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Louis**

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**Comparison of attitudes towards  
stuttering among Polish and English  
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Tekst jest udostępniony do wykorzystania w ramach  
dozwolonego użytku.



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## **Comparison of attitudes towards stuttering among Polish and English university students**

### **Introduction**

#### **Facts about Stuttering**

According to Bloodstein,<sup>1</sup> it is nearly impossible to develop unambiguous definitions of stuttering and fluency. Stuttering is a disruption of fluency in speech, usually occurring at the initial sounds or words in a sentence, or at words/clause boundaries. Three main patterns of stuttering are typically reported, that is repetitions of sounds and syllables (usually three or more times), sound prolongations, and blocks followed by a burst of sounds. Often secondary behaviours such as tension in lips, jaws or cheeks or closing eyes or tapping with fingers (e.g. on a desk) are sometimes present. Males are more likely to stutter than females.<sup>2</sup> Stuttering usually begins between the ages of two and four. Approximately 5% of all children go through a period of stuttering that lasts six months or more. Three-quarters of those will recover by late childhood, which means that for about 1% of children the problem becomes a long-term one.<sup>3</sup>

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1 O. Bloodstein: "On pluttering, skivering and flogging: a commentary." *Journal of Speech and Hearing Disorders*, 1990, vol. 55, pp. 392-393.

2 B. Guitar: *Stuttering: An integrated approach to its nature and treatment*. Baltimore: Lippincott Williams & Wilkins, 2006.

3 D. Ward: *Stuttering and Cluttering. Frameworks for understanding and treatment*. Hove: Psychology Press, 2006.

Even though it has to be admitted that the exact causes of stuttering are not known, researchers agree that it likely results from an interaction of factors including child development, family dynamics, genetics, and neurophysiology.<sup>4</sup>

### Public Attitudes toward Stuttering

The following review will show that extensive research has demonstrated that non-stuttering members of the public hold negative or stigmatizing attitudes towards those who do stutter. Researchers have explored attitudes towards stuttering among different groups, such as parents,<sup>5</sup> teachers,<sup>6</sup> students,<sup>7</sup> and employers.<sup>8</sup>

### Need for a Standard Measure of Public Attitudes

Comparison of findings across investigations is difficult due to the use of largely different scales and questionnaires. As will become apparent, even though an extensive literature from different cultures and countries exists, until recently no standard and widely accepted public opinion instruments have been available. The Public Opinion Survey of Human Attributes-Stuttering (POSHA-S) was created to address this need. In the POSHA-S, stuttering is compared to other stigmatized attributes (i.e. obesity and mental health), a neutral attribute (i.e. left-handedness), and a positive attribute (i.e. intelligence). All the survey questions are worded in a direct and neutral manner and the use of idiomatic expressions is minimized in order to aid reading comprehension as well as to reduce cultural bias and provide for most accurate translations. The tool has been shown to be accurately translatable,<sup>9</sup> and to manifest satisfac-

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4 B. Guitar B: *Stuttering...*

5 T.A. Crowe, E.B. Cooper: "Parental attitudes toward and knowledge of stuttering." *Journal of Communication Disorders*, 1977, vol. 10, pp. 343-357.

6 T.A. Crowe, J.H. Walton: "Teacher attitudes toward stuttering." *Journal of Fluency Disorders*, 1981, vol. 6, pp. 163-174.

7 K.O. St. Louis, N.J. Lass: "A survey of communicative disorders students' attitudes toward stuttering." *Journal of Fluency Disorders*, 1981, vol. 6, pp. 49-80.

8 M.A. Hurst, E.B. Cooper: "Employer attitudes toward stuttering." *Journal of Fluency Disorders*, 1983, vol. 8, pp. 1-12.

9 K.O. St. Louis, P.M. Roberts: "Measuring attitudes toward stuttering: English-to-French translations in Canada and Cameroon." *Journal of Communication Disorders*, 2010, vol. 43, pp. 361-377.

tory test-retest reliability, construct validity, user friendliness, and efficiency.<sup>10</sup>

### A Sampling of Research on Public Attitudes

A study by Betz, Blood and Blood<sup>11</sup> investigated student attitudes towards stuttering, focusing on stuttering in pre-schoolers and kindergarten pupils. University students assigned significantly more negative ratings to a child as young as three years of age based on a statement in a scenario about the child in which “He/she stutters” was included.

Other studies have shown that negative attitudes also have been attributed to youth, adolescents or adults. For example, Craig, Tran and Craig<sup>12</sup> investigated the attitudes toward stuttering of those who have never directly met anyone with the disorder. They reported that a majority of their adult participants believed that people who stutter are shy, self-conscious, anxious, and lacking in confidence. They demonstrated little knowledge of the causes of stuttering but believed they would not feel embarrassed while talking to someone who stutters. To explain some of the negative attitudes, Craig, Tran and Craig hypothesized that it was likely that the participants based their opinions on inference or, alternatively, projected their own stereotypic beliefs or expected reactions onto the stutterers. On the other hand, even participants who had never met a person who stutters seemed to have an appreciation for the difficulties

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10 Cf. T.W. Flynn, K.O. St. Louis: *An investigation of adolescent opinions on stuttering*. Poster presented at Annual Convention of the American Speech-Language-Hearing Association, Boston, MA, 2007; K.O. St. Louis et al.: “Development of a prototype questionnaire to survey public attitudes toward stuttering: Principles and methodologies in the first prototype.” *The Internet Journal of Epidemiology*, 2008, vol. 5(2); K.O. St. Louis et al.: “Development of a prototype questionnaire to survey public attitudes toward stuttering: Reliability of the second prototype.” *Contemporary Issues in Communication Sciences and Disorders*, 2009, vol. 36, pp. 101-107; K.O. St. Louis et al.: “Development of a prototype questionnaire to survey public attitudes toward stuttering: Construct validity.” *Journal of Fluency Disorders*, 2009, vol. 34, pp. 11-28; K.O. St. Louis: “Research and development for a public attitude instrument for stuttering.” *Journal of Communication Disorders*, 2012, vol. 45, pp. 129-146.

11 I.R. Betz, G.W. Blood, I.M. Blood: “University students’ perceptions of pre-school and kindergarten children who stutter.” *Journal of Communication Disorders*, 2007, vol. 41, pp. 259-273.

12 A. Craig, Y. Tran, M. Craig: “Stereotypes towards stuttering for those who have never had direct contact with people who stutter: A randomized and stratified study.” *Perceptual and Motor Skills*, 2003, vol. 97, pp. 235-245.

of the disorder such as not being able to talk fluently and having to face social embarrassment.

A study by Hughes et al.<sup>13</sup> with a sample of university students, explored how fluent speakers perceived people who stutter from two perspectives, that is their beliefs on the effects of stuttering on the life of a person and how such a person's life would be affected if they stuttered. The results indicated that students perceive stuttering to have both general and specific negative effects for people who stutter. They believed that people who stutter are avoided, teased, and discriminated against. According to the researchers, however, fluent speakers do not believe people stutter because they are inherently shy, nervous, anxious, or frustrated (constructs that are explored in the POSHA-S).

Hughes<sup>14</sup> summarized studies of attitudes towards stuttering in males versus females, focusing on the sex of the respondent as well as the sex of the person who stutters. This research established that the participants believed traits such as shyness, nervousness or frustration were not inherent for people with stuttering (PWS) but rather acquired over time as a result of the negative social reactions they had experienced. The participants provided positive descriptions of people who stutter largely associated with their comparability to average individuals and believed them to be more patient and accepting due to their disorder. Hughes did not, however, find the number of statements to the survey questions to differ with respect to the sex of the person who stutters. She contrasted her results with those of (a) Patterson and Pring,<sup>15</sup> where no differences were found towards either sex of people who stutter regardless of the sex of the respondent, (b) Burley and Rinaldi,<sup>16</sup> where more negative attitudes were reported by male respondents compared to female respondents, and (c) Weisel and Spektor,<sup>17</sup> where more negative attitudes were observed towards males than towards females. Using the POSHA-S,

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13 S. Hughes et al.: "University students' explanations for their descriptions of people who stutter: An exploratory mixed model study." *Journal of Fluency Disorders*, 2010, vol. 35, pp. 280-298.

14 S. Hughes: *Exploring attitudes toward people who stutter: A mixed model approach*. Unpublished dissertation. Bowling Green, OH: Bowling Green State University, 2008.

15 J. Patterson, T. Pring: "Listener attitudes to stuttering speakers: No evidence for a gender difference." *Journal of Fluency Disorders*, 1991, vol. 16, pp. 201-205.

16 P.M. Burley, W. Rinaldi: "Effects of sex of listener and of stutterer on ratings of stuttering speakers." *Journal of Fluency Disorders*, 1986, vol. 17, pp. 329-333.

17 A. Weisel, G. Sektor: "A possible explanation of the 'stutterer' stereotype." *Journal of Fluency Disorders*, 1998, vol. 23, pp. 157-172.

St. Louis<sup>18</sup> concluded that males and females do not hold significantly different attitudes towards stuttering.

### International Comparisons of Stuttering Attitudes

International studies with the use of the POSHA-S have been carried out in many countries around the world, such as Turkey,<sup>19</sup> Kuwait,<sup>20</sup> and China (Hong Kong).<sup>21</sup> Employing a school-based, representative probability sampling scheme in Ozdemir, St. Louis, Topbas,<sup>22</sup> the POSHA-S was administered to elementary school children and their relatives and neighbours from two neighbourhoods. Attitudes towards stuttering were very similar among the generations and between the two repeated samples. The attitudes toward stuttering were generally less positive for the Turkish respondents when compared to attitudes from other studies conducted internationally. Abdalla and St. Louis<sup>23</sup> used a modified POSHA-S to investigate the attitudes towards stuttering among teachers in Kuwait. The results showed that even though many of the participants knew a person who stutters, they were often misinformed about the causes of stuttering and held stereotypical views about the disorder. Ip et al.<sup>24</sup> conducted a study investigating the attitudes towards stuttering among a convenience sample in Hong Kong and Mainland China. Mean ratings of respondents were reported to be similar in most comparisons. When compared to other mean values in the POSHA-S database (consisting of numerous countries and languages<sup>25</sup>), the Chinese respondents manifested lower (worse) attitudes than the median sample previously analysed. Overall, these three studies documented aspects of negative stereotypes and potential stigma

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18 K.O. St. Louis: "Male versus female attitudes toward stuttering." *Journal of Communication Disorders*, 2012, vol. 45, pp. 246-253.

19 R.S. Ozdemir, K.O. St. Louis, S. Topbas: "Stuttering attitudes among Turkish family generations and neighbors from representative samples." *Journal of Fluency Disorders*, 2011, vol. 36, pp. 318-333.

20 F.A. Abdalla, K.O. St. Louis: "Arab school teachers' knowledge, beliefs and reactions regarding stuttering." *Journal of Fluency Disorders*, 2012, vol. 37, pp. 54-69.

21 M.L. Ip et al.: "Stuttering attitudes in Hong Kong and adjacent Mainland China." *Journal of Speech-Language Pathology*, 2012, vol. 14, pp. 543-556.

22 R.S. Ozdemir, K.O. St. Louis, S. Topbas: "Stuttering attitudes..."

23 F.A. Abdalla, K.O. St. Louis: "Arab school teachers' knowledge..."

24 M.L. Ip et al.: "Stuttering attitudes in Hong Kong..."

25 K.O. St. Louis: "The Public Opinion Survey of Human Attributes-Stuttering (POSHA-S): Summary framework and empirical comparisons." *Journal of Fluency Disorders*, 2011, vol. 36, pp. 256-261.

with respect to people who stutter. By contrast, Pachigar, Stansfield, and Goldbart<sup>26</sup> explored the attitudes of primary school teachers in India towards stuttering. This study developed its own questionnaire specific to the sample investigated, based on others already existing in the field. The responses showed a generally positive attitude towards people who stutter. The teachers also claimed they treat pupils who stutter the same way they would treat other children, also in terms of public speaking.

The POSHA-S compares stuttering to other attributes and conditions. St. Louis<sup>27</sup> presented selected findings from pilot studies that used an experimental version of the POSHA-S from nine samples: American SLPs who were generalists, American SLPs who were fluency specialists, American students, and adults from Denmark, South Africa, Nepal, Brazil, Bulgaria and Turkey. The last three samples were from translated questionnaires. Participants from the six countries showed similarities to profiles of adults in the US as well as some interesting variations. For example, the impression of stuttering was the lowest item scored for the Turkish respondents while Brazilian and Bulgarian adults both scored mental illness as the lowest. The American SLPs agreed on genetics being a cause of stuttering. In the international sample, only the Danish group believed that psychological etiology was not the strongest causal component, nor did they believe stuttering is learned. By contrast, all the other lay groups rated psychological etiology the strongest. This research showed that people across cultures perceive stuttering almost as negatively as mental illness and obesity.

### Changing Public Attitudes toward Stuttering

Craig<sup>28</sup> wrote that if those who stutter could, by a more educated public, face positive or even neutral public reactions in their social environment, the impact of their stuttering would be less debilitating. This would improve the stutterers' quality of life. Of course, increased accurate public awareness would only be successful if the environment, when provided with such education, was more understanding and empathic and behaved less discriminately.

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26 V. Pachigar, J. Stansfield, J. Goldbart: "Beliefs and attitudes of primary school teachers in Mumbai, India towards children who stutter." *International Journal of Disability, Development and Education*, 2011, vol. 58, pp. 287-302.

27 K.O. St. Louis: "A global project to measure public attitudes about stuttering." *The ASHA Leader*, 2005.

28 A. Craig: "The association between quality of life and stuttering." *Journal of Fluency Disorders*, 2010, vol. 35, pp. 159-160.

Several studies have been reported that have attempted to provide information and improve stuttering attitudes. McGee, Kalinowski and Stuart<sup>29</sup> reported that participants displayed an even more negative attitude towards stuttering after watching a video presentation about the disorder, suggesting that the message shown appeared to reinforce pre-existing stereotypes towards the disorder. Snyder<sup>30</sup> showed that a fact-oriented clinical video of severe stuttering was more effective in changing attitudes than a professionally made video that focused on the emotions of stuttering. A preliminary study by Flynn and St. Louis<sup>31</sup> showed that after a presentation about stuttering by one of the researchers, who himself stuttered, participants showed an improvement in their attitudes on most of the items on the POSHA-S scale. A follow-up study by Flynn and St. Louis<sup>32</sup> also showed that students' attitudes towards stuttering were improved by a presentation about stuttering. It demonstrated that an oral presentation by an actual stutterer was more effective than a video. The authors discussed previous studies in this area utilizing classroom presentations, personal experiences with PWS, and videos or films, pointing out that each of these interventions has its advantages and disadvantages. They concluded that presentations by people who stutter are more likely to generate an intense and personal impact, but they are difficult to replicate. Videos, on the other hand, though easier to replicate, lack the potential impact of an interaction with a stutterer.

## Purposes

The present study addresses the following experimental questions:

- To what extent do differences in attitudes towards stuttering exist between Polish and English university students?
- To what extent does attending a course on stuttering affect Polish students' attitudes toward stuttering compared to a short text on stuttering or ADHD in both Polish and English students?

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29 L. McGee, J. Kalinowski, A. Stuart: "Effect of a videotape documentary on high school students' perceptions of a high school male who stutterers." *Journal of Speech-Language Pathology and Audiology*, 1996, vol. 20, pp. 240-246.

30 G.J. Snyder: "Exploratory research in the measurement and modification of attitudes toward stuttering." *Journal of Fluency Disorders*, 2001, vol. 26, pp. 149-160.

31 T.W. Flynn, K.O. St. Louis: *An investigation of adolescent opinions on stuttering*. Poster presented at Annual Convention of the American Speech-Language-Hearing Association, Boston, MA, 2007.

32 T.W. Flynn, K.O. St. Louis: "Changing adolescent attitudes toward stuttering." *Journal of Fluency Disorders*, 2011, vol. 36, pp. 110-121.



- To what extent are Polish and English students' attitudes toward stuttering affected by their gender?
- To what extent are Polish and English students' attitudes toward stuttering affected by their self-rated knowledge of stuttering?

## Method

### Questionnaire and Stimuli

The questionnaire used to measure stuttering attitudes was the POSHA-S.<sup>33</sup> It asks demographic questions about the individual's age, years of education, gender, race, religion, perceived income, and languages spoken. It also asks respondents to rate the importance of certain aspects of health, abilities, and life priorities, such as freedom, safety, and free will. A general section asks for the respondent's opinions on stuttering in comparison with other attributes ranging from positive (intelligence) to neutral (left-handedness) to stigmatized (obesity, mental illness). The final detailed section of POSHA-S, focuses on stuttering, asks questions about the respondent's knowledge of the disorder, attitudes towards it, and thoughts, emotions, and behaviours they would have during an interaction with a person who stutters (see Appendices 1 and 2). The questionnaire was five pages in length. It consisted of closed questions wherein participants were asked to choose the answer they thought most appropriately described their beliefs. In the general section, responses were rated on a scale of 1 to 5 and in the stuttering section, "yes," "no," or "not sure." The Polish translation was used by permission of the publisher.

The study also utilized printed texts on stuttering and attention-deficit/hyperactivity disorder (ADHD). The stuttering text was taken online from the Stuttering Foundation of America website and the ADHD text from the ADDitudeMag website. The two texts were around 250 words in length and were similar in format. Both debunked five myths involving negative perceptions of the disorder and ended up showing each disorder in a positive light.

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33 K.O. St. Louis: "The Public Opinion Survey of Human Attributes-Stuttering (POSHA-S)..."

## Participants

The study samples included 272 student volunteers from the University of Silesia in Poland and the University of Warwick in England. Participants were approached in the library, undergraduate common room, outside lecture halls and seminar rooms. In England the data was collected by Marta Węsierska. In Poland, however, the researcher was aided by four individuals from the University of Silesia. The assistants were trained to deliver the questionnaires in exactly the same manner as was used by the author.

## Experimental Procedures

After signing consent forms, participants were asked to fill out a questionnaire about attitudes toward stuttering. If they agreed, they were then asked to read the instructions on the front page of the questionnaire. Next, some participants (see below) were asked to read a short text about either stuttering or ADHD. Next, they were asked to fill out the questionnaire, which required about 10 minutes. All students were debriefed after completing the questionnaire.

The participants consisted of seven sample groups, three in the UK and four in Poland. The Polish groups were as follows: a control group (63 students), a group with previous knowledge about stuttering (50 students), an ADHD text group (25 students), and a stuttering text group (34 students). The English sample consisted of three groups: control group (50 students), ADHD text group (20 students), and stuttering text group (30 students). The Polish group with previous knowledge were students who took a module in stuttering and speech disorders as part of their degree, but these students were not in training to become speech and language therapists. The other groups consisted mostly of psychology students and students of other humanistic subjects such as pedagogy and language studies. These were an opportunity sample of participants who were most accessible to the researchers.

## Data Analysis

Questionnaire data were entered into separate Microsoft Excel spreadsheets for each of the groups. The question mark answers were given the value '0' which indicated a neutral response and yes/no answers were converted into 1 and -1 depending on whether the response was positive (with respect to attitude or knowledge) or negative. These responses were then added up for each participant.

Participants scored in a total of six areas. Attitude towards stuttering consisted of scores for: "People who stutter should..." with questions about jobs, life, choices and personal traits; worry if various people stuttered, reactions and feelings while talking to a stutterer, and sources of help for stuttering. Accuracy of stuttering knowledge was based on their responses to items relating to the cause of stuttering.

A rating of genetic inheritance was regarded as the only correct response in the list of potential causes. Thus they received the highest accuracy scores if they chose "yes" for genetic inheritance and "no" for the other choices. Knowing a person with a stuttering disorder was determined as part of a question asking whether the participant knew people who stuttered (along with the four other attributes). Rating of a person's own speaking ability was taken from the demographic section wherein respondents rated their speaking and learning ability along with their physical and mental health. General tolerance was determined by ratings in the general section on overall impression. The question about left-handedness was left out as it was the only neutral attribute. Perceived amount of knowledge of stuttering came from the question "The amount I know about people who have a stuttering disorder" answered on a scale of 1 to 5.

One-way ANOVAs were run for each of the six variables (attitudes, accuracy, familiarity or knowing someone who stutters, self-perceived speaking ability, general tolerance, and knowledge) with the seven sample groups. The Fisher's LSD was carried out for all pairwise contrast on significant ANOVAs.

## Results

One-way ANOVAs revealed a significant difference between the groups on the attitude score ( $F(6,256) = 3.41, p < .05$ ), accuracy of knowledge score ( $F(6,256) = 5.10, p < .05$ ), general tolerance ( $F(6,256) = 5.35, p < .05$ ) and perceived knowledge ( $F(6,256) = 15.38, p < .05$ ). There was no significant difference between the seven conditions on respondents' own speech rating ( $F(6,256) = 1.69, p > .05$ ). The only significant difference found between male and female respondents was on general tolerance (females scored higher) ( $F(1,269) = 9.60, p < .05$ ).

Interestingly, none of the respondents in any of the groups reported having a stuttering disorder. Most people did know someone who stuttered. When knowing a person who stutters, there was a significant difference in attitude score (higher if yes) ( $F(1,270) = 11.42, p < .05$ ), accuracy of knowledge (lower if yes) ( $F(1,270) = 4.75, p < .05$ ), general tolerance (higher if yes) ( $F(1,270) = 6.04, p < .05$ ) and perceived knowledge (higher

if yes) ( $F(1,270) = 25.24, p < .05$ ). A Pearson product-moment correlation coefficient was calculated between perceived knowledge and accuracy of knowledge but was non-significant ( $R(272) = -.08, p > .05$ ).

Table 1

Mean ratings for the six variables created from the items for the purpose of this study, from the seven samples of university students and F-values from one-way ANOVAs conducted for each variable

Variables analysed in the present study	Poland				UK			F-value for one-way ANOVA
	Speech Therapy module	Stuttering information	ADHD information	Control	Stuttering information	ADHD information	Control	
Attitude towards stuttering	10.52	9.74	8.24	7.59	11.57	11.75	8.80	3.41
Accuracy of knowledge	2.20	2.74	1.56	1.59	3.57	2.70	2.82	5.10
Knowing a person who stutters (%)	64.00	61.76	68.00	55.56	46.67	55.00	56.00	.077
Rating of own speaking ability	4.36	4.00	4.44	4.03	4.03	4.20	4.34	1.69
General tolerance	1.60	0.97	1.36	0.70	-0.40	0.25	0.12	5.35
Perceived amount of knowledge of stuttering	3.56	2.56	2.68	2.52	1.97	1.85	1.92	15.38

Table 2

Mean scores on the five questions for participants who did or did not know someone who stutters

Type of participants	Attitude score	Accuracy of knowledge	Perceived speaking ability	General tolerance	Perceived knowledge
Participants who know someone who stutters	8.1	2.6	4.01	0.4	2.1
Participants who did not know anyone who stutters	10.4	2.1	4.30	0.9	2.8

For the attitude measure, the results were as follows: the group of Polish students with previous knowledge of stuttering scored significantly higher than the Polish control group. Furthermore, the English control group scored higher than the Polish control group. These students also scored lower than the Polish group with previous knowledge, however this result was not significant statistically. English students who read both the ADHD and the stuttering text before completing the questionnaire scored higher than both the Polish and English control groups. There was no significant difference between Polish and English students who read the text about

stuttering. But this difference could be observed in the ADHD text condition, where the English students performed better. Overall in this measure, the Polish control groups had the lowest scores and the English stuttering group scored the highest.

Relative to accuracy of knowledge, the English control group students scored significantly higher than Polish controls. There was also a significant difference between the Polish control group and the group whose participants were given a text about stuttering; the latter group scored higher. This was not the case for the Polish ADHD group compared to the Polish control group. There was, however, a significant difference between Polish ADHD and Polish stuttering groups, with the latter scoring higher. The lowest scores were obtained by the Polish control and ADHD group. The Polish stuttering group scored the highest.

On the general tolerance measure, the English stuttering condition obtained the lowest scores and the Polish group with previous knowledge scored the highest. Furthermore, the Polish group with previous knowledge scored higher than the Polish controls, and so did the English stuttering group. The English control group scored lower than the Polish group with previous knowledge. There was a significant difference between the ADHD and stuttering groups in both countries with Polish students scoring higher in both.

Perceived knowledge was also assessed for differences between groups. Firstly, the Polish group with previous knowledge of stuttering scored higher than the Polish control as well as the English control. The Polish control group also scored significantly higher than the English control. The Polish group with previous knowledge scored higher than both the Polish ADHD and stuttering groups. The Polish ADHD group scored higher than the English ADHD group. Also, the Polish stuttering group scored higher than the English one.

## Discussion

Relative to the first purpose, this study revealed several significant differences between Polish and English students on all measures. Polish students believed that they had more tolerance and have more knowledge about stuttering. English students, however, showed a more positive attitude towards stuttering, and their knowledge of this disorder was more accurate.

Having previous knowledge of stuttering, or at least attending a course on the subject, was also an asset. These students who attended such a course obtained the highest scores on the general tolerance measure. These students also scored higher than the Polish controls on the other

measures. There were some interesting findings in the stuttering and ADHD groups. Apart from the accuracy of knowledge, the stuttering group did not perform significantly better than the control group (this was for the Polish sample). There were significant differences between the stuttering and ADHD groups as well as between Polish and English ADHD and stuttering groups.

Therefore, the following can be concluded: taking a course in stuttering improves attitudes towards stuttering as well as a perceived knowledge of the disorder and tolerance in general. What is more, English students display more positive attitudes towards stuttering and have a more accurate knowledge about it than Polish students, but they score lower on perceived knowledge and display a worse general tolerance. Reading a text about stuttering improves overall attitudes towards the disorder as well as accuracy of knowledge (in these two variables the highest scores were obtained by the students who read such a text). Polish students attribute to themselves the highest levels of knowledge about stuttering. Males and females do not differ in their attitudes towards stuttering. Knowing someone who stutters is connected with higher scores on attitude, general tolerance and perceived knowledge.

The results obtained in this study were consistent with research done by St. Louis<sup>34</sup> who found no significant differences between males versus females from 50 different samples in their attitudes towards stuttering. Although not providing a pre versus post POSHA-S comparison, our findings support the possibility that attitudes towards stuttering can be improved.<sup>35</sup>

There are a few limitations in the study described above. To start with, there is an issue with the sample size in this research. Although it is large overall, the amount of participants in each separate subgroup is quite small (for example, there were about 20 participants in the ADHD knowledge group). Such small sample size is difficult to draw valid conclusions from. If such a study is replicated in the future it will be advisable to introduce a larger sample size.

Another issue was the fact that it was female-dominated – there were very few male respondents in each subgroup. This is likely to be due to the courses attended by most of the respondents who agreed to take part (Psychology and Pedagogy are generally female-dominated courses of study). Because of this it could be argued that the conclusions about gender differences in this research are not valid. But, on the other hand, St. Louis

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34 K.O. St. Louis: "Male versus female attitudes toward stuttering." *Journal of Communication Disorders*, 2012, vol. 45, pp. 246–253.

35 T.W. Flynn, K.O. St. Louis: "Changing adolescent attitudes toward stuttering." *Journal of Fluency Disorders*, 2011, vol. 36, pp. 110–121.

arrived at similar conclusions, so this may not necessarily be a significant issue.<sup>36</sup> This factor about the gender of the majority of the respondents does, however, influence the generalizability of the results.

The three groups in the English sample did not actually consist solely of British students. Some of the participants who took part were international students. These students came from all continents and from countries with different cultures and belief systems. It cannot therefore be said that the research compared English and Polish students without it being necessary to delete a large portion of the data, which in turn would be a great disadvantage to the present study. An improvement necessary to consider in future research would be to make sure that only native students are considered in such cross-cultural comparisons.

POSHA-S asks closed questions (the participants either give “yes” or “no” answers or rate on a scale from -1 to +2). The issue with this sort of questions is that they leave no room for elaborating on the response – there is no way to understand why the respondents chose certain answers or how they really felt.

## Future directions

Prevention is the most effective way of dealing with stuttering. Research as the one described above shows that there is still a lot of work to be done in educating the public about stuttering, its causes, warning signs, risk factors and treatments. A lot has already been done, especially in the United Kingdom and the United States where support groups and organizations providing help and services to people who stutter are much easier to reach. By contrast, in Poland the professionals in the child’s everyday environment are unaware of what stuttering is, and therefore, are less likely to direct the child to a speech therapist. This in turn means that his/her problem worsens and is much more difficult to overcome when the child finally attends therapy. Publications which have been widely available in the States via the Stuttering Foundation of America include those entitled “The child who stutters: to the paediatrician” and “Stuttering: straight talk for teachers” have only recently been translated into Polish. Educational posters were also created and placed in kindergartens, schools, clinics and private practices with helpful guidelines for parents and teachers of children who stutter. These efforts should be continued.

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36 K.O. St. Louis: “The Public Opinion Survey of Human Attributes-Stuttering (POSHA-S)...”

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## Appendix 1

Mean values and ratings of the demographic characteristics of seven samples of university students and the median sample mean value from the POSHA-S database (an item used as a variable in this study is shown in the footnote to the table)

Demographic characteristics	Poland				UK			POSHA-S Database median*
	Speech Therapy module	Stuttering information	ADHD information	Control	Stuttering information	ADHD information	Control	
Age	23.80	20.14	21.98	20.02	21.32	21.17	20.94	35.74
Gender (male : female)	0.09	0.21	0.79	0.19	0.45	0.38	0.22	0.53
Education (years)	16.98	12.91	13.40	13.59	13.73	12.50	13.00	14.66
Income (family and friends) (scale of 1-5)	3.05	3.33	3.05	3.25	3.19	2.95	3.15	3.15
Income (country) (scale of 1-5)	2.97	3.03	2.95	3.06	3.33	3.33	3.39	3.00
Working (%)	14	3	20	5	0	0	6	62
Self-identification (%)								
Multilingual	86	100	92	100	40	20	38	39
Intelligent	34	44	44	59	50	40	48	40
Left-handed	8	9	4	10	10	25	6	7
Obese	4	3	0	5	3	5	2	7
Mentally ill	0	0	12	0	7	0	12	1
Stuttering	0	0	0	0	0	0	2	0
Health and abilities								
Physical health	46	48	52	47	32	35	40	45
Mental health	45	55	56	43	43	50	41	57
Ability to learn	54	36	58	41	52	60	63	60
Ability to speak**	68	56	72	62	52	58	68	62
Life priorities								
Be safe/secure	90	79	78	83	72	70	76	80
Be free	72	71	83	78	63	63	74	64
Spend time alone	32	28	24	26	28	28	44	32
Attend social events	19	35	50	35	23	8	35	15
Imagine new things	36	50	64	47	12	24	28	33
Help less fortunate	47	38	52	29	28	18	32	52
Have exciting experiences	-19	13	-8	13	-20	-25	-10	-18
Practice my religion	33	-17	4	-11	-41	-60	-50	25
Earn money	57	58	66	68	42	15	44	58
Do job/duty	71	56	74	51	50	50	44	74
Get things done	77	74	90	66	60	58	66	74
Solve big problems	81	77	88	69	47	63	53	69

\* Median of 195 separate sample means from the POSHA-S database containing 8,874 respondents (circa September, 2013).

\*\* Unconverted ratings used in the variable, "Rating of own speaking ability" used in this study.

Appendix 2

Mean ratings for POSHA-S items, components, subscores, and Overall Stuttering Scores (-100 to +100) for the mean ratings of seven samples of university students and the median sample mean value from the POSHA-S database (items used as variables in this study are shown by footnotes)

Variables analysed in the present study		Poland				UK			POSHA-S database median <sup>a</sup>
		Speech Therapy module	Stuttering information	ADHD information	Control	Stuttering information	ADHD information	Control	
1	2	3	4	5	6	7	8	9	10
Beliefs about persons who stutter	Traits/personality have themselves to blame* <sup>b</sup>	35	41	23	23	71	45	30	18
	nervous or excitable* <sup>b</sup>	100	97	96	84	100	95	96	84
	shy or fearful* <sup>b</sup>	48	71	20	32	57	30	14	6
		-44	-44	-48	-47	57	10	-20	-8
	Stuttering should be helped by... speech and language therapist <sup>b</sup>	37	19	9	17	42	48	35	19
	other people who stutter <sup>b</sup>	100	100	88	94	100	100	100	89
	medical doctor* <sup>b</sup>	73	9	38	32	33	50	33	10
		-61	-53	-100	-73	-7	-5	-27	-26
	Stuttering is caused by... genetic inheritance <sup>c</sup>	39	46	26	27	58	46	46	34
	learning or habits* <sup>c</sup>	10	24	20	17	30	20	44	15
a very frightening event* <sup>c</sup>	25	44	32	14	10	0	-10	15	
an act of God* <sup>c</sup>	-54	-38	-64	-51	47	20	8	-4	
a virus or disease* <sup>c</sup>	85	85	67	73	90	90	100	65	
ghosts, demons, spirits* <sup>c</sup>	67	62	24	21	90	60	35	49	
	98	97	80	86	83	85	100	87	
Potential can make friends <sup>b</sup>	71	58	68	60	67	66	67	62	
can lead normal lives <sup>b</sup>	100	94	100	97	93	100	100	93	
can do any job they want <sup>b</sup>	100	94	100	100	87	80	100	85	
should have jobs requiring good judgment <sup>b</sup>	50	15	36	19	40	55	35	49	
	34	29	36	25	47	30	33	37	
	Total	45	41	31	32	60	51	45	34
Self reactions to people who stutter	Accommodating/helping try to act like the person was talking normally <sup>b</sup>	74	45	31	34	53	43	56	47
	person like me fill in the person's words* <sup>b</sup>	90	100	92	76	77	80	96	78
	tell the person to "slow down" or "relax"* <sup>b</sup>	69	-41	-42	-16	-40	-30	-35	-22
	make joke about stuttering* <sup>b</sup>	92	53	20	37	40	25	51	47
	should try to hide their stuttering* <sup>b</sup>	6	-3	-40	-27	70	35	55	21
		94	88	88	76	100	80	90	88
	96	74	68	59	73	70	78	70	

1	2	3	4	5	6	7	8	9	10
Self reactions to people who stutter	Social distance/sympathy	17	15	1	-3	15	29	18	4
	feel comfortable or relaxed <sup>b</sup>	4	0	-40	-27	70	35	55	21
	feel pity <sup>*b</sup>	18	35	-8	17	-10	40	0	20
	feel impatient (not want to wait while the person stutters) <sup>*b</sup>	71	59	24	27	50	60	39	59
	concern about my doctor <sup>*b</sup>	61	53	56	11	50	85	65	39
	concern about my neighbour <sup>*b</sup>	90	97	100	94	100	90	90	69
	concern about my brother or sister <sup>*b</sup>	0	-9	12	-19	47	55	39	-26
	concern about me <sup>*b</sup>	-59	-47	-72	-69	-43	-10	-26	-50
	impression of person who stutters <sup>e</sup>	21	9	6	7	-10	-5	-5	2
	want to have stuttering	-58	-66	-70	-78	-68	-58	-69	-70
	Knowledge /experience	-28	-30	-31	-41	-56	-56	-56	-36
	amount known about stuttering <sup>f</sup>	28	-14	-16	-13	-52	-53	-50	-23
	stutterers known <sup>d</sup>	-91	-89	-89	-92	-84	-80	-90	-86
	personal experience (me, my family, friends)	-20	12	12	-17	-33	-35	-29	-3
	Knowledge source	34	21	-12	20	-11	-11	-18	-16
	television, radio, films	10	47	28	52	43	55	45	-5
	magazines, newspapers, books	45	6	-12	21	-23	0	-29	-10
	internet	42	71	36	43	3	-10	-16	-33
school	77	12	-42	10	-20	-20	-24	-18	
doctors, nurses, other specialists	-4	-32	-68	-24	-57	-80	-65	-32	
Total	24	12	-3	3	0	1	0	0	
Obesity/mental illness subscore	Overall impression	-4	-11	-11	-14	-31	-21	-26	-15
	obese <sup>e</sup>	-13	-6	-8	-8	-13	0	-11	-23
	mentally ill <sup>e</sup>	-21	-15	-14	-25	-10	-5	-5	-9
	Want/have	-79	-87	-84	-92	-88	-90	-89	-84
	obese	-78	-87	-88	-92	-92	-95	-97	-83
	mentally ill	-80	-88	-80	-91	-85	-85	-82	-85
	Amount known about	1	-8	0	-4	11	-6	21	0
	obese	17	6	7	11	-3	-13	4	10
	mentally ill	-15	-22	-6	-18	25	0	37	11
	Total	-27	-35	-32	-37	-36	-39	-32	-34
Overall Stuttering Score	35	27	14	17	30	26	22	16	

\*Indicates that ratings are reversed so more positive, accurate, or desirable ratings are higher

<sup>a</sup> Median of 195 separate sample means from the POSHA-S database containing 8,874 respondents (circa September, 2013).

<sup>b</sup> Unconverted ratings used in the variable "Attitudes" used in this study.

<sup>c</sup> Unconverted ratings used in the variable "Accuracy of knowledge" used in this study.

<sup>d</sup> Unconverted and unweighted ratings used in the variable "Knowing a person who stutters" used in this study.

<sup>e</sup> Unconverted ratings used in the variable "General tolerance" used in this study.

<sup>f</sup> Unconverted ratings used in the variable "Perceived amount of knowledge of stuttering" used in this study.

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### Porównanie postaw polskich i angielskich studentów wobec jąkania się

**Streszczenie:** Badania pokazują, że u ogółu społeczeństwa – czy to w rzeczywistości, czy tylko hipotetycznie – utrzymuje się piętnująca postawa wobec osób, które się jękają. We wcześniejszych badaniach określano, jakie są postawy wobec jąkania wśród różnych grup respondentów: studentów, rodziców czy logopedów. Niniejszy artykuł opisuje badania, które miały na celu ustalenie różnic pomiędzy postawami wobec jąkania wśród studentów w Polsce i Wielkiej Brytanii.

Wszyscy uczestnicy zostali poproszeni o jednorazowe wypełnienie kwestionariusza POSHA-S (Public Opinion Survey of Human Attributes-Stuttering). Kwestionariusz badał sześć obszarów związanych z postawami oraz wiedzą dotyczącą zaburzenia, jakim jest jękanie: postawy wobec jąkania, poziom wiedzy o jękaniu, znajomość z osobą (bądź osobami) jękającą się, własna ocena umiejętności wypowiadania się, opinia uczestnika na temat ogólnego społecznego poziomu tolerancji wobec jąkania oraz poziomu wiedzy o tym zaburzeniu.

Wyniki otrzymane w polskiej grupie badawczej wskazują, że udział w zajęciach związanych tematycznie z jękaniem prowadzi do poprawy nastawienia wobec jąkania, jak i zwiększenia wiedzy o tym zaburzeniu oraz podniesienia ogólnego poziomu tolerancji. Wyniki porównawcze obu grup – polskiej i brytyjskiej – wskazały, że angielscy studenci manifestują bardziej pozytywne postawy wobec jąkania oraz posiadają większą wiedzę na temat tego zaburzenia. Z kolei polscy studenci wyżej oceniali swoją znajomość zaburzenia oraz otrzymywali wyższe wyniki w zakresie ogólnej tolerancji. W obu krajach przeczytanie tekstu na temat jąkania przed wypełnieniem kwestionariusza pozytywnie wpłynęło na postawy wobec zaburzenia. Znajomość z osobą jękającą się okazała się współzależna z wyższymi wynikami w zakresie postaw, ogólnej tolerancji oraz oceny własnej wiedzy o jękaniu. Z powyższych wyników badacze wywnioskowali, że postawy wobec jąkania mogą być zmienione przez kontakt z osobą jękającą się – zarówno osobisty, jak i za pośrednictwem nagrania wideo. Badanie wykazało potrzebę dalszej, bardziej dogłębnej analizy postaw wobec różnych ludzkich cech, takich jak jękanie. Upowszechnianie wyników badań w zakresie postaw wobec jąkania jest ważnym elementem w procesie podnoszenia świadomości na temat tego zaburzenia w społeczeństwie.

**Słowa kluczowe:** postawy wobec jąkania się, kwestionariusz, POSHA-S, studenci, Polska, Anglia

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### Der Vergleich von der Einstellung der polnischen und englischen Studenten zum Stottern

**Zusammenfassung:** Wie die Forschungen zeigen, werden stotternde Personen immer noch in Wirklichkeit oder nur hypothetisch vom Großteil der Gesellschaft anprangert. In früheren Forschungen wurde untersucht, welche Einstellung zum Stottern verschiedene Gruppen der Befragten: Studenten, Eltern oder Logopäden

hatten. Der vorliegende Artikel schildert die unter den Studenten in Polen und Großbritannien durchgeführten Forschungen, die bezweckten, die Unterschiede in der Einstellung zum Stottern zwischen polnischen und englischen Studenten festzustellen. Alle Befragten wurden gebeten, einmal den POSHA-S (Public Opinion Survey of Human Attributes-Stuttering) Fragebogen auszufüllen. Mit dem Fragebogen wurden sechs mit dem Stottern und der Einstellung dazu verbundene Gebiete untersucht: Einstellung zum Stottern, Kenntnisse über Stottern, Bekanntschaft mit einer (oder mehreren) stotternden Personen, eigene Beurteilung der Aussagefähigkeit, die Meinungen der Befragten über den allgemeinen Stand der gesellschaftlichen Toleranz dem Stottern gegenüber und heutiges Wissensstand über diese Störung.

Die in der polnischen Forschungsgruppe erreichten Ergebnisse weisen darauf hin, dass die Teilnahme an den vom Stottern handelnden Lehrveranstaltungen eine bessere Einstellung zum Stottern, bessere Kenntnisse über diese Störung und letztendlich mehr Toleranz zu Folge hatte. Die Ergebnisse des Vergleichs von den beiden Gruppen der polnischen und der englischen – zeigten, dass englische Studenten sich durch positivere Einstellung zum Stottern und durch bessere Kenntnisse über das Problem auszeichneten. Polnische Studenten dagegen beurteilten ihre Kenntnisse über Stottern höher und waren mehr tolerant. Einen guten Einfluss auf positivere Einstellung zu der Störung hatte die Lektüre des vom Stottern handelnden Textes noch vor dem Ausfüllen des Fragebogens. Die Bekanntschaft mit einem Stotternden wirkte sich positiv auf die Einstellung, allgemeine Toleranz und die Beurteilung von eigenen Kenntnissen über Stottern aus. Die Forschungsergebnisse erlaubten den Wissenschaftlern zum Schluss kommen, dass ein persönlicher oder Video-Kontakt mit stotternder Person im Stande sind, die Einstellung zum Stottern zu ändern. Sie betonen auch die Notwendigkeit einer tieferen Analyse von der Einstellung zu verschiedenen menschlichen Unvollkommenheiten, wie z.B.: Stottern. Die Verbreitung von Informationen über die Einstellung zum Stottern wird bestimmt zur Erweiterung der Kenntnisse über diese Störung in der Gesellschaft beitragen.

**Schlüsselwörter:** Einstellung zum Stottern, Fragebogen, POSHA-S, Studenten, Polen, England