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Gender Differences in Communication with People Who Stutter: A brief research of Attitude, Subjective Norms and Behavior Intention

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ABSTRACT

The most important role of language is its communicative function, stuttering can disrupt this function. Our study focused on exploring gender differences in attitude, subjective norms and behavior intention toward communication with people who stutter. This cross-sectional study is based on 240 boys and girls high school students in Hamadan County, the west of Iran, during 2013. Participants filled out a standard self-report questionnaire. Data were analyzed by SPSS version 21 using bivariate correlations, and linear regression statistical tests at 95% significant level. Our findings showed, attitude and subjective norm variables accounted for 59% of the variation in the outcome measure of the behavioural intention ($R^2=59\%$ & $P<0.01$). Girl students have a better subjective norm and more intention to communicate with the people who stutter. Wrong beliefs could have prevented normal communication, due to misconceptions about people who stutter, our study recommends implementing training programs in order to change wrong beliefs about people who stutter especially for the adolescents.

Key words: Stuttering, Adolescents, Communication

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1. INTRODUCTION

The most important role of language is its communicative function (1). Some aberrations such as stuttering can disrupt this function; people who stutter have difficulty moving from one sound to the next in a word, or have difficulty getting that sound started after it has stopped as it appears in the normal process of speech (2). Stuttering among boys is more common than in girls (3). Children who stutter is mostly because of anxiety, fear and

frustration Induced of stuttering, usually when confronted with a question in class they were elusive from answering (however in many times knows the answer), also they may not participate in children's play and these Issues have a negative impact in their learning process (4). Stuttering also have, a negative impact on the quality of life; especially in adolescents and youth for communicating with peers and opposite sex and will be difficult for people who stutter (5). . Social consequences negative of stuttering (such as: stigma

and less likely) during the school has been demonstrated in several studies (6). Negative attitudes towards people who are stuttering might lead to the formation of stereotypes, which could underline the isolation of person, lack of experience in various positions and excluded from reception of public services (7). Several studies have been investigated among beliefs about the people who stutter among different populations (8, 9). Between early adolescents, peers are an important source of positive experiences and they are happiest when talking with their peers (10). Wrong beliefs could have prevented normal communication, regarding absence of studies in our country, our study focused on exploring gender differences in attitude, subjective norms and behavior intention communication with people who stutter between sample of Iranian adolescents in the Hamadan County, the west of Iran.

2. MATERIALS AND METHODS

This cross-sectional study was conducted on a group of Iranian boys and girls high school students as samples in Hamadan County, the west of Iran, during 2013. The sample size was calculated at 95% significant level according to the results of a pilot study and a sample of 240 members was estimated. Of the population of 240, 215 (89.5%) signed the consent form and voluntarily agreed to participate in the study, which has been approved by the Institutional Review Board at the Hamadan University of Medical Sciences.

2.1. Measures

Prior to conducting the main project, a pilot study was conducted to assess the utility of the instrumentation. The pilot study participants were 30 high school students, similar to those who participated in the main study. The pilot study was conducted to obtain feedback about the clarity, length, comprehensiveness and completion time of the various instruments, as well as collecting data to estimate the internal consistency of the measures. Background data collected were age, gender, father and mother education, father and mother job, parent divorce, and bilingual. Attitude toward people

who were stuttering was measured by a 14-items standard scale CRONBACH'S alpha indicated that the attitude scale in this study was a possessed good internal reliability (0.74) (7, 9). Subjective norm toward communication with people who stutter was designed based on standard questions and responses by using six items, for example: "If I communicate with people who are stuttering, my family will confirm it. CRONBACH'S alpha showed that the scale possessed good internal reliability (0.87). Behavioral intention towards communication with people who stutter was designed based on standard questionnaire, and responses to 3 items, for example: "If people who stuttering well be around me, I communicate with them (9). CRONBACH'S alpha for the behavioral intention scale was (0.77).

2.2. Statistical Analysis

Data were analyzed by SPSS version 21. Descriptive statistics were used to summarize and organize the data. Bivariate correlations were computed to ascertain the magnitude and direction of the associations between the attitude, subjective norms and behavioral intention. Linear regression analysis was performed to explain the variation in the behavioral intention. Also to explain mean scores gathered from the attitude, subjective norms and behavior intention toward communication with people who are stuttering between boys and girls were used, independent t-test.

3. RESULTS AND DISCUSSION

The mean score of age was 15.34 [95% CI: 15.18, 15.51], ranged from 14 to 18 years. Regarding the gender: 51.2% (110/215) boys, and 48.8% (105/215) were girls. Furthermore, 6.5% (14/215) reported that their parents were divorced. In addition, 36.3% (78/215) of students were reported that of bilingual (Persian and Turkish or Kurdish). Table 1 shows bivariate associations among the attitude, subjective norms and behavior intention. The findings indicate, attitude was strongly significantly related to intentions ($r = -0.732$), and subjective norms ($r = -0.535$). Additionally, subjective norms was significantly related to the intention ($r = 0.594$).

Table 1. Correlation between attitude, subjective norms and behavior intention

Variable	Mean (SD)	X1	X2	X3
X1. Attitude	44.31 (8.95)	1		
X2. Subjective Norms	16.52 (4.97)	-0.535	1	
X3. Intention	6.76 (2.50)	-0.732	0.594	1

Correlation is significant at the 0.01 level.

As can be seen in Table 2 linear regression analysis was performed to explain the variation in intention to communicate with people who are stuttering, and our results showed on 1st step the procedure stopped and the best model was selected, attitude and subjective norm variables accounted for 59% of the variation in the outcome measure of the behavioural intention.

Table 2. Predictors of the intention to communicate with people who stuttering

Variable	B	SE B	B	t	p-value
Attitude	-0.162	0.014	-0.580	-11.194	<.001
Subjective Norms	0.143	0.026	0.284	5.474	<.001

Adjusted R squared = 0.59, P <.001.

In Table 3, it has been showed that mean scores accrued of the attitude, subjective norms and behaviour intention toward communication with people who are stuttering among boys and girls. As we can see in table 3, boy students have a lower negative attitudes, higher encouraging subjective norms and behavior intention to communicate with people who are stuttering.

Table 3. The mean scores accrued of the attitude, subjective norms and behavior intention toward communicate with people who stuttering among boy and girl

Item	Boy Mean (SD)	Girl Mean (SD)	P-value
Attitude			
sincere – insincere	2.39 (1.25)	2.60 (0.95)	0.170
likable – not likeable	3.27 (1.47)	4.04 (1.29)	<0.001
trustworthy – not trustworthy	2.68 (1.50)	2.80 (1.43)	0.556
decisive – indecisive	3.77 (1.56)	4.06 (0.85)	0.087
physically normal – physically abnormal	3.29 (1.59)	6.60 (1.30)	0.109
reliable – unreliable	4.62 (1.36)	4.33 (0.94)	0.067
good sense of humour – poor sense of humour	3.36 (1.45)	4.06 (1.44)	<0.001
mentally stable – mentally unstable	2.13 (1.00)	3.59 (1.37)	<0.001

unstable			
sociable – unsociable	2.03 (1.38)	2.79 (1.41)	<0.001
friendly – hostile	2.30 (1.12)	3.78 (0.93)	<0.001
strong character – weak character	3.74 (1.55)	3.93 (1.24)	0.328
intelligent – unintelligent	2.60 (1.09)	2.66 (1.45)	0.744
employable – unemployable	2.39 (1.34)	2.47 (0.97)	0.594
emotionally adjusted – emotionally maladjusted	2.52 (1.20)	2.86 (0.96)	0.023
Total Attitude:	41.18 (8.79)	47.59 (7.92)	<0.001
Subjective Norms			
If I communicate with people who stuttering, my family will confirm it.	2.88 (0.72)	2.26 (0.77)	<0.001
If I communicate with people who stuttering, my friends will confirm it.	2.99 (0.98)	2.25 (0.84)	<0.001
My teacher are encourage me for communicate with people who stuttering.	3.31 (1.03)	1.99 (0.82)	<0.001
I accepted my family opinion for communicate with people who stuttering.	3.25 (1.06)	2.20 (0.75)	<0.001
I accepted my friends opinion for communicate with people who stuttering.	3.30 (0.96)	2.46 (1.02)	<0.001
I accepted my teacher opinion for communicate with people who stuttering.	3.52 (0.72)	2.33 (1.19)	<0.001
Total Subjective Norms:	19.27 (4.37)	13.64 (3.80)	<0.001
Behavioral Intention			
I Intend to communicate with people who stuttering.	2.50 (1.13)	1.86 (0.80)	<0.001
If people who stuttering well be around me, I communicate	2.46 (1.13)	1.80 (0.83)	<0.001

with them.					
I	would	suggest	2.77 (1.33)	2.06 (0.68)	<0.001
communicate with people					
who stuttering to my friends.					
Total Behavioral Intention:			7.74 (2.60)	5.73 (1.92)	<0.001

Determined of perceptual factors such as attitude, subjective norms and gender difference could be useful for designing a program about improving communication with people who stutter. Therefore, the main goal of this study was to explain about gender differences in attitude, subjective norms and behavior intention towards communication with people who stutter among sample of Iranian adolescents. Our findings showed that among attitude items, likable, good sense of humour, mentally stable, sociable, friendly, emotional adjustment between genders is significant, and girls have much better attitude toward people who stutter. Also, our result indicated that girl students have better subjective norms and more intention to communicate with people who stutter. In this regard, NOWICKI and SANDIESON noted that girls were found to be more accepting of persons with disabilities than boys (11). However, St Louis in their study reported public attitudes were very similar between male and female respondents (12). Mean score of attitude scale in our study was a 44.31 (8.95) and participants received 45.2% of the maximum score for the attitude; in this regard, LANGEVIN et al and MC DOUGALL et al in their studies reported of student attitudes toward peers with disabilities. Close to one-fifth of participants had mean scores that were near to very negative (6, 13). BLOODETEIN notes that personality characteristics are not directly related to speech fluency and are similar between stuttering and non-stuttering people (14). However, several researches have reported that most of people hold negative attitudes or stereotypes toward persons who stutter (15, 16). For example, type of negative stereotypes about stutterers include, that stutterers have psychological problems or stutterers should not work in various kinds of jobs (17). In other hand, these studies indicated that the perceptions of people who stutter are generally negative and not easily changed. Yet, FLYNN et al carried out a live oral or recorded video presentations study on stuttering were delivered to high school students in order, and reported their program could be positively changed high schools students attitudes toward stuttering (20). Thus, changing misconceptions about people

with stuttering could be effective in improving their health. Especially during the puberty (adolescent's period), it is very important for adolescents who stutter the attitudes and subjective norm of their peers; attitudes could be effective on communication with others. In addition, DORSEY et al in their study noted the peer students constitute an important source of social and academic support for most stuttering college students (15). It appears providing peers training through various (for example, school based training) could be useful in this context.

4. CONCLUSION

Our result showed attitude and subjective norm variables accounted for 59% of the variation in the outcome measure of the behavioural intention and attitude was best factor for predicting behavioural intention. Wrong beliefs could have prevented normal communication, due to misconceptions about people who stutter, our study recommend implementing training programs, In order to change wrong beliefs about people who stutter especially for the adolescents.

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Conflict of interest statement

The authors declare that they have no conflict of interest.

AUTHORS CONTRIBUTION

This work was carried out in collaboration between all authors.

CONFLICT OF INTEREST

Authors have declared that no conflict interests exist.

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