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Access to Information About Stuttering and Societal Knowledge of Stuttering

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Abstract

The purpose of this study was to examine societal knowledge of stuttering, access to information sources, and the influence of information sources on knowledge of stuttering. 185 participants from Northwest Ohio were surveyed. Results of the study indicated that the general public varies in their knowledge of stuttering and that majority of participants had not accessed information about stuttering, and the few who had, did so a long time ago. Finally, access to information sources had little influence on knowledge of stuttering. Implications for future research are discussed.

For decades, it has been understood by clinicians and researchers alike that stuttering is a complex disorder. This has led to disagreements about how to best describe, explain the cause, and treat the disorder, even among the professional community (Guitar, 2006; Perkins, 1990; Van Riper, 1982). Though we know that professionals in the field continue to research and discuss stuttering in a variety of ways, less is known about the general public's knowledge and understanding of stuttering.

It is important to be familiar with societal knowledge of stuttering for several reasons. First, it is believed that knowledge of a specific disability, such as stuttering, can reduce the negative beliefs that individuals have regarding that disability (Smart, 2001; Wright, 1988). Thus, an increased knowledge of stuttering should coincide with improved beliefs about people who stutter (PWS). One would expect that increased knowledge of stuttering could lead to improved treatment of PWS by the general public, which has been found in research with other disabilities (Smart). Access to information about stuttering, which might increase knowledge of the problem, may facilitate the ability to gain access to therapies for stuttering. This would be especially important for parents of young children who stutter, since early identification and intervention can lead to effective treatment (Guitar, 2006; Shapiro, 1999). Lastly, gaining an understanding of societal knowledge of stuttering would have a positive impact on epidemiological studies of stuttering (Craig & Tan, 2002).

Relatively few studies have explored societal knowledge of stuttering. Most studies have attempted to explore the relationship of societal knowledge to perceptions and attitudes towards stuttering (Crowe & Cooper, 1977; Crowe & Walton, 1981; Hulit & Wirtz, 1994; Hurst & Cooper, 1983). In these studies, it is clear that societal groups report a poor understanding of stuttering. The results of these studies also tend to suggest that an increased knowledge of stuttering tends to relate to improvement in attitudes towards stuttering.

Other studies have attempted to explore knowledge of stuttering more directly. In a large survey study utilizing a close-ended telephone questionnaire, Ham (1990) studied the knowledge and perceptions of 563 randomly identified people. The participants were asked to respond to various questions about stuttering and to offer treatment advice to individuals who stuttered. The results indicated that the definition of stuttering varies widely in society, but that many respondents believed that stuttering was a result of both physiological and psychological differences. Only 15% of participants suggested that PWS should pursue speech therapy. Van Borsel, Verniers, and Bouvry (1999) conducted a survey study in Belgium, which consisted mostly of close-ended questions about the general public's knowledge of stuttering. Specific categories of questions were related to experiences with PWS, prevalence of stuttering, age of onset stuttering, gender distribution, and other basic facts about stuttering. The findings suggested that the sample of participants lacked an understanding of basic facts about stuttering, but that 98% of the sample believed stuttering could be treated.

In considering societal knowledge of stuttering, one would need to consider the sources of information about stuttering that individuals can access. Relatively few studies have explored the types of information sources, about stuttering. Johnson (1987) described the potential negative impact of Porky Pig cartoons on societal understanding of stuttering. Bushey and Martin (1988) reviewed 12 children's books that contained characters who stutter. They found that these books generally portrayed severe types of stuttering and that most of the stories portrayed the character(s) who stuttered in a weak or negative fashion. Additionally, the books did not portray an accurate cause of stuttering. Benecken (1994) explored the depiction of PWS in films, novels, jokes, and newspaper articles over the past two centuries by reviewing a random sample of famous movies, novels, children's books, proverbs, and newspaper articles. The findings of this study suggested that media tends to report inaccurate information and that PWS are often described negatively or use as comic relief.

Over the past 10 to 15 years, the internet has become an increasingly important source of information on all topics, including stuttering. A study by Tellis, Gabel, Smith, & Tellis (2002) reviewed Internet sites that provided information about stuttering. The authors found that there were an abundant number of sites containing information about stuttering, and that many were quite detailed and accurate in their review of basic information about stuttering and stuttering treatment. However, the authors cautioned that many sites provide potentially harmful and erroneous information about stuttering. The present research regarding societal knowledge of stuttering suggests a relatively low level of understanding about stuttering (Ham, 1990; Van Borsel, et al., 1999). In addition, there appears to be many resources of information about stuttering that can provide information about stuttering, but unfortunately these sources might be suspect (Bushey & Martin, 1988; Johnson, 1987; Tellis, et al., 2002). The present study sought to contribute to the present research exploring societal knowledge of stuttering. Three research questions guided this study: What is the general public's knowledge about stuttering? What sources of information about stuttering are accessed by the general public? What are societal perceptions of various information sources about stuttering? How does the source of information regarding stuttering affect the general public's knowledge about stuttering?

Margins

Method

The Questionnaire—This study is a part of an ongoing research program exploring societal knowledge and attitudes of stuttering. Since the purpose of this paper is to report on societal knowledge of stuttering and access to information sources, only data pertaining to

44 items of a larger questionnaire will be reported (see Appendix A). The items consisted of one open-ended question and several forced-choice questions. The items exploring knowledge of stuttering and PWS were selected for use from pre-existing surveys (Crowe & Cooper, 1977; Crowe & Walton, 1981; Gabel, et al., 2004; Hultitz & Wirtz, 1994; Van Van Borsel, et al., 1999). Other questions, particularly those related to media influences, were developed specifically for this study. Ten members of the general population and three experienced researchers reviewed a preliminary version of the questionnaire. Based on the feedback suggested by these individuals, changes were made to improve the survey's clarity, ease of completion, importance of content, and readability. These changes included structural modifications (such as order of the items, organization of the items, etc.), font changes to improve the readability, and shortening the true/false section. The resulting survey included questions intended to solicit the respondents' demographic information (including gender, occupation, age range, race/ethnicity, education, and experiences with PWS), their knowledge of and attitudes towards PWS, and their informational sources about stuttering.

Seven questions targeted information about the participants' backgrounds, including whether they knew PWS and if so, in what number (question #6). In addition, the participants were asked if they stuttered. All of the participants who answered "yes" were excluded from the study. The remaining demographic items asked individuals to report their educational background, ethnic background, age, occupation, and gender.

The survey contained 10 questions related to different potential information sources about stuttering and PWS (#s 10–19). The sources examined were books, Internet, lectures/presentations outside of school, magazines, newspapers, professional journals, pamphlets, radio, school, and television. For each information source, the respondents identified the last time they accessed that source related to stuttering, indicated whether or not that information made them think more positively about PWS, and assessed whether or not the information presented was adequate.

The final group of knowledge questions consisted of 25 true/false items about the basic facts related to the disorder. Responses to these items and the average items answered correctly were used as a measure of participants' knowledge of stuttering. Thus, participants' knowledge of stuttering was operationally defined by the total number correct responses and the percentage of items correct from these 25 items.

Recruitment and Participants—Potential participants were approached in a variety of public settings in Northwest Ohio (e.g. libraries, businesses, schools, and a university student union). In all, 200 surveys were distributed by hand to randomly selected respondents and 189 surveys were returned, which corresponds to a response rate of 94.5%. Four participants indicated that they stuttered and were excluded from the study. As a result, 185 usable questionnaires formed the data set for this study.

Forty-two percent of the participants were male and 58% were female. The participants reported their ages by choosing from four possible age ranges (item #3 on the questionnaire). Thirty-eight percent of the sample reported being 18–24 years old; 35% reported being 25–44 years; 25% reported being 45–64 years; and 2% reported being 65 and older. Due to the nature of this data, the researchers were unable to calculate a mean age. In terms of ethnicity, 89% of the participants reported being Caucasian; 4% were Hispanic/Latino; 3% were African-American; and 2% were Asian. The participants held a variety of occupations. Ninety-eight percent had graduated from high school and 60% had completed at least one university degree.

Data Analysis—The researchers analyzed the survey responses using a combination of descriptive methods and correlation analysis. Descriptive statistics including frequencies (percentages), means, and standard deviations were used when appropriate to describe the participants' responses to an individual item. Total mean scores were calculated for the true and false items and were correlated with reports of experiences with information sources about stuttering. Pearson correlation coefficients were used for this analysis.

Results

Sources of Information

The participants were asked to report their experiences with a variety of information sources. For each item, the participants shared if and when they accessed each source, whether the information contained in the source made them think more positively about PWS, and whether they believed the information provided them with adequate information. Only 55% of the respondents reported having accessed information about stuttering from any of the information sources. Television programs and school were the most frequently accessed sources of information (39% and 33% of respondents, respectively). The Internet and the radio, on the other hand, were each accessed by 9% or fewer of the participants. Access to information sources was primarily done “long ago” (the most frequent response).

Nine percent of the participants accessed the Internet for information related to stuttering, in most cases two or more years prior to survey completion. Though, 44% of the sample either agreed or strongly agreed that the Internet made them feel more positively about PWS, half the individuals indicated that they neither agreed nor disagreed with item. None of the participants reported that it made them feel more negatively toward PWS. Only 19% of those who accessed the internet believed the information was adequate, and 44% neither agreed nor disagreed with this statement.

Nineteen percent of the participants reported finding information about stuttering in magazines; however, most of these participants had not accessed the information in the year prior to completing the survey. Of these participants, 56% agreed or strongly agreed that the information made them feel more positively about stuttering. Thirty-seven percent agreed that the information found in magazines was adequate, while 46% neither agreed nor disagreed with this item.

The next information source assessed by the participants was newspapers. Twelve percent of the participants reported having found information about stuttering in newspapers. Most of these individuals had not accessed this information in the year prior to the survey completion. Forty-three percent of the sample agreed or strongly agreed that the information made them feel more positively about PWS and 39% neither agreed nor disagreed. Thirty-nine percent of the sample neither agreed nor disagreed that the amount of information in newspapers was adequate, while 35% reported that the information was adequate.

The highest percentage of participants, 39% of the sample, had seen information about stuttering on television programs. Most of these individuals had not accessed this information in the year prior to completing the survey. Sixty-one percent reported that they agreed or strongly agreed this information made them feel more positively about PWS. Forty-three percent neither agreed nor disagreed that this information was adequate, and 38% agreed or strongly agreed that the information was adequate.

Only 8% of the sample had heard information about stuttering on the radio, though most had not heard this information in the year prior to completing the survey. Half these individuals agreed or strongly agreed that this information made them feel positively about PWS, and

36% neither agreed nor disagreed with this statement. Forty-three percent of those hearing information on the radio agreed that this information was adequate, and 43% neither agreed nor disagreed with this statement.

Thirty-three percent of the sample had found information about stuttering in school. Almost all these individuals had received that information over a year prior to completing the survey. Fifty-eight percent of these individuals agreed or strongly agreed this information made them feel more positively about PWS, and 39% of these individuals neither agreed nor disagreed with the statement. Only 30% of those receiving information in school agreed or strongly agreed that the information was adequate, and 43% of the respondents neither agreed nor disagreed.

The next source of information that participants were asked to evaluate was books, and 25% of the sample had received information about stuttering from this source. Most had had this experience long ago. Fifty-five percent of these respondents agreed or strongly agreed that the information made them feel more positively about PWS, and 33% neither agreed nor disagreed. Forty-four percent agreed or strongly agreed that this information was more adequate and 33% neither agreed nor disagreed with this item.

Twelve percent of respondents had accessed information about stuttering from professional journals. Of these individuals, 65% agreed or strongly agreed that this information made them feel more positively about PWS. Forty-four percent of the individuals who had accessed this information from professional journals reported this information being adequate, and 43% neither agreed nor disagreed.

Like newspapers and professional journals, 12% of the sample had found information about stuttering in pamphlets. Most of these individuals had not done so in the year prior to the survey being completed. Sixty-four percent of these respondents reported that the information made them feel more positively about stuttering, while 32% neither agreed nor disagreed. Similarly, 64% of those who had received information about stuttering from pamphlets agreed or strongly agreed that this information was adequate, and 32% neither agreed nor disagreed.

The final information source that respondents were asked to report was whether they heard a lecture or presentation outside of school about stuttering. Twelve percent reported that they had received information about stuttering from this source, and most of the respondents had not received this information in the year prior to the survey being completed. Sixty-eight percent of the sample agreed or strongly agreed that this information made them feel more positively about stuttering. Fifty-nine percent of the sample reported that the information they received was adequate.

Knowledge of Stuttering

Knowledge of stuttering was operationally defined as the percentage correct responses to the 25 true/false questions included on the questionnaire. The participants answered these questions with an average of 67% accuracy ($SD=2.46$), and the average score for the group was 16 correct answers out of 25. The lowest score was 9 correct and the highest was 23 of 25 items correct. Respondents answered individual items correctly with accuracies between 15% and 97%. Twelve of the items were answered correctly by over 70% of participants, seven items were answered correctly by between 50% and 69% of participants, four items were answered correctly by between 30% and 49% of participants and only two items were answered correctly by less than 20% of participants.

Knowledge and Information Sources

The participants' knowledge scores were correlated with their experiences with the different sources of information. From this analysis, only two of the correlations were significant. First, as the participants disagreed with the statement that the radio provided adequate information about stuttering, their total knowledge scores tended to be lower ($r=.596$; $p<.01$). Second, as the participants agreed with the statement that books provided adequate information about stuttering, their total knowledge scores were higher ($r=-.471$; $p<.01$). These results should be interpreted with caution, due to the small number of participants having accessed any one of these sources.

Discussion

The goal of the present study was to contribute to the understanding of societal knowledge of stuttering by surveying individuals who do not stutter regarding their knowledge and experiences with information sources about stuttering. Knowledge about stuttering was operationally defined as percentage correct on the 25 true/false items. The average respondent was correct on 16 of the 25 items, or 67% of the time. This is similar to findings from other studies (Crowe & Cooper, 1977; Crowe & Walton, 1981; Hult & Wirtz, 1994; Hurst & Cooper, 1983; Van Borsel et al., 1999). For many of the true/false items, the participants' responses suggested that the group was well informed regarding certain facts about stuttering. For other true/false items, it was apparent that the participants were less informed or misinformed about stuttering. For example, less than half the participants correctly answered that reading the same passage over and over decreased the amount of stuttering (49%), that some moments of stuttering last less than two seconds (49%), that stuttering is usually not the result of psychological problems (48%), that PWS tend to talk just as much as people who do not stutter (37%), that PWS have underlying physical differences that cause them to stutter (16%), and that PWS tend to stutter more on the phone (15%). These findings suggest there are some facts about stuttering that are more likely to be known to the general population and some facts that are less well known. For future research, it would be helpful to explore what facts are more likely to be known about stuttering and how this information was obtained by certain individuals.

In this study, just over half of the participants reported accessing at least one source of information about stuttering in the past. None of the information sources presented in this study were accessed by more than 39% of the sample. In addition, none of the participants reported accessing information sources in the year prior to completing the survey. There are two possible explanations for this finding. First, there may simply be few sources of information about stuttering available in the media. It was beyond the scope of the present study to explore how many sources were available to this group. Another potential explanation is that the participants lacked interest in stuttering and had not attempted to access information about stuttering.

A promising finding in this study was that many participants who accessed certain sources reported that each source was adequate and made them feel more positively about stuttering. Therefore, it appears that those individuals who accessed information sources felt educated and positive following their experience. Of course, there is no way of knowing whether there was an adequate amount of information or whether the information carried a specific message targeted to make its audience feel more positive. Finally, the findings do not allow for the identification of a specific source that might better provide a more substantial amount of information and determine to what extent information would change how someone feels about stuttering.

There were few correlations between information sources accessed and knowledge of stuttering. In general, this finding might be affected by the relatively few information sources accessed by the group and the type of information contained on the sources. Future research exploring the relationship between type of information sources and knowledge of stuttering should control for the types of sources, amount of access, and the expected knowledge that participants should gain from such sources.

Limitations and Conclusions

A primary limitation of this study is that the participants surveyed lived in only one geographic area (Northwest Ohio). It might have been more informative to gather data from a 58 sample representative of the entire United States. Future research should attempt to include a much larger sample, which matches the diversity of the population of the United States. Second, the study assumed that there were certain information sources that might be accessed, but it might be argued that not all of the possible sources of information were included in the study. It will be important to evaluate all possible sources of information about stuttering, and future studies might be designed to explore this issue further. Third, results of this study need to be carefully interpreted due to the survey instrument's lack of reliability. The survey instrument was developed for the primary purpose of answering the research questions posed in this study, of which the goal was to gain descriptive information about the participants' attitudes, experiences, and knowledge with stuttering. As such, comprehensive data on the survey's reliability were not gathered. It should be noted that the items on the questionnaire used in this study were developed following a review of a number of studies that incorporated similar instruments. Additionally, the pilot study was conducted in order to check the survey's thoroughness and content, and no significant changes resulted from the pilot data. Therefore, it can be assumed that the survey instrument is, minimally, a valid measurement tool.

Overall, more research in this particular area is warranted. This study should be seen as an initial attempt to discuss societal knowledge of stuttering and the access to certain information sources about stuttering, as well as the effects that certain information sources have on knowledge. This area of research deserves more attention, since understanding and increasing the general public's knowledge and understanding of stuttering is important. The results of this study indicated that despite the general public's familiarity with stuttering, people lack specific knowledge about the disorder and its characteristics. The results also demonstrated that a large part of the general public has not accessed information about stuttering, and those who reported accessing information accessed it a long time ago. In addition, most of the participants had not accessed a variety of information sources, this is troubling given the large number of resources available about stuttering, especially on the internet (Tellis, et al., 2002). Future research should consider exploring how to better inform the general population about stuttering and which sources are most effective and accessed most often by people interested in learning more about stuttering. By discovering the sources of information that are most readily accessed by those who are the most interested, the field may be better able to educate the general public about stuttering.

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