environment. They are relatively resistant to change and

pretty permanent, although they can change under the influence of new circumstances and new experiences.

Implicit adopted cultural values are activated automatically, such as via mind maps or other schemes which are triggered in response to some stimulus connected with an earlier experience or event. This shows how very difficult it is to control the impact of culturally-determined levels of personality on behaviour (Krizmanić and Kolesarić, 2003).

In the process of the development of a child into a social being, it is important to take into consideration the social context in which the child is brought up – family structure, cultural history and political-economic way of organisation. Cultural norms and values are transferred from generation to generation in a way that children are taught by parents, teachers and other important people such as priests and politicians.

Intolerance toward difference is mostly learned at home, for example when intolerant parents do not allow their child to sit next to a child with a physical disability in school. Their influence is the most important, mostly because it is the first influence in a child's life. The result is that children brought up in a similar way, with similar views brought from home, stick together in the kindergarten, school and the playground.

Educational institutions from kindergartens to universities, and groups of children with whom a child spends most of his or her time, have a very strong influence on the formation of attitudes, even though this is a much weaker influence than the one wrought by the parents. In pre-school institutions, children start to interact with their peers and, in that way, adopt some of the first lessons about human relations. There is irrefutable evidence that kindergarten teachers can play a significant role in initiating healthy children to make friends with children with disabilities (and *vice versa*) and thus help families who have children with disabilities accomplish an important goal – the development of friendly relations for their children. However, a number of educators feel uncertain themselves and have mixed feelings about having a child with a disability in their group; moreover, many are badly, or not at all, trained to work with children with various disabilities (Kostelnik, 2004).

Important socialisation factors, especially for children and young people, are television and, lately, the internet. According to many research studies, it has been proven that exposure to too much violence on TV leads to a 'numbness' towards violence itself, which results in people in general being more ready to tolerate greater levels of violence and aggression in their personal relations and in society overall. Nonetheless, such a powerful moral teacher could be used to develop pro-social behaviour via the presentation of various suitable types of TV programmes (Pennington, 1997).

It may be that a basic reason for a lack of tolerance is that those who should spread tolerance and initiate children and young people into tolerant behaviour do not themselves deal with that issue at all well, just as those who should oppose intolerance most often do not even see its manifestations.

Research studies that are focused on attitudes related to people with disabilities and people with physical impairments state that there are several components which

affect attitudes: Yucker (1994) claims, basing his statement on his research results, that socio-demographic characteristics have an influence on people's attitudes toward people with disabilities; while Cloerkes (1997, 2001) claims that the relationship between socio-economic and demographic characteristics and people's attitudes is – with the exceptions of age and sex – weak. In particular, he states that women, in most cases, show a more positive attitude toward people with disabilities than do men. Similar results have been produced by other scholars (Cloerkes, 1979; Schabmann and Kreuz, 1999; Harasymiw, 1978; Yucker and Black, 1986).

## Problem and aims of the research

### Research problem

The social behaviour of a person is connected with his or her attitudes and so it is very useful to measure and question those attitudes in order to predict the behaviour and thus influence that behaviour with planned measures for changing attitudes.

It is always said that 'the world stays in the hands of the young', so we are interested in seeing what kind of attitudes young people have in relation to people with physical disabilities especially nowadays, when advantage is mostly given to physically attractive individuals capable of work. Questioning people's attitudes toward people with physical disabilities is of practical importance which is evident in becoming aware of the attitudes of people who will be in contact with people with disabilities – whether working in the field of rehabilitation and medical care or in passing relevant legislation concerning people with disabilities.

### Research aims

The aim of this research has been to examine the attitudes of young people – both primary school pupils and university students – toward people with physical disabilities.

Several sub-aims have been set up:

1. to determine the differences between the attitudes of primary school pupils and university students toward people with physical disabilities
2. to determine the differences in the attitudes of male and female pupils or students in relation to people with physical disabilities
3. to determine the differences in the attitudes of pupils and students according to their contacts within their extended families and close relatives.

## Hypotheses

- H1. There are significant differences between the attitudes of primary school pupils and university students toward people with physical disabilities.
- H2. There are statistically significant differences between male and female pupils or students toward people with physical disabilities.
- H3. There are statistically significant differences between the attitudes of pupils and students who have a person with a disability amongst their extended families or close relatives and those who do not.

## Methods of research

### Way of conducting the research

Data were collected via structured survey and research was conducted on the target groups in certain study departments and in classes during regular school lectures. Before distributing the survey questionnaires, the aim of the research was briefly explained to the pupils and students. After receiving a short explanation, each individual answered the survey independently. Students were asked to show their level of agreement or disagreement with the attitudes expressed in each of the statements. The survey period lasted for 15-20 minutes. The motivation of the students was encouraged by explaining to them that, as young people, they and their attitudes are relevant and that they are thus of research interest. Taking part in the research was voluntary and anonymous.

### Sample

The sample consisted of 257 young people: 117 girls (46 %); and 140 boys (55 %). According to the aims set, the sample was divided into two sub-groups:

1. 127 university students from different universities
2. 130 pupils from the oldest primary school class

The age range of those surveyed from the first group was 20 to 35; while the participants from the second group were 14-15 years old.

One-third (32 %) of those surveyed live in the country, while two-thirds (68 %) live in the city.

Nineteen per cent of those surveyed have a person with a physical disability within their family. Thus, the chances are greater for those young people, regardless of whether they want it or not, to have more frequent contact with people who have physical disabilities. It will be shown later in the research if, and how, that fact affects their attitudes toward such people.

Sixty three per cent of those surveyed described their (material) standard of living as medium, 30 % as high and 7 % as low.

### The sample of variables and instruments

Some of the most commonly used scales for examining attitudes towards people with disabilities are the 'Attitudes Toward Disabled Persons Scale' (ATDP; Yucker *et al*, 1960, 1966); the 'Scale of Attitudes Toward Disabled Persons' (SADP; Antonak, 1982); the 'Disability Factor Scale – General' (DFS-G; Siller & Associates, 1967); and the 'Interaction with Disabled Persons Scale' (IDP; Gething, 1991).

Only a few authors have carried out research into the inter-relationships between the above-mentioned scales. In this way, Anita Pedisić and Anita Vulić-Prtorić, in validating their factor structure and reliability, have modified them. The means of responding has been changed – from 1 to 5 – and an object of an attitude that refers to people with physical disabilities has been more closely determined (Pedisić, 2000).

Three criteria variables of attitudes toward people with physical disabilities have also been formed and, all together, 25 variables that have shown reliability and validi-

ty have been retained. Two factors have been interpreted as cognitive while a third factor has been interpreted as affective:

1. the factor of the cognitive component of attitudes: implication of deviant characteristics and segregation of people with physical disabilities (9 variables)
2. the factor of the cognitive component of attitudes: understanding of people with physical disabilities as tragedy (10 variables)
3. the factor of the affective component of attitudes: uneasiness with interaction (6 variables).

All the factors are composed of mostly negative statements, so the results will be interpreted in terms of more or less negative attitudes. The level of agreement with each of the statements in the survey instrument was expressed on the basis of a Likert-type scale with five levels:

- 1 – completely disagree
- 2 – mostly do not agree
- 3 – neither agree nor disagree
- 4 – mostly agree
- 5 – completely agree

The survey also contains a set of socio-demographic variables.

The common problem of all these scales is that they are based on self-expression so those surveyed should be ready to express their own attitudes and admit their sometimes extreme intensity, as well as being aware of their own attitudes, prejudices and stereotypes.

### Data processing methods

Data analyses were carried out for  $n = 257$  surveyed students. After the variables were prepared for statistical analysis, the following analyses and procedures were conducted:

1. the calculation of descriptive statistics by which the measures of central tendency were established: (arithmetic) average; frequency and the percentage of responses; and the measure of variability (standard deviation)
2. the calculation of the level of significance of the differences by applying analysis of variance.

Data were processed with the use of the SPSS statistical package.

## Results of the research and discussion

### Cognitive components of attitudes

#### *Implication of deviant characteristics and segregation of people with physical disabilities – 1st factor of cognitive component of attitudes (CCA1)*

From the data presented in Table 1, we can compare the attitudes of pupils and students on the basis of the averages and standard deviations presented for the particular variables that refer to the first factor of the cognitive component of attitudes.

**Table 1 – Comparison of the arithmetic averages and standard deviations of responses according to age of those surveyed for CCA1**

CCA1 – Implication of deviant characteristics and segregation of people with physical disabilities	School pupils		Students	
	Mean	SD	Mean	SD
1. People with physical disabilities are not capable of making moral decisions	2.0462	1.0701	1.3780	.8158
2. People with physical disabilities should be prevented from having children	2.0462	1.1605	1.5118	.8054
3. Simple, monotonous jobs are suitable for people with physical disabilities	2.6953	1.2709	1.8710	1.1545
4. People with physical disabilities show a deviant personality profile	3.2946	1.2954	2.2520	1.2213
5. People with physical disabilities engage in bizarre and deviant sexual activities	2.5077	.9744	1.5556	.7955
6. People with physical disabilities are equally as intelligent as other people	2.5846	1.2186	1.4803	.7853
7. People with physical disabilities are the same as other people	2.9769	1.3146	2.2080	1.1591
8. It is better that people with physical disabilities live and work in separate communities	3.7538	1.3122	4.3858	.9681
9. One should not expect much from people with physical disabilities	3.2171	1.2372	2.8095	1.0176

Considering the first variable ‘People with physical disabilities are not capable of making moral decisions’, the university students mostly disagreed with that statement ( $M= 1.378$ ) while the attitude of the school pupils was more negative ( $M= 2.046$ ). The standard deviation is significantly higher among primary school pupils which shows that individuals within their group have more divergent opinions while the university students are more homogenous.

Concerning the statement ‘People with physical disabilities should be prevented from having children’, the university students completely disagreed while the school pupils mostly disagreed. The dispersion of attitudes is again much higher among the school pupils and lower among the students. If we have a look at other values of standard deviation, we notice that they differ significantly between students and pupils in such a way that the attitudes of the students are better balanced.

The third variable in this sub-scale is ‘Simple, monotonous jobs are suitable for people with physical disabilities.’ In this case, the standard deviations for both groups greatly differ which means that different opinions exist within the groups. At the same time, the group of students mostly disagreed with that statement ( $M= 1.871$ ) while school pupils neither agreed nor disagreed ( $M= 2.695$ ).

‘People with physical disabilities show a deviant personality profile’ is another statement with which the university students mostly did not agree while the school

pupils neither agreed nor disagreed. Negative attitudes were also evident in the case of the variable ‘People with physical disabilities engage in bizarre and deviant sexual activities.’

The variables ‘People with physical disabilities are equally as intelligent as other people’ and ‘People with physical disabilities are the same as other people’ were positively evaluated by both groups. In other words, both groups agreed with these statements; the attitude of university students was, however, somewhat more positive in comparison with the attitude of school pupils. This first variable is very important because it is known that people with physical disabilities do try to compensate for their physical impediments with their intellectual achievements. The response to the second of these variables, which states that people with disabilities are the same as other people, shows that respondents were able to recognise the similarities between people with and without disabilities and not only concentrate on the differences.

Concerning the statement ‘It is better that people with physical disabilities live and work in separate communities’, the university students completely disagreed while the school pupils mostly disagreed. This statement is related to the extreme segregation of people with physical disabilities, so the rejection of such an attitude provides a good basis for the integration of people with disabilities into all levels of social activity.

The group of students neither agreed nor disagreed ( $M = 2.80$ ) with the statement ‘One should not expect much from people with physical disabilities’, as did the school pupils ( $M = 3.127$ ). The attitude of the students was more positive.

According to these results, we conclude that students do not consider people with physical disabilities to be useless and that they believe that they can contribute to the whole society.

Table 2 shows that university students mostly did not agree with the statements of the first factor of the cognitive component of attitudes while school pupils, on average, neither agreed nor disagreed with the same statements. One can also notice that the answers of university students were more homogeneous in comparison with those of school pupils.

**Table 2 – Presentation of the average values of the arithmetic means and standard deviations on the CCA1 scale**

Average value on CCA1 scale	Mean	SD
University students	2.153	.518
Primary school (final year) pupils	2.788	.575

*Understanding of people with physical disabilities as tragedy (CCA2)*

**Table 3 – Comparison of the arithmetic means and standard deviations in responses according to the age of those surveyed for CCA2**

CCA2 – Understanding of people with physical disabilities as tragedy	School pupils		Students	
	Mean	SD	Mean	SD
10. People with physical disabilities just need a suitable environment and the opportunity to develop criminal tendencies and act accordingly	3.7154	1.3482	2.8095	1.0176
11. People with physical disabilities are very much like children	2.1923	1.1884	4.1654	.9575
12. The majority of people with physical disabilities feel sorry for themselves	3.0615	1.1327	1.4567	.7843
13. The majority of people with physical disabilities worry too much	2.7857	1.4063	2.5669	.9478
14. It is almost impossible for a person with a physical disability to lead a normal life	2.9923	1.3497	2.1654	1.0747
15. People with physical disabilities spend the majority of their time on themselves	2.6977	1.2222	1.7874	.9564
16. People with physical disabilities can be more easily agitated than others	3.1385	1.2925	2.1120	1.0256
17. People with physical disabilities cannot have a normal social life	2.3876	1.2705	2.5794	1.1339
18. The majority of people with physical disabilities are people who are not as good as others	3.0000	1.3050	1.8583	.9405
19. People with physical disabilities are very often ill-tempered	2.3488	1.1769	2.6667	1.1100

University students were indecisive ( $M= 2.801$ ) over the statement ‘People with physical disabilities just need a suitable environment and the opportunity to develop criminal tendencies and act accordingly’, while school pupils supported this statement ( $M= 3.715$ ). The standard deviation of the responses is similar for both groups and rather high. An overview of the table reveals that the dispersion of the responses in the case of the other statements is as high in both groups which indicates that both groups approached the statements with a similar degree of divergence.

‘People with physical disabilities are very much like children’ is a statement with which the students mostly did not agree while the school pupils neither agreed nor disagreed. We believe that final year primary school pupils recognise people with physical disabilities more as those who need help than those who can take care of themselves.

University students did not agree ( $M= 1.456$ ), while primary school pupils were indecisive ( $M= 3.061$ ), in the case of the variable ‘The majority of people with physi-

cal disabilities feel sorry for themselves.’ Both groups are indecisive in the case of yet another variable: ‘The majority of people with physical disabilities worry too much.’ In these cases, we wonder whether those surveyed have really met people with physical disabilities who are worried or feeling self-piteous or whether they draw their conclusions by thinking of themselves – believing that they would react in such a way in such a situation. ‘People with physical disabilities are very often ill-tempered’ is a variable which was not supported by either students or school pupils. This is one of the rare variables where school pupils expressed a lower value than did the students.

University students mostly disagreed ( $M=2.165$ ), while primary school pupils were mostly indecisive ( $M=2.992$ ), when considering the statement ‘It is almost impossible for a person with a physical disability to lead a normal life’. Comparing the response to this statement with that to variable 17, which states that ‘People with physical disabilities cannot have a normal social life’, the responses of both groups show that they mostly disagreed with the second statement (students  $M=2.579$ ; school pupils  $M=2.387$ ). Hence, we can conclude that those surveyed do not believe that people with physical disabilities cannot have a relatively normal life, and a normal social life in particular.

The statement ‘People with physical disabilities spend the majority of their time on themselves’ was mostly not supported by the university students while the school pupils were again more indecisive.

The statements ‘People with physical disabilities can be more easily agitated than others’ and ‘The majority of people with physical disabilities are people who are not as good as others’ again show the indecisiveness of the younger pupils: they supported both statements while the university students mostly disagreed.

**Table 4 – Presentation of the average values of the arithmetic means and standard deviations on the CCA2 scale**

Average value on CCA2 scale	Mean	SD
Students	2.346	.620
Pupils	2.820	.683

The situation here is similar to that revealed in Table 8: the university students mostly did not agree with statements which are related to an understanding of people with physical disabilities as tragedy, while school pupils were indecisive as to which attitude to adopt. The standard deviation of responses on the CCA2 scale is again higher for school pupils than for students.

Affective component of attitudes

**Table 5 – Comparison of the arithmetic means and standard deviations of responses according to the age of those surveyed for ACA**

ACA – Uneasiness with interaction	Pupils		Students	
	Mean	SD	Mean	SD
20. I feel uneasy because I don't know how to help them	3.1538	1.2847	2.7008	1.1973
21. I can't help looking at them	2.3769	1.2089	2.0157	1.1614
22. I am unsure because I don't know how to behave	2.9922	1.2900	2.5591	1.2640
23. I feel uneasy and it is difficult for me to relax	2.6434	1.4296	2.2205	1.1263
24. I am afraid to look those people straight into their eyes	2.4419	1.3573	1.7165	.9587
25. I try to have as little contact as possible with people with physical disabilities and finish it as soon as possible	2.2713	1.2295	1.8254	1.0126

People in neither group denied completely that they feel uneasy on the grounds that they do not know how to help people with physical disabilities, while people mostly disagreed that they cannot help looking at them. They neither agreed nor disagreed that they felt unsure because they did not know how to behave around people with disabilities. University students mostly disagreed with the statement 'I feel uneasy and it is difficult for me to relax', certainly in comparison to pupils from primary school who were indecisive on that score. Students also mostly disagreed that they are afraid to look straight in the eyes of people with disabilities, and that they tried to have as little contact with them and to finish it as soon as possible. The whole ACA scale shows a high level of standard deviations which points to the diversity of answers of those surveyed.

Table 6 shows that university students mostly did not agree with the statements on the scale of the affective component of attitudes, while school pupils were more indecisive. The diversity of the answers is again higher among school pupils.

**Table 6 – Presentation of the average values of the arithmetic means and standard deviations on the ACA scale**

Average value on ACA scale	Mean	SD
Students	2.168	.834
Pupils	2.644	.865

If we compare closely the average figures on all three scales (Tables 2, 4 and 6), it can be noticed that the diversity of answers is lowest on the CCA1 scale, then on CCA2 and finally on ACA. University students gave more positive and homoge-

neous answers on all three scales than did school pupils. Students generally have positive attitudes toward people with disabilities while primary school pupils are mostly indecisive. The lowest values can be found on the CCA1 scale, then on ACA, and are highest on CCA2.

#### Analysis of variance according to age, sex and experience of disability within the family

Examining Table 7, we can notice the significant statistical differences between the answers of the students and the younger pupils referring to all the variables of the first factor of the cognitive component of attitudes. Those variables are the ones connected to the implications of deviant characteristics and the segregation of people with physical disabilities. In comparison with Table 2, we can notice that the attitudes of the primary school pupils are more negative than are those of the university students.

The analysis of variance shows that there are statistically significant differences in the answers of those surveyed according to their sex, mostly in the cases of those variables referring to the implications of deviant characteristics and the segregation of people with physical disabilities. Taking all the variables together, girls show less negative attitudes than do boys.

In the case of the first cognitive factor, the analysis of variance shows only two answers which significantly differ statistically. Those surveyed who have a person with a physical disability within his or her family differ from other respondents over the following statements: 'People with physical disabilities engage in bizarre and deviant sexual activities' and 'Simple, monotonous jobs are suitable for people with physical disabilities.'

**Table 7 – Analysis of variance for CCA1 scale**

CCA1 scale – deviant characteristics and segregation of people with physical disabilities	Age		Sex		Disability within family (close relatives)	
	F	Sig.	F	Sig.	F	Sig.
1. People with physical disabilities are not capable of making moral decisions	31.584	<b>.000</b>	12430	<b>.001</b>	2.054	.153
2. People with physical disabilities should be prevented from having children	18.310	<b>.000</b>	5.684	<b>.018</b>	3.047	.082
3. Simple, monotonous jobs are suitable for people with physical disabilities	28.993	<b>.000</b>	11.260	<b>.001</b>	4.545	<b>.034</b>
4. People with physical disabilities show a deviant personality profile	43.873	<b>.000</b>	4.635	<b>.032</b>	.390	.533

**The influence of some socio-demographic characteristics of young people on their attitudes towards people with physical disabilities**

CCA1 scale – deviant characteristics and segregation of people with physical disabilities	Age		Sex		Disability within family (close relatives)	
	F	Sig.	F	Sig.	F	Sig.
5. People with physical disabilities engage in bizarre and deviant sexual activities	73.082	<b>.000</b>	3.312	.070	6.412	<b>.012</b>
6. People with physical disabilities are equally as intelligent as other people	74.189	<b>.000</b>	3.596	<b>.059</b>	.156	.693
7. People with physical disabilities are the same as other people	24.472	<b>.003</b>	.135	.713	.038	.845
8. It is better that people with physical disabilities live and work in separate communities	19.231	<b>.000</b>	5.041	<b>.026</b>	2453	.119
9. One should not expect much from people with physical disabilities	8.232	<b>.004</b>	.040	.842	1.829	.177

Considering the second factor of the cognitive component of attitudes which refer to an understanding of people with physical disabilities as tragedy (Table 8), the answers of those young people surveyed differ significantly in almost all the variables according to their age. If we compare this with the figures in Table 4, we can once again notice that primary school pupils see people with physical disabilities in a more tragic light. The only exception is the variable ‘People with physical disabilities are very often ill-tempered’.

Differences in the responses considering the second factor of the cognitive component of attitudes are also significantly greater on the basis of sex. Statistically significant differences can be found in analysing all the statements except for ‘People with physical disabilities just need a suitable environment and the opportunity to develop criminal tendencies and act accordingly’; girls and boys did not express differences in relation to this statement.

There are, however, no differences in the answers between those respondents who have a person with a physical disability within their family and those who do not, with the exception of the following three variables: ‘People with physical disabilities are very much like children,’ ‘The majority of people with physical disabilities feel sorry for themselves,’ ‘The majority of people with physical disabilities worry too much.’ Those who have a person with a physical disability within the family have more positive attitudes.

Table 8 – The analysis of variance for the scale CCA2

CCA2 scale – Understanding of people with physical disabilities as tragedy	Age		Sex		Disability within family	
	F	Sig.	F	Sig.	F	Sig.
10. People with physical disabilities just need a suitable environment and the opportunity to develop criminal tendencies and act accordingly	9.477	<b>.002</b>	6.119	<b>.014</b>	.453	.502
11. People with physical disabilities are very much like children	34.133	<b>.000</b>	8.762	<b>.003</b>	8.684	<b>.004</b>
12. The majority of people with physical disabilities feel sorry for themselves	14.380	<b>.000</b>	4.791	<b>.030</b>	5.037	<b>.026</b>
13. The majority of people with physical disabilities worry too much	15.556	<b>.000</b>	7.195	<b>.008</b>	3.589	<b>.059</b>
14. It is almost impossible for a person with a physical disability to lead a normal life	67.902	<b>.000</b>	13.302	<b>.000</b>	1.592	.208
15. People with physical disabilities spend the majority of their time on themselves	17.061	<b>.000</b>	5.498	<b>.020</b>	1.109	.293
16. People with physical disabilities can be more easily agitated than others	13.503	<b>.000</b>	7.012	<b>.009</b>	1.728	.190
17. People with physical disabilities cannot have a normal social life	14.319	<b>.000</b>	9.343	<b>.002</b>	2.836	.093
18. The majority of people with physical disabilities are people who are not as good as others	4.817	<b>.029</b>	.054	.816	.262	.609
19. People with physical disabilities are very often ill-tempered	1.279	.259	4.279	<b>.040</b>	.348	.556

The analysis of variance shows that the answers of school pupils and those of university students are statistically different in relation to the affective component of attitudes. Primary school pupils agree more with the statement that they cannot help looking at people with physical disabilities, that they are afraid to look them directly in their eyes and that they try to have as little contact as possible with them.

In contrast, the answers of the female and male young people surveyed differ only in the case of one variable: males agree in more cases with the statement that they try to have as little contact as possible with people with physical disabilities and to finish it as soon as possible.

The affective factor indicates the experience of unease during interactions with people with disabilities and statistically significant differences occur in relation to it on the basis of the presence in the young person's family of someone with a physical disability, which is not unusual. We can see that those who do not have people with physical disabilities within their family feel more uneasy in their presence because they do not know how to help them or how to behave around them, so generally feel more uncomfortable in their company.

**Table 9 – The analysis of variance for the scale ACA**

ACA – Uneasiness with interaction	Age		Sex		Disability within family	
	F	Sig.	F	Sig.	F	Sig.
20. I feel uneasy because I don't know how to help them	8.544	.004	1.889	.171	9.913	.002
21. I can't help myself looking at them	5.961	.015	1.920	.167	.243	.622
22. I am unsure because I don't know how to behave	7.363	.007	2.113	.147	7.556	.006
23. I feel uneasy and it is difficult for me to relax	6.900	.009	.878	.350	7.547	.006
24. I am afraid to look those people straight into their eyes	24.322	.000	1.404	.237	.823	.365
25. I try to have as little contact as possible with people with physical disabilities and finish it as soon as possible	9.969	.002	7.055	.008	1.388	.240

After the statistical differences were determined via variance analysis for each particular statement, we tried to check the scales as a whole in relation to these three socio-demographic characteristics:

**Table 10 – Results of the analysis of variance according to age**

Scales	Age	Mean	SD	F	P
CCA1	University students	2.1537	.5184	82.300	.000
	Primary school pupils	2.7884	.5756		
CCA2	University students	2.3463	.6202	32.353	.000
	Primary school pupils	2.8205	.6833		

Scales	Age	Mean	SD	F	P
ACA	University students	2.1680	.8349	20.027	.000
	Primary school pupils	2.6447	.8654		

In Table 10, very significant differences are shown according to age (which we have already discussed in the example of each particular variable). We can see that the values of the arithmetic means and standard deviations are lower for university students on all three scales. This research confirms, and is in harmony with, previous research studies which report that age plays a very important role in the differentiation and formation of attitudes toward people with physical disabilities (Harasymiw, 1978; Yuker and Black, 1986; Pennington, 1997; Pedisić, 2000; Cloerkes, 2001; Kostelnik, 2004; Leutar and Štambuk, 2006).

**Table 11 – Results of the analysis of variance according to sex**

Scales	Sex	Mean	SD	F	P
CCA1	M	2.5741	.6118	6.605	.011
	F	2.3684	.6417		
CCA2	M	2.7168	.7103	11.013	.001
	F	2.4281	.6417		
ACA	M	2.5121	.8519	4.149	.043
	F	2.2877	.9043		

On all the three scales, statistically significant differences appear concerning the sex of those surveyed. If we analyse the arithmetic means, we can notice that the values for females are lower than they are for males: females are more sensitised toward people with physical disabilities. Previous research studies have also already reported this finding (Harasymiw, 1978; Yuker and Black, 1986; Cloerkes, 2001).

**Table 12 – Results of the analysis of variance according to experience with physical disability within the family**

Scale	Family	Mean	SD	F	P
CCA1	Yes	2.3310	.6061	3.196	.075
	No	2.5137	.6356		
CCA2	Yes	2.4149	.6217	3.433	.065
	No	2.6222	.7045		
ACA	Yes	2.1122	.8453	7.041	.008
	No	2.4798	.8774		

We have already mentioned the previously conducted research studies and the importance of experience with disability in terms of the formation of attitudes toward people with physical disabilities (Pennington, 1997; Pedisić, 2000; Leutar and Štambuk, 2006). In Table 12, statistically significant differences connected to the experience of disability within one's family are presented as regards the affective component of attitudes. The arithmetic means show that, in this particular area, people who do not have experience of disability within their families have more of an indecisive attitude toward people with physical disabilities.

## **Verification of hypotheses and conclusions**

At the outset of this research, we suggested three hypotheses that express an opinion on the attitudes of young people toward people with physical disabilities, as well as of the connection between those attitudes and some of the socio-demographic characteristics of those young people. Now, after the research has been carried out and its results analysed, it is possible to accept or reject those hypotheses.

The research started with hypothesis H1, in which it was supposed that significant differences would exist between the attitudes of primary school pupils and those of university students toward people with physical disabilities. University students should be on the higher plane of creating moral judgments (conventional) and should be preparing for a more advanced level in which they understand that justice should be the only measure for each individual within society. In contrast, primary school pupils have just entered the period of youth, learning the most difficult social rules and leaving behind them the pre-conventional phase in the development of morality.

Apart from university students being older and having more experience with different kinds of people in general – most probably also with people with physical disabilities, which can only have a positive effect on their attitudes – they have also spent more years in the education system. Many researchers have focused on establishing the factors which affect the formation of attitudes or are related to attitudes toward people with physical disabilities. One of those factors is indeed education, expressed in the number of years spent in school, and that number does correlate with more positive attitudes (Antonak, 1982; Gething, 1994; Yaker, 1994; Pedisić, 2000).

In examining the results, we can conclude that the results we have obtained from the students statistically differ in a major way from the results obtained from school pupils, especially in the case of the implications of deviant characteristics, the segregation of people with physical disabilities and the understanding of people with physical disabilities as tragedy. The attitudes of university students are less negative than are those of primary school pupils. To conclude, the first hypothesis (H1) is confirmed.

Hypothesis H2 – that there is a statistically significant difference between young people of different sex toward people with physical disabilities – is also confirmed. It seems that girls are more sensitised than are boys and more often opposed to applying deviant characteristics to people with physical disabilities. Girls do not view these people as less tragic than boys, because statistically significant differences were found only in the case of three of the variables in this set. Both girls and boys feel equally uneasy in interacting with people with physical disabilities. However, the va-

lues taken across the three scales showed that there were statistically significant differences overall, which confirms our second hypothesis.

An important correlate and predictor of attitudes toward people with physical disabilities is increased contact with these people (referring both to frequency and to quality). Quality communications decrease feelings of uneasiness at interacting with such people, they change the stereotypes and people acquire more positive attitudes in general. However, more frequent contact with people with physical disabilities has its greatest influence on the affective component of attitudes in such a way that it decreases feelings of uneasiness with interaction. However, positive experiences with one or more people with physical disabilities do not transfer to the whole group (Pedišić, 2000). Such a constellation has also been confirmed in this research study. Statistically significant differences found in both the factors of the cognitive component of attitudes can be neglected while, in the case of the affective component, differences are more significant. Those surveyed who had experience with communicating with people with physical disabilities do not feel uneasy or unsure in their presence because they had learned how to communicate better with them.

By initiating inclusion, there is a better chance to free people from such fear, while more frequent contact should initiate and advance friendship among different groups. This is the way to change people's attitudes toward people with physical disabilities because people are motivated to avoid inconsistency whenever possible; it is hard to retain a negative attitude toward a certain group of people and, at the same time, have friends in that same group.

By disseminating information systematically, and especially by direct experience, we can greatly influence the process of the formation of consciousness and an attitude of acceptance of people with special needs, among whom are people with physical disabilities.

Speaking of consciousness, this has not been developed on many levels.

It is never easy to try to lessen intolerance; changes are slow. Nevertheless, it is important to try to initiate changes at individual, interpersonal and inter-group levels. We can start from wherever we want.

This research has clearly shown that there are connections between attitudes toward people with physical disabilities on the basis of the factors of age, sex and level of experience in communicating with such people.

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