

Education and Changing the Perceptions of Stuttering

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Abstract

The purpose of this research is to determine how stuttering is viewed, how the perceptions of stuttering have changed over time, and whether education about stuttering will alter listener's perceptions toward the disorder and the speaker. One of the most widely and effectively used therapy techniques associated with Successful Stuttering Management is self-advertising. This therapy technique involves stutterers notifying their listener that they stutter. Studies have shown that listeners generally react more positively towards stutterers who self-advertise than those who do not. This research explores this idea, that the education about stuttering positively alters listener's perceptions towards the speaker, by analyzing the differences in how stuttering is perceived in groups who are educated about stuttering and groups who are not. The methodology used included an extensive literature review of studies that look at how stuttering is perceived and how perceptions changed over time. Additionally, an experiment was designed in the form of a two part research study. The first part consisted of interviews from college students in General Education classes at Eastern Washington University. This was used to understand, more in depth, how stuttering is viewed from the general public. The data collected from the first part of the study was used to make a survey about the perceptions of stuttering to be distributed to a larger sample of students. These students were split into two groups. The first group simply answered the survey questions. The second group received brief education about stuttering and then answered the survey questions. The findings from these two groups were compared and analyzed to find that there is significant difference, concerning several characteristics, to infer that simple education about stuttering, familiarity with a stutterer, and/or exposure to stuttering (other analyses that were also considered) do positively alter perceptions about the disorder and the stutterer, at least for those characteristics. The results of this research study can be used to advocate for an increase in the education of stuttering in order to reduce the stigma associated with the disorder and the speakers.

Keywords: Stuttering, Perceptions, Education,

1. Introduction

The purpose of this research study is to understand what people think about stuttering and persons who stutter (PWS), what kinds of value judgments they hold and limitations they place on persons who stutter due to their speech; and how basic education about stuttering can alter that. Stuttering is a communication disorder that affects approximately 68 million people in the world, or about 1% of the world's population. It is present in every country, affecting all genders, ethnicities, and cultures.¹ We currently do not know what causes stuttering, but leading research points to four primary factors that contribute to this speech disorder. These factors are genetics, child development, neurophysiology, and family dynamics.² Stuttering is physically characterized by repetitions or prolongations of single sounds, words, and sentences or involuntary silent blocks.³ Everyone stutters occasionally; Speech-Language Pathologists call these normal disfluencies. These usually occur when one is emotionally charged (nervous, excited, fearful, etc.) and usually do not greatly affect a person's quality of life and self-esteem. Persons who stutter, on the other hand, are people for whom stuttering is frequent or severe enough that it does impact their

quality of life and/or their self-esteem. Usually, but not necessarily always, persons who stutter stutter more often than people who just have normal disfluencies. This is the rule, but there are some exceptions in which some people have more normal disfluencies than some persons who stutter have stutters in their speech. This is because stuttering is not simply characterized by the physical manifestations of stuttering; it goes deeper than that, with the presence of secondary behaviors (such as eye blinking, head jerking, foot stamping, and avoidance) and an emotional reaction to oneself as being a person who stutters. This emotional reaction is due both to how the person who stutters think of themselves because of their speech and how they perceive what society thinks of them (whether true or not).⁴ This reaction can be extreme and greatly impact a person who stutters' quality of life. Many persons who stutter are fearful of speaking situations, especially ones that are stressful or over the telephone. Many persons who stutter are so afraid of stuttering that they avoid these situations, avoid certain words they know they will stutter on, or avoid speaking altogether.

The perceptions of stuttering and persons who stutter have been shown, by countless research studies, to be very negative. Many research studies conducted tests to determine what kinds of negative characteristics were perceived as being associated with persons who stutter. Some of the characteristics that the previous studies have found were concerned with personality traits such as self-esteem, anxiety, intelligence, extroversion and introversion, social appeal, emotional stability, social adjustment, stress level, sensitivity, shyness, fear, insecurity and quietness.⁵ Other characteristics measured related to ability to function and excel in daily activities. Some of these characteristics included: competence, employability, education, and limitations in what types of activities they can do and what types of jobs they can perform effectively.⁶ Negative perceptions of a person can greatly impact a person's quality of life and how they view themselves. This has contributed to the negative emotions that persons who stutter deal with.

The idea, of using education to change these perceptions, is based on the therapy technique of self-advertising. Studies have shown that this technique does improve perceptions from the listener and makes the person who stutters feel more at ease with communication.⁷ Self-advertising is a therapy technique that is widely used in the Stuttering Modification school of thought in Speech-Language Pathology. The Stuttering Modification school of thought arose in order to combat the negative emotions held by persons who stutter towards themselves. This school of thought has a different focus than the fluency shaping school of thought. Traditional fluency shaping focused largely on teaching the person who stutters how to avoid stuttering by using speech tools in order to change how the person who stutters speaks, producing more fluent speech. This often produces speech that sounds unusual to both the person who stutters and the listener and can create more negative emotions for the person who stutters, believing that they must change the way that they speak. This often causes them to feel embarrassed or afraid of speaking in fear of stuttering. This school of thought does work for some persons who stutter and it is a viable therapy option. For others, who are less concerned about fluency and more concerned about effective communication, the Stuttering Modification school of thought works better for them. Proponents of this school seek to address these negative emotions in order to help the person who stutters to stutter confidently, stutter more easily - avoiding secondary behaviors and with less pain and duration - and become effective, confident communicators. In essence, saying what they want to say, when they want to say it. The Successful Stuttering Management Program is a program that arose from this school of thought. It was founded by Dr. Dorvan Breitenfeldt, clinician and professor emeritus at Eastern Washington University. This therapy program encourages persons who stutter to stutter openly and comfortably and to focus on effective communication rather than worrying about the possibility of stuttering. Some techniques that are used in this therapy program are voluntary stuttering (stuttering on purpose) and self-advertising. Self-advertising is a therapy technique where the person who stutters informs the listener of the fact that they stutter and provides brief information and education about stuttering early on in the interaction. This allows the person who stutters to feel more at ease with speaking and less fearful of stuttering (and receiving a shocked or weird look from their listener unexpectedly). Self-advertising not only makes the person who stutters more comfortable, but also the listener. This reaction has been documented by Collins and Blood's study showing that persons who stutter and self-advertise are perceived more positively than those who do not.⁸ This technique can, over time, promote more positive perceptions of stuttering for the general public by educating each listener the person who stutters comes into contact with. Therefore, an experiment such as mine can increase the number of educated listener much more rapidly by applying this technique more broadly to the general population.

2. Methodology

This research, which involves gathering data on the public's perceptions of stuttering and analyzing how those perceptions can be altered by exposing the respondents to brief information about stuttering, takes this idea further by promoting the use of basic education about stuttering to the general public to see if perceptions are improved in the same way as they are for persons who stutter and self-advertise. In order to conduct this research, seven EWU students were interviewed to see if the perceptions that they held were similar to the perceptions that previous research studies had found. These results were compiled to make a survey of the types of perceptions held by this sample of students to be distributed them to a larger number of students. This larger group of students were split into two groups, a control and an experimental group. The control group was simply asked to fill out the survey. The experimental group was asked to fill out the same survey, however, they first received basic education about stuttering in the form of a one-two minute speech. These two groups were then compared to see if there were significant differences between the control group and the experimental group in regards to the types of perceptions that they held towards persons who stutter. The question was whether this therapy technique of self-advertising could be applied more broadly and generally to improve perceptions when it is not a person who stutters giving the basic information. The importance of this was to understand whether these perceptions improved because of the education about stuttering or the fact that the person who stutters gave the education.

In order to understand the perceptions of stuttering in the hopes of improving perceptions, interviews were conducted in order to understand what EWU students think about persons who stutter, as a way of better understanding what the population as a whole, thinks about persons who stutter. Each interview lasted between 30 minutes and 2 hours, and they consisted of in depth questions in order to gain a qualitative understanding of the kinds of perceptions held by a sample of people who represent the population of interest. In these interviews, the informants were asked questions about what their first impressions of persons who stutter were and what they, generally, thought of persons who stutter. They were then asked about any perceptions they held, and what they knew about stuttering (what causes it, what it is, what it sounds like, etc.). The sample that was used was composed of college students at Eastern Washington University enrolled in general education classes. Many of these students were freshmen and sophomores; however, there were also upper classman. Seven students who were enrolled in Anthropology 101 were interviewed. None of these students stuttered, however several of them knew a person who stutters (with relationships from a sibling to a friend or acquaintance). Each knew a little bit about stuttering. However, most were very uneducated about the disorder and its causality. This sample was used as a representation of the population of EWU students. The number of interviews conducted was large enough to give an idea of what EWU students thought about persons who stutter and whether or not their perceptions were similar to perceptions found in previous research studies. The qualitative data from these interviews was then used to make a survey, collecting quantitative data regarding how the population of EWU students, at large, perceives stuttering and how educating one of the two samples might change those perceptions.

The seven people that represented the EWU student population held very similar views to previously used research samples. The characteristics found in previous studies (as noted previously) were all mentioned by the interview informants. Largely, the perceptions about stuttering and persons who stutter were negative and limiting, similar to the previous research studies. When asked about the perceptions that they and society held about persons who stutter, characteristics that this sample noted were very similar to results found in the literature review. Interestingly, the more negative perceptions tended to be from people who either had less exposure to stuttering or from people who had grown out of stuttering (and thus felt they were superior to those who still stutter). In summary, there was a variety of negative perceptions towards persons who stutter from all of the research informants; however, there was a higher prevalence and greater severity of negative perceptions from people who were less educated about stuttering (lack of exposure, the idea that everybody has the ability to grow out of it, causality, etc.). In summary, the results found in these interviews indicated that the sample of EWU students used held similar perceptions to the past research studies' samples and allowed for potential different ways of analyzing the results. Therefore, I could continue to the next step of the research design: the survey.

The data from this research and similar studies done previously has shown an overwhelming consensus towards a negative view of stuttering and stuttering with assumptions and perceptions that are not necessarily related to stuttering or all persons who stutter generally. This suggests that society's views are not drawn from interactions with persons who stutter or other reliable sources. Instead, their views are drawn by assumptions they, themselves, have made and perhaps, the media and other popular culture sources. With that understanding, it seems that the necessary steps to take to change these perceptions are to educate the public about stuttering and persons who stutter. Much like how Collins and Blood's research study showed that people viewed persons who stutter more

positively when they self-advertised about their stuttering than when they didn't, this may be applied more broadly to the general public by educating people about stuttering. This would give them an accurate, realistic understanding and view of persons who stutter and could limit future discrimination that they – as employers, other managerial/leadership figureheads and citizens in general – might ensue upon the persons who stutters that they interact with due to these negative, uneducated views that they currently hold. My hypothesis is that when people are educated, even at the most basic level, about stuttering (what it is, what causes it, how it affects a person who stutter and their functioning in daily life, etc.), than these negative perceptions will be changed. The hope is that this change in perceptions will be more positive, less limiting or discriminatory, and more accepting.

In order to test this hypothesis, an experiment was designed to determine whether basic education about stuttering does, in fact, change perceptions of stuttering, whether that be positively or negatively. Using the data from the interviews and previous studies, a survey was made that asked about what they, the respondents, thought about persons who stutter; and what kinds of value judgments and limitations they place on them due to their speech. Specifically, the characteristics addressed on the survey had to do with value judgments such as intelligence, anxiety, introversion, shyness, attention seeking, and hygienic. Additionally, the kinds of limitations that were asked in the survey included professional, academic, and daily functioning abilities. There were also a series of demographic questions identifying whether the respondent was a person who stutters, whether they knew a person who stutters, and how much they [thought] they knew about stuttering. This survey was then given to 450 students at Eastern Washington University who were enrolled in general education requirement classes. These students were split into two groups before they were given the survey. The groups were split as evenly as possible, however, the control group had more students due to incomplete surveys (which were not used) and students who chose not to participate. The first group was the control group and consisted of 230 students. The second group was the treatment or experiment group and it consisted of 220 students. The first group simply took the survey. The second group, however, received basic education about stuttering prior to taking the survey. These two sets of data were transcribed to determine if there was a significant enough difference between the control group and the experiment group to suggest that education about stuttering does, in fact, alter perceptions. A Pearson Chi Squared statistical test was used in order to analyze the differences between the two groups. This test was chosen due to the qualitative nature of the survey responses.

3. Results

The findings from the survey showed some noteworthy trends differing slightly from anticipated. As far as demographic information, it was interesting to see how many people actually somebody who stuttered. The number was much higher than anticipated, with 52% of the control group and 47% of the experimental group knowing somebody who stuttered. Additionally, 9% of each of the samples identified as persons who stutter, either as a child or an adult. For the final demographic question, the survey asked the respondent to rate, on a scale from 1 to 5 how much they knew about stuttering (with 5 being very familiar and 1 being very unfamiliar). The average score for the control group was 2.6 and the average score for the experimental group was 2.4. The fact that the control group showed slightly higher percentages regarding their familiarity with a person who stutters and knowledge about stuttering should be considered when understanding the other research findings concerning perceptions. Also to note regarding these demographic statistics is whether or not the mean of how much the respondents knew about stuttering, for the experimental group, was so low because they knew less (than, say, the control group) or because they realized that they knew less than they thought they did after hearing the education about stuttering speech.

After analyzing the differences between the two groups, there were not many statistically significant differences, however there were some. In the tables below, this analysis is called, "Groups". The lack of statistically significant differences may be due to the sample size. There were many additional characteristics that were close to being statistically significant, however, they were not. Perhaps with a larger sample size, these differences may have been statistically significant. Additionally, it may be due to the uncontrolled variables in the experiment as mentioned above. In order to address some of those considerations, another Chi Squared statistical test was run. This time, looking at how knowing a person who stutters changed perceptions. In order to code this, I disregarded whether they were in the control group or the experimental group and merely looked at their perceptions based on whether or not they knew someone who stuttered. More statistically significant differences were found. In the tables below, this analysis is called, "Familiarity". Since this test did not consider whether they were in the experimental group or the control group, some of the results may have been skewed by the education that the respondent received prior to taking the test. Therefore, another Chi Squared statistical test was run in order to see how exposure to stuttering, in

general, changes perceptions. For this, the groups were separated into an exposed group and an unexposed group. The exposed group was composed of the entire experimental group and respondents in the control group who knew somebody who stuttered. The unexposed group, was composed of respondents in the control group who did not know someone who stuttered. Essentially, I was looking at how being exposed to stuttering, either by knowing a person who stutters or receiving education about stuttering, altered perceptions. In the tables below, this analysis is called, “Exposure”. Below are charts that illustrate the findings. Each characteristic listed in these tables were statistically significant (two tailed $\alpha = .05$).

Table 1. perceptions in the “right” (positive, accepting, less lim

<u>Characteristic</u>	<u>Test</u>	<u>Significance Value</u>
<u>In two of the three:</u>		
Anxious or Fearful (long term)	Groups and Exposure	.049 (groups), .026 (exposure)
<u>One of the three</u>		
Hard to get to know (long term)	Exposure	.03
Not able to perform tasks (long term)	Exposure	.024
Difficulty in everyday communication (long term)	Exposure	.044
Something wrong with them (long term)	Familiarity	.007

iting/discriminatory) direction

As shown in Table 1, the largest improvement in perceptions was seen in the exposure analysis. This illustrates that education about stuttering in some form, whether by a person who stutters personally or via education about stuttering in the form of a speech, can improve perceptions.

Table 2. perceptions in the “wrong” (negative, limiting, discriminatory) direction

<u>Characteristic</u>	<u>Test</u>	<u>Significance Value</u>
<u>Two of the three</u>		
Speaks too quickly (first impression)	Familiarity and Exposure	.016 (familiarity), .006 (exposure)
<u>One of the three</u>		
Shy or withdrawn (long term)	Groups	.027

The results shown in Table 2 may be due to misunderstanding or misinterpretation of the survey questions or other factors that were not considered in the experiment. For example, this table indicates that respondents who knew a person who stutters or were exposed to stuttering, in some form, were more likely to think that persons who stutter spoke too quickly. This may be because this characteristic was addressing first impressions, not long term opinions. Additionally, it may be because the persons who stutter that they knew did speak quickly. With the shy or withdrawn characteristic having more negative perceptions in the experimental group, this may be because they believe that persons who stutter become shy or withdrawn because of the perceptions people (like themselves) hold towards them. Additionally, these results may have been caused by other factors not considered here.

Table 3 shows the characteristics that showed interesting results in the statistical analyses. Depending on which analysis that was done, there were very different results (in the form of statistical values).

Table 3. results differing considerably depending on statistical analysis

<u>Characteristic</u>	<u>Test</u>	<u>Significance Value</u>
<u>In the “right” direction</u>		
Something wrong with them (long term)	Familiarity	.007
Something wrong with them (long term)	Groups	.848
<u>In the “wrong” direction</u>		
Shy or withdrawn (long term)	Groups	.027
Shy or withdrawn (long term)	Exposure	.929

Table 3 shows that knowing a person who stutters made respondents less likely to believe that there was something wrong with them, but education about stuttering did not seem to have an impact on this perception. This table also shows that having exposure did not have an impact on whether the respondents thought that persons who stutter were shy or withdrawn. However, the experimental group was actually more likely to think that persons who stutter are shy or withdrawn than the control group. This result was also seen in Table 2. See above for why this may be.

In the data analysis, both groups tended to have more positive perceptions of persons who stutter than the studies in the literature review and the small sample of interviews. For most of the questions that attempt to look at negative perceptions held, most of the responses, from both groups, trended toward the positive perception answer

rather than the negative. This is an interesting observation that should be researched more in order to determine whether the specific sample of EWU students used held more positive perceptions than the general public (perhaps due to their greater amount of exposure) or whether it is because EWU students, generally, hold more positive perceptions. Also to consider is whether the general public is beginning to think more positively about persons who stutter than shown in previous studies.

4. Conclusion

In conclusion, the experiment did seem to show that basic education, familiarity, and exposure to stuttering and persons who stutter does improve perceptions about stuttering and persons who stutter. Therefore, for this experiment, I was able to reject the null hypothesis that education about stuttering does not change perceptions and adopt the alternate hypothesis, that education does change perceptions, specifically, in a positive way, generally. This idea can be applied to stuttering education in the public more generally. If something as simple as a 2 minute speech about some basic elements of stuttering improved perceptions in this experiment, the effect of education about stuttering on the general public may be able to improve perceptions even more - qualitatively and quantitatively. If this education begins at a young age, the rates of bullying due to negative perceptions of stuttering may go down. Additionally, this principle may be able to be applied to various other conditions and differences, such as other speech problems like articulation problems and language learning problems, psychological problems, medical problems, personality differences, learning styles, racial and cultural differences, and many others. Simple, brief education about stuttering and, potentially, these other issues may one tangible way to decrease the rate of bullying and promote more diversity, acceptance and tolerance for all kinds of people.

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