

## Medical students' perceptions of people with disabilities

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### ABSTRACT

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**Introduction:** Little is known about associations of attitudes of medical students towards people with disabilities and their life satisfaction and empathy.

**Purpose:** To assess the social perception of people with disabilities by medical students.

**Materials and methods:** The present study interviewed 451 medical students of the Medical University of Białystok regarding their perceptions of people with disabilities, especially in light of their own satisfaction with life and empathy. We used the following questionnaires: the original questionnaire about attitudes towards people with disabilities, The Satisfaction with Life Scale (SWLS), and Empathy Understanding Questionnaire (KRE).

**Results:** Attitudes towards people with disabilities people were generally positive. Almost 40% of respondents expressed a willingness to help for people with disabilities. In general, disabled people

do not have full access to all fields of social (63.4%) and professional (63.2%) life. At the same time, disabled people tend to marry (84.9%), have children (82.1%), work (88.2%), and drive cars (76.1%). Respondents were convinced that contact with a disabled person teaches ways to help others (42.1%), and in fact 58.6% of respondents reported having decided to participate with helping the disabled. The average life satisfaction of the students was  $22.7 \pm 5.3$  which indicates that the respondents are satisfied with their lives. The empathy level of respondents was 66.97 points  $\pm 2.98$ , which indicates average level of empathy.

**Conclusions:** This study shows that students' perception of people with disabilities depends upon how the students viewed disabled people's, life satisfaction and empathy.

**Key words:** Medical students, attitudes, people with disabilities, life satisfaction, empathy

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## INTRODUCTION

The World Health Organization (WHO) recently reported that nearly a billion people in the world (15% of the world's population) each suffer from at least one kind of disability [1]. Among them, nearly 200 million suffer from severe disability. These data suggest that compared to statistics from 1970, the world's disabled population has increased by 5% [1]. In Poland the results of the 2011 census reported that the number of people who declared a limited ability to perform simple actions basic for their age and/or who had a valid medical certificate qualifying them for inclusion in the disabled community was 4.697.500, which constitutes a total rise in population from 12.2% to 14.3% from 2002 [2]. The number of disabled people in 2011 was 3.131.900 [2]

Disability "includes various functional limitations of persons in every society" that result "from damage to the ability to perform particular activities in a way that is regarded as normal, typical in human life [3]. The limitations may be permanent or temporary, total or partial" or "they may refer to the sensory, physical and psychical sphere."

At the same time has focused on the fact that for many years people have tried to define "a person with disability" [4]. Recent suggestions emphasize the social dimension of disability, or what disability means in relation to social relationships and the social roles that a person may have that are caused by further integrating people with disabilities into society, as well as a postulate that disability should be compensated, reduced, or levelled. Other debates contest how the general definition of disability relates to detailed definitions of particular kinds of disabilities.

According to Kowalik [5], disability is based on the "distinction between disability and dysfunctionality. Disability is described as lost efficiency of an organism, its systems or organs. Dysfunction is a predisposition resulting in a problematic situation, i.e. the one in which there is no balance between external conditions in which a person lives, and the person's capabilities. From the practical point of view, the kind of dysfunction may be decided by in what kind of problematic situations a person with disabilities will find himself or herself."

According to Kossewska [6], over the centuries the image of the disabled has depended on predominant social and philosophical views. Initially, it consisted in discrimination, isolation or segregation, or even euthanasia (e.g. in Germany's Nazi regime), while today it consists of integration of the disabled with the rest of society.

Society provides the greatest barriers to the quality of life for disabled people in the community. These barriers may be physical,

financial, or attitudinal with ongoing discrimination and prejudice shown to people who are disabled [7]. People have different attitudes towards persons with disabilities: emotional, volitional and intellectual, and within each of them: positive, intermediate and negative. A positive emotional attitude means showing kindness and sympathy. An intermediate emotional attitude – compassion, pity, indifference. A negative emotional feeling – aversion to disability [8,9].

As made clear by the above data, it is important to study the attitudes of Polish society toward the disabled population.

This study aims to assess the social perception of people with disabilities by medical students, who encounter this group as patients in their everyday work.

## MATERIALS AND METHODS

The present study interviewed 451 medical students of the Faculty of Health Sciences at the Medical University of Białystok in Poland regarding their perceptions of people with disabilities, especially in light of their own satisfaction with life. Interviews were conducted upon obtaining permission from the Bioethical Committee of the Medical University of Białystok. Each investigator distributed the questionnaires to students and asked them to complete the questionnaires on a voluntary basis.

### *Questionnaire*

We used an original questionnaire consisting of two parts; the first addressed demographics and included seven questions regarding age, sex, place of residence, professional experience, education, specialization, and place of work and occupation. The second part was more thorough and consisted of 32 questions addressing respondents' understanding of 'disability', feelings aroused by disabled people, opinions on marriage and having children, kinds of disabilities they encounter in everyday life, society's attitude toward disabled people, their professional and social lives, willingness to take care of disabled people, the aims of social campaigns for the disabled, their perceptions of privileges for people with disabilities, and the benefits of coming into contact with such people.

### *The Satisfaction with Life Scale (SWLS)*

Respondents were additionally assessed by means of the Satisfaction with Life Scale (SWLS). The SWLS is part of the public domain and therefore all professionals (i.e. researchers and practitioners) are free to use it without permission or charge, as long as they give credit to the authors of the scale<sup>10,11</sup>. We used the Polish version of the SWLS, which is a global measure of life

satisfaction. Cronbach's  $\alpha$  was determined to be 0.81 [10,11].

The SWLS is a short, five-item instrument designed to measure global cognitive judgments regarding satisfaction with one's life. It takes approximately 1 minute to complete. The five items are designed to evaluate respondents' opinions on a seven-point scale, in which 7 = strongly agree; 6 = agree; 5 = slightly agree; 4 = neither agree nor disagree; 3 = slightly disagree; 2 = disagree; and 1 = strongly disagree. Scoring was kept continuous (i.e. scores were summed for each item) with the following benchmarks for score ranges: 31 to 35 = extremely satisfied; 26 to 30 = satisfied; 21 to 25 = slightly satisfied; 20 = neutral; 15 to 19 = slightly dissatisfied, 10 to 14 = dissatisfied; and 5 to 9 = extremely dissatisfied [10,11].

### ***The Empathic Understanding of Others Questionnaire (KRE) (Węgliński, 1983)***

Empathy Understanding Questionnaire (KRE) by Węgliński was used in study, based on empathy conception as an emotional-behavioral syndrome [12,13].

KRE is based on a concept of empathy understood as an emotional-cognitive syndrome. This tool is used to measure empathy understood as "mental ability motivating an individual to seek closeness with other people by emotional harmony and understanding of mental states and experiences of other people, understanding another human as if being him or her". The questionnaire was used with a wide range of age groups and applications. The participants completed the Polish version. For the purpose of this article, the KRE has been translated into English. This questionnaire distinguishes five empathic trends as follows: emotional understanding of others; sympathizing with the other's pleasant and unpleasant experiences; sensitivity to the experiences of others; the ability to empathize with the experiences of others; and a willingness to sacrifice for others. The questionnaire included 33 items to be answered by the respondent using the following responses: 'yes,' 'rather yes,' 'rather no,' and 'no'. A four-grade scale for assessing each statement inventory was used to calculate the results, using conversion factors in accordance with formula A or B, depending on the respondent's gender and the recommendations of the questionnaire's author. The final results range between 0 and 99, where a higher result means a higher degree of empathy. The reliability indicator (Cronbach's  $\alpha$ ) was 0.77; the scale stability indicator was 0.66 [12,13].

## **RESULTS**

A total of 451 respondents, all of whom were medical students, completed the questionnaire. Respondents' ages ranged from 19 to 25; 22.6% were aged 19 years; 34.1% were 20; 22.6% were 21; 11.5% were 22; 8.9% were 23; and 0.22% were 25. By gender, 57% of respondents were women and 43% were men. By place of residence, nearly 39% lived in villages and 61% lived in urban areas.

Respondents were assessed by means of the SWLS, for which the mean score was 22.7 points  $\pm$  5.3, meaning that respondents were quite satisfied with their lives. Table 1 presents details of responses to the SWLS.

Students were assessed by means of the KRE, for which the mean score was 66.97 points  $\pm$  2.98, meaning that respondents had average levels of empathy.

The first words that came to respondents' minds to describe people with disabilities were: unhappy and incapable (87.6%), sufferers (66.9%), and people with a difficult lives (59.6%),

The majority of students were convinced that disabled people can get married (84.9%), have children (82.1%), work (88.2%), and drive cars (76.1%). Details are shown in Table 2.

Most of the respondents declared to help disabled people in their everyday matters (e.g., shopping, house works, small repairs), however more often the respondents (62.3%) wanted to help disabled youth or partially-sighted people. Furthermore, only 5.8% of the students declared to help motor disabled people. Details are shown in Table 3.

Most of the medical students (n=215) reported that society did not provide assistance to the disabled people. Details are shown in Table 4. The students were satisfied with their lives and had a high level of empathy. Most of the respondents (n=264) declared to help disabled people in their everyday matters (e.g., shopping, house works, small repairs). These respondents were satisfied with their lives and had a high level of empathy. Significant correlation ( $R=0.124$ ;  $p=0.008$ ) between willingness to help disabled people in their everyday matters and empathy level was found.

Respondents who favored integration model of disabled persons in society - 61.7% - were more satisfied with their lives and had a high level of empathy. On the other hand, 38.3% of respondents advocating the separation model of the functioning of a disabled person in the society lower levels of SWLS and empathy.

**Table 1.** Results of the respondents' assessment by the satisfaction with life scale (SWLS)

SWLS Problem	Answer/ number of people N=451						
	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
In most ways my life is close to my ideal	16	14	95	120	121	61	24
The conditions of my life are excellent	8	26	46	198	60	83	30
I am satisfied with life	10	42	16	89	70	118	106
So far I have gotten the important things I want in life	18	54	89	82	89	50	69
If I could live my life over, I would change almost nothing	12	57	48	48	37	108	141

**Table 2** Opinions of the respondents on selected aspects of functioning of people with disabilities

Should a person with disability..	ANSWERS/%		
	YES	NO	DIFFICULT TO SAY
Get married	84.9%	7.7%	7.4%
Have a children	82.1%	10.2%	7.7%
Work	88.2%	7.1%	4.7%
Drive a car	76.1%	17.5%	6.4%
Live in a separate house	39.2%	49.4%	11.4%

**Table 3.** Declaration of help, depending on a group and type of disability

Type of disability	Yes	No	Difficult to say
<b>Group of people with disabilities</b>			
Disabled children	48.6%	<b>44.1%</b>	7.3%
Disabled youth	<b>62.3%</b>	22.4%	15.3%
Disabled adults	56.9%	22.8%	20.3%
Disabled old people	51.2%	24.2%	<b>24.6%</b>
<b>Type of Disability</b>			
Mental deficiency	37.9%	34.8%	28.1%
Protracted disease (e.g. cancerous disease, SM)	42.6%	27.7%	29.7%
Partially-sighted	<b>64.5%</b>	16.9%	18.6%
Blind	51.7%	22.6%	25.7%
Hard of hearing	57.2%	<b>33.1%</b>	9.7%
Deaf	58.1%	15.8%	26.1%
Visible deformation of a body	33.9%	29.3%	36.8%
Disabled mobility	5.8%	21.7%	<b>72.5%</b>
Speech impediment	51.2%	20.4%	28.4%

**Table 4.** Correlations between questions about homeless and life satisfaction and empathy of the participants

	SWLS	R	P value	KRE	R	P value
<b>Do society is ready to provide assistance to the disabled? Yes 165 No 215</b>	21.2±6.3	-0.029	0.526	71.3 ±3.4	-0.001	0.973
<b>Would you help person with a disability in everyday life matters (shopping. help in the home. small repairs .? Yes 264 No 146</b>	22.0± 4.8	-0.005	0.908	69.1± 4.2	0.124	0.008
<b>What model of the functioning of a disabled person in society is more suitable? Integration - yes; separation no</b>	21.0± 6.0	-0.003	0.993	72.6±7.1	0.026	0.571
<b>What feelings arouses a disabled person ?</b>						
A. willingness to help - 192	21.6 ±5.6	-0.012	0.797	63.6±1.2	0.032	0.496
B. empathy - 82	27.3±4.6	-0.095	0.043	64.5±8.8	0.072	0.124
C. to know such a person -103	21.5± 6.3	-0.031	0.502	62.6±8.9	-0.067	0.154
D. willingness to address problems of others – 86	20.6±5.8	0.104	0.797	64.3±5.6	0.060	0.200
E. pity – 55	20.2±5.7	0.093	0.027	61.4±4.5	-0.068	0.148
F. compassion - 22	21.3±6.0	0.075	0.048	62.8±3.2	-0.056	0.288
G. anger – 51	20.0±5.3	0.072	0.111	50.8±6.2	0.061	0.126

The feelings that disabled people aroused in respondents were (Table 4):

- A. willingness to help them (42.6%), declared by people rather satisfied with their lives. –
- B. empathy (18.2%), declared by people strongly satisfied with their lives, Negative (R= -0.095; p=0.043) correlation between empathy and SWLS was found.
- C. willingness to get to know them (22.8%), declared by people rather satisfied with their lives and having average level of empathy.
- D. willingness to be interested in their problems (19.1%), declared by people rather satisfied with their lives and having average level of empathy.
- E. pity (12.2%), declared by people rather satisfied with their lives and having average level of empathy.
- F. compassion (4.9%), declared by people rather satisfied with their lives and having average level of empathy. Positive (R= 0.075;p=0.048) correlation between compassion and SWLS was found.
- G. anger (11.3%), declared by people strongly dissatisfied with their lives and having lower level of empathy.

## DISCUSSION

This study reveals that students' perceptions of people with disabilities correlates with how the students view the disabled person's own satisfaction with life. A similar proportion of females and males participated in this study, which yielded results that are consistent with previous findings [14,15].

Tervo *et al.* [15] found that first-year medical students from the United States and Canada held similar attitudes toward persons with disabilities. Compared with norms, medical students generally score more positively on the Attitude Toward Disabled Persons (ATDP) Scale and Rehabilitation Situations Inventory (RSI). However, medical students' attitudes were less positive on the Scale of Attitudes Toward Disabled Persons (SADP) and on its optimism-human rights subscale. Compared to female medical students, male medical students were more likely to hold negative attitudes toward disabled persons. It should be noted that in the present study, second-year medical students were the dominant group. In addition, we used our own questionnaire to gauge the attitudes toward disabled persons rather than using the ATDP.

Nurses and medical staff must have both an accurate understanding of and a positive attitude toward this population to ensure optimum nursing care is provided [14]. Therefore, it is important to examine both how medical students perceive disabled persons as well as the factors that influence those perceptions.

According to Zasepa [16], negative attitudes toward handicapped persons are expressed mainly when the disabled person exhibits the following behavior: manifests their disability, makes unreasonable demands for privileges, avoids people, complains about their disability, or behaves in a passive or aggressive manner.

It has been proven that more positive attitudes coexist with better perceptions of life as a spiritual value, as presented by religious people who believe in God. Furthermore, people with more positive attitudes toward disabled persons have higher levels of general intelligence, divergent thinking, and self-esteem (general esteem and esteem of oneself and other people). These people are also less dependent on the field of perception, tending to be more reflective and preferring moral, religious, social, and artistic-aesthetic values to prestigious values [17]. Witkowska [17] also found that students of special needs education have more positive attitudes toward disabled persons than other people. In essence, positive attitudes toward disabled persons coexisted with the stronger feeling that life makes sense.

According to Sękowski [18], attitudes and expectations of healthy people toward people with disabilities are mostly negative. Research into the dependence of different dimensions of self-image of high-school youth on their attitudes toward disabled persons shows that boys, who have stronger needs to take care of others, also have positive attitudes toward disabled person [17].

Similarly, high school boys have more positive attitudes toward life and other people. Girls, who show greater acceptance of the disabled persons, are more optimistic, have an energy in acting, and have a greater sense of responsibility. Girls also show a greater need to take care of others. Individuals surveyed by Stankiewicz [10] claim that the disabled people encountered rather unpleasant reactions in the streets, such as morbid curiosity (47.83%) and indifference (30.43%).

The CBOS report purports positive attitudes toward people with disabilities by almost half of respondents (45%) [19]. However, almost the same percentage of respondents (48%) have the opposite opinion. Alternatively, Jasińska-Kania and Straszyńska [20] proved that the youth "are open" to people with disabilities.

In our research, according to about half (41.9%) of the respondents, the attitude of people in our country toward handicapped persons is rather bad, and those people are also dissatisfied with their

lives. Respondents understood "disability" as lack of full mobility (27.7%) or difficulties in functioning in society (23.5%). Only 21.7% of the respondents declared that they met people with disabilities in their surroundings, and 20.8% had disabled friends.

The vast majority of respondents of the CBOS report claim that people with disabilities should work; only 16% of the respondents have the opposite opinion. The vast majority of Poles opt for employing the disabled persons together with healthy employees, whereas 17% of them support the segregation model of employment [20].

Similarly, in the research of Stankiewicz [10], almost all respondents are convinced that handicapped persons should work. The vast majority of students are convinced that people with disabilities should get married, have children, work, and drive a car. The respondents opine that disabled persons should work with healthy people, but should have their workplace adjusted to meet their needs.

According to the CBOS respondents (report, 2007), care of the disabled persons should be provided by family (94%), health care services (75%), and worker of social services (67%), rather than by friends or colleagues (23%), religious organizations (9%), and self-help groups (6%). The vast majority of the CBOS respondents (65%) declared readiness to provide a disabled person with selfless neighbor help [19]. However, only 6% claim that they participate in such activities, and 20% would not like to take part. Readiness to assist depends on the type of disability, with most respondents preferring to assist people with mental diseases.

Stankiewicz [10] found that the vast majority of his respondents would like to voluntarily help a disabled neighbor. In the current study, students are inspired to help disabled persons who are satisfied with their lives. Students want to assist disabled persons with everyday matters (e.g., shopping and housework). Specifically, most students would like to take care of disabled youth.

Stankiewicz [10] reports that people with disabilities should not live in special houses and should be educated at regular schools. Similarly, in the present study, most respondents are convinced that disabled persons should not live alone and should learn in integrated classrooms.

## **CONCLUSION**

The students prefer an integrative model of functioning of people with disabilities and believe that such people should champion themselves in their professional and social lives. Society, in general, is unprepared to help people with disabilities. Students' perceptions of people with

disabilities depends on how the students view disabled people's satisfaction with life.

### Conflicts of interests

None declared.

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