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Teachers' Awareness, Beliefs and Attitudes toward Pupils who are Stuttering in Upper Egypt.

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Abstract:

This study assessed teachers' awareness, beliefs of stuttering and their attitudes toward pupils who stutter (PWS) in Upper Egypt. A total of 382 teachers completed a questionnaire assessing teachers' awareness, beliefs, and their attitudes to PWS as observed by the teachers. The results indicated an overall positive attitude toward stuttering. The teachers showed adequate knowledge about PWS, were able to recognize stutterers' characteristics, and responded appropriately. Parents were not inclined to approach teachers about their children's stuttering. Teachers' understanding of stuttering was variable. Analysis of the selected demographic factors revealed no significant results for the years of teaching experience and gender on teachers' awareness, beliefs, and attitudes toward PWS. There is a general positive shift in attitudes of teachers towards pupils who stutter. There is a clear need for increased awareness and educational interventions to increase teachers' knowledge about stuttering and to reduce the stigma attached to stuttering.

Key Words: Stuttering; teachers' awareness; teachers' beliefs; teachers' attitudes; pupils who stutter.

1. Introduction

Stuttering is a neurodevelopmental disorder of speech characterized bycompulsoryinterruption as well as sound repetitions, prolongations, and silent pauses (Guitar, 2014; Limura et al., 2018). Many theories have attempted to characterize the nature of stuttering, but most

recent study data indicate that linguistic elements play a key role key in the etiology of this disorder (Conture & Walden, 2012; Howell & Au-Yeung, 2002).

Stuttering affects approximately 1% of the population (Gilman, 2012; Koutsodimitropoulos et al., 2015), and is four times more prevalent in males than in females (Yairi & Ambrose, 2013). People with stuttering (PWS) suffer from serious consequences, including social, emotional, and educational detriments, with the severity of complications affecting various aspects of life (Crichton-Smith, 2002; Hartford & Leahy, 2007; Klompass & Ross, 2004; Przepiorka et al., 2013). Subjects suffering from stuttering may have slightly lower intelligence scores than their non-stuttering counterparts (Abdalla & St. Louis, 2012; Andrews et al. 1983; Paden et al. 1999; Yairi & Ambrose, 2013).

Misunderstanding about the causes of stuttering, sometimes accompanied by negative attitudes towards people suffering from stuttering, has been reported by Gabel et al. (2015). The public may view PWS as anxious, shy, or unsociable persons (Arnold et al., 2015; McKinnon et al., 2007; Williams, 2006).

If people who are dealing with the pupil react negatively to stuttering, it can have a significant effect on the children' experience of their stutter (Blood & Blood, 2004). Negative experiences can not only have an adverse impact on the child's communicative ability, but also hinder their progress in therapy (Murphy et al., 2007). Therefore, it is important to consider teachers' thoughts, attitudes, and perceptions regarding PWS, starting from childhood, in school, where they spend plenty of time (Juster et al., 2004; Yaruss & Reardon, 2002).

If teachers hold unsubstantiated views on stuttering, it can have a negative effect on how teachers perceive PWS (Abdalla & St. Louis, 2012). Persistence of negative perceptions can have an impact on the educational process, resulting in the PWS being at a disadvantage and possibly restricting the child's potential (Bennett, 2003). It, also, can limit the PWS's ability to participate in daily activities and could negatively affect their quality of life (Abdalla &

St. Louis, 2012; Arnold et al., 2015; Boberg, 2012; Jenkins, 2010; Vezzali et al., 2012; Yaruss & Quesal, 2004).

Early and recent studies (Crowe & Walton, 1981; Heite, 2000; lee, 2013; Yeakle & Cooper, 1986) noted that teachers held negative attitudes toward PWS. Heite (2000) found that most Icelandic teachers have limited knowledge about stuttering, and that their cultural myths and stress reactions seem to influence their judgments as listeners. Lee (2013) examined perception toward stuttering by teacher in Daegu area. The results revealed that the teachers held stereotypically negative perceptions toward stuttering.

On the other hand, other studies revealed that teachers have a positive attitude toward PWS. Irani, Gabel (2008) assessed schoolteachers' attitudes toward PWS and explored the effect of familiarity and educational factors on teachers' attitudes toward PWS. The results indicated that the teachers reported positive attitudes towards both PWS and fluent speakers.

Abdalla and St. Louis (2012) examined Arab schoolteachers' knowledge, attitudes, and beliefs about stuttering. The results found that teachers were familiar with stuttering, but further education was necessary as misconceptions about the cause of stuttering, personality stereotypes, role entrapment (i.e., cannot do any job they want) and strategies for coping with stuttering (i.e., repetition of word until child able to say it, filling in words etc.) were evident.

Hobbs (2012) conducted a study to determine teachers' knowledge and perceptions of stuttering prior to and following in-service training. The results indicated that there was a relationship between knowledge and perceptions of teachers towards learners who stutter in their classroom.

Pachigar et al. (2011) conducted a mixed-method study in Mumbai. The questionnaire found broadly positive attitudes towards PWS. The interview process also highlighted a positive approach to dealing with PWS in the classroom, specifically related to decrease the pressure placed on the child, and subsequently reducing stress and anxiety.

Similar positive results were found by Irani, Abdalla, and Gabel (2012). They aimed to determine Kuwaiti Arab teachers' attitudes toward PWS and to compare their attitudes with American teachers to determine if cultural differences were present. The results indicated that Arab teachers generally showed neutral to positive attitudes towards PWS. Although both sets of teachers generally had positive attitudes toward stuttering, American teachers were significantly more positive than Arab teachers.

Three recent POSHA–S studies (Abdalla & St. Louis, 2012; Arnold, Li & Goltl, 2015; Li & Arnold, 2015) investigated teachers' attitudes towards stuttering. Abdalla and St. Louis (2012) examined teachers' knowledge, attitudes, and beliefs about stuttering. The results found that teachers were familiar with stuttering, but held misconceptions about the cause of stuttering, personality stereotypes, role entrapment and strategies for coping with stuttering.

Abdalla and St. Louis (2014) further found that the implementation of an education documentary video depicting factual and emotional aspects of stuttering was found to positively change pre-service teachers' attitudes but not those of the in-service teachers.

There is a consensus among the studies that increasing knowledge could serve as an important aspect in improving attitudes toward stuttering. So, gaining awareness about teachers' perceptions and thoughts about PWS will lead to better outcomes for PWS at all levels, including educational, emotional, and social. In addition, studies in Arabic countries regarding teachers' perception towards PWS are very limited. Therefore, the purpose of this study is to get more information about teachers' awareness, beliefs, and reactions toward PWS in Egypt.

The study is trying to answer the following questions:

- What are the teachers' awareness, beliefs and attitudes of PWS?

- What are the teachers' sources of information about stuttering?

- Do teachers' awareness, beliefs, attitudes, and sources of information about stuttering differ by gender (male/female)?

- Do teachers' awareness, beliefs, attitudes, and sources of information about stuttering differ by teachers' experience?

2. Methods:

2.1 Participants

This study was designed as a questionnaire-based study. Initially, the study targeted 500 participants. However, only 382 teachers were included in the study based on the inclusion criteria, which included working in a permanent position and actively teaching classes. Psychologists and administrators were excluded. All the teachers were recruited from 43 public schools and 12 private schools in Upper Egypt (see Table 1).

Table 1

Number of participants according to gender, age, school education level, school sector, teacher experience, and school location.

Gender	Male	226
	Female	156
Age	18-30y	64
	30-45y	249
	> 45y	69
School education level	Elementary	210
	Middle	86
	Secondary	86
School sector	Public	311
	Private	71
Teacher experience	1-10 y	155
	10-20 y	131
	> 20 y	96
School location	New Valley	12
	Beni_Suief	136
	Sohag	45
	Qena	82
	Assiut	107

y= years

2.2 Development of the survey instrument

This study was conducted based on a well-designed questionnaire after reviewing several alternative questionnaires (St. Louis, 2011; St. Louis, Hancock, & Remley, 2010; de Britto Pereira et al., 2008; Guitar, 2006; Van Borsel et al., 1999; Xing Ming et al., 2001). It was judged by seven well-experienced speech language pathologists (SLP) to confirm the relevance and appropriateness of the questionnaire items to the study purpose. a 4-point rating scale they rated the relevance of items. On the scale, the score of 3 or 4 indicated a higher relevance of the questionnaire whereas the rating of, 2, or 1 indicated a lower relevance or no relevance. Based on the following formula the content validity index was calculated

$$\text{content validity index} = \frac{\text{Number of speech language pathologists who rated the item as 3 or 4}}{\text{Total number of speech language pathologists}}$$

Content validity index of one was obtained for all items except item 12 obtained a content validity index of 0.857 indicating a high significance of the items in questionnaire.

The version was verified for readability by administering it to a group of 112 teachers to assess whether any inconsistencies or misunderstandings arose for the respondents. They did not report any problems in understanding the items or in the survey procedure. The reliability of the questionnaire was assessed using the Modal Probability method. The values of the reliability coefficients for the item degrees ranged between (0.50-0.93), as shown in table 2. These values indicate that the items of the scale have acceptable degrees of reliability. The final questionnaire consisted of a total of 25 items in Arabic.

Table 2
Reliability coefficient of the items of the questionnaire

Item	alternatives number	Modal Probability	Reliability coefficient
1	2	0.92	0.84
2	4	0.63	0.51
3	2	0.84	0.68
4	2	0.79	0.58
5	2	0.75	0.50
6	3	0.70	0.55
7	2	0.80	0.60
8	2	0.76	0.52
9	2	0.89	0.78
10	2	0.82	0.64
11	2	0.75	0.50
12	4	0.63	0.51
13	4	0.65	0.53
14	4	0.69	0.58
15	4	0.78	0.70
16	3	0.68	0.52
17	3	0.73	0.60
18	3	0.95	0.93
19	4	0.70	0.60
20	4	0.87	0.82
21	4	0.77	0.69
22	4	0.87	0.82
23	2	0.79	0.58
24	2	0.75	0.50
25	2	0.76	0.52

The questionnaire used a paper-and-pencil format. It started with demographic elements including: age, gender, school education level, school location, school sector, and teacher experience, number of PWS who had taught. The demographic questions were followed by a list of 11 questions designed to obtain information about teachers' awareness about PWS. These 11 items received answers of either "Yes" or "No". Items 12, 14, 17, 21, 22 asked about the teacher's opinion about stuttering and PWS. The responses to these items were a choice between four answer options (agree, neutral, disagree, not applicable). Items 13, 15, 16, 18, 19 20 asked about the teacher's reactions toward PWS. The last three items 23, 24, 25 asked about the source of their information regarding stuttering.

The questionnaire used was relatively simple and easy to administer. It takes only 15 minutes to be completed. The survey was

completed by teachers in public and private schools in five governorates (Beni-Suief, Assiut, Sohag, Qena, New Valley) spanning three school education levels (elementary, middle, and secondary). Hence, the sample of teachers responding to the questionnaire is representative of the general population of teachers in Upper Egypt, and likely representative of the general population of teachers outside Upper Egypt as well.

2.4 Data analysis:

For statistical analysis, SPSS v. 22 was used. The following methods were used to test hypothesis of the study: The modal probability method, Levene's test of equality of variances, Multivariate analysis of variance (MNOVA), independent samples T-test, chi-square, and group statistics.

Results:

Table 3
The percentage of responses of teacher for questions about their awareness of PWS.

Question	responses	Percent%	Mean	SD	Chi^2	Sig.
1Able to understand PWS	Yes	82.3				
	no	17.7	1.2	0.366	541.8	**
2Percent of understanding	25%	12.5				
	50%	26.6				
	75%	43.3	2.71	0.843	260.4	**
	100%	17.6				
3Negative effects of stuttering on PWS	Yes	73.8	1.2	0.409	395.8	**
	no	26.2				
4PWS Less mature than peers	Yes	24		0.439	88.6	**
	no	76	1.74			
5Verbally participating	Yes	62.7		0.467	49.3	**
	no	37.3	1.32			
6Participate verbally in class	Rare	28.8				
	sometime	55.4		0.593	150.1	**
	All time	18.8	1.78			
7Any embarrassment during answering questions	yes	74.8				
	no	25.2	1.19	0.402	408.6	**
8PWS trust himself during reading	yes	24.9	1.73	0.444	81.1	**
	no	75.1				
9Doesn't trust himself	yes	85.7	1.07	0.257	280.6	**

because of stuttering	No	14.3				
10stuttering affected PWS negatively during oral presentation	yes	78.2		0.362	182.5	**
	No	21.8	1.15			
11Anxiety of parents	yes	52.7		0.516	188.2	**
	No	47.3	1.50			

Residual analysis: n. s. = not significant * p < .05, ** p < .01.

Table 3 presents the responses of teachers to questions about their awareness regarding PWS. Most of the teachers expressed an ability to understand PWS (82.3%), and nearly 43.3% of teachers responded that they could understand 75% of the speech of PWS. Most of the teachers (73.8%) believed that stuttering negatively affects children. Most did not believe that PWS seemed less mature academically than their non-stuttering peers did (yes=24%, No 76%).

When queried about whether PWS participate verbally in class (with reply to options of rarely, sometimes, or all of the time), most teachers (62.7%) reported the level of verbal class participation as "sometimes". Most of the teachers (74.8%) noticed that PWS felt embarrassed or anxious when answering questions or interacting with non-stuttering peers and that the self-esteem for PWS was low, as they did not trust themselves because of stuttering (75.1%). Most of the teachers (78.2%) observed that stuttering negatively affected PWS during oral presentations in class. However, relatively few teachers felt that the parents of PWS experienced anxiety (yes=52.7%, no=47.3%).

Table 4
The percentage of responses of teacher for questions about their beliefs about PWS.

Question	responses	Percent%	Mean	SD	Chi^2	Sig.
12stuttering affected the IQ's PWS	Agree	17.9				
	Neutral	15.3		0.837	468.5	**
	Disagree	66.6	2.48			
	Not applicable	0.4				
14PWSs seems shy and calm	Agree	60.3				
	Neutral	16		0811	351.7	**
	Disagree	22.5	1.54			
	Not applicable	1.2				
17PWS is different from other students	Agree	62.5				
	Neutral	8.5		0.859	405.9	**
	Disagree	28.5	1.57			
	Not applicable	0.5				

21stuttering cannot be cured	Agree	5.3	2.81	0.562	673.5	**
	Neutral	9.0				
	Disagree	83.5				
	Not applicable	2.2				
22environment is a vital	Agree	85	1.11	0.425	909.7	**
	Neutral	12.8				
	Disagree	1.5				
	Not applicable	0.7				

Residual analysis: n. s. = not significant * $p < .05$, ** $p < .01$.

Table 4 indicates the responses of teachers to questions about their beliefs about PWS. Most teachers demonstrated that they have correct information about the characteristics of PWS: 66.6% of them disagreed with the statement "stuttering affects the IQ of the PWS"; 60.3% agreed that "most PWS seem shy and calm"; 62.5% agreed that teachers should be aware that PWS are different from other students; 83.5% were confident that stuttering is a problem that can be treated; and 85% agreed that a child's environment is a vital element in increasing or decreasing the stuttering behavior.

Table 5
The percentage of responses of teacher for questions about their attitudes to Stutterers.

Question	Responses	Percent%	Mean	SD	Chi^2	Sig.
13exempt the PWS in speaking	Agree	17.2	2.53	0.808	407.1	**
	Neutral	10.7				
	Disagree	70.6				
	Not applicable	1.5				
15not pay any attention to the PWS's speech	Agree	77.7	1.25	0.613	711.6	**
	Neutral	7.7				
	Disagree	13.9				
	Not applicable	0.7				
16repeat his speech till the fluency	Agree	44.8	1.86	0.906	193.9	**
	Neutral	23.7				
	Disagree	31				
	Not applicable	0.5				
18good treatment increased the fluency	Agree	88.6	1.06	0.293	1017.9	**
	Neutral	3.1				
	Disagree	7.8				
	Not applicable	0.5				
19learn how to accept teasing from others	Agree	67.6	1.44	0.773	482.9	**
	Neutral	10.9				
	Disagree	20.5				
	Not applicable	1.0				
20punishment is not favorable with PWS	Agree	79.9	1.24	0.634	767.7	**
	Neutral	11.5				
	Disagree	7.6				
	Not applicable	1				

Residual analysis: n. s. = not significant * $p < .05$, ** $p < .01$.

Table 5 shows the responses of teachers to questions about their reactions to PWS. They show that the teachers in general had effective ways to deal with stuttering: 70.6% did not believe that teachers should exempt the PWS from speaking in front of other students, 77.7% agreed that teachers should not pay any attention to the PWS's speech, 88.6% believed that positive interaction with the teacher increased fluency in PWS, and 79.9% believed that punishing PWS because of their stuttering increases the problem itself; 67.6% believed that students who stutter should learn how to accept teasing from others; However, there was little agreement about whether PWS should be asked to repeat their speech until they speak fluently (agree, 44.8%; disagree, 30%).

Table 6
The percentage of responses of teacher for questions about sources of information about stuttering.

Question	responses	Percent%	Mean	SD	Chi^2	Sig.
23 magazines/ journals	Yes	52.3		0497	6.3	*
	No	47.7	1.44			
24radio/ TV show	Yes	56.9		0.495	8.8	**
	no	43.1	1.42			
25social media sites	Yes	51.2	1.47	00.50	1.5	n.s.
	no	48.8				

Residual analysis: n. s. = not significant * p < .05, ** p < .01.

Table 6 shows the responses of the teachers to questions about the sources of their information about stuttering. Overall, the teachers did not show any preferred source for obtaining information about stuttering.

To investigate the effect of the teacher experience variable (1-10y، 10-20y، > 20y) on the four dimensions (teachers' awareness, teacher's beliefs, teacher's attitudes, and information sources), the Multivariate Analysis of Variance (MNOVA) test was used using the Spss22 program, and the homogeneity of variance was verified for the three groups in Dependent variables using Levene's Test of Equality of Variances as a condition for using MANOVA and the results are as shown in a table7.

Table7
Levene's Test of Equality of Error Variances

Dependent Variables	F	df1	df2	Sig.
Teachers' awareness	.526	2	379	.591
Teachers' beliefs	.366	2	379	.694
Teachers' attitudes	1.702	2	379	.184
Information sources	1.304	2	379	.273

The results show that the F-values are not statistically significant, which indicates that the assumption of equal variance of the independent groups in the dependent variables was fulfilled. The correlation coefficients between the dependent variables that are the basis for using MANOVA were calculated, and the results are presented in a table8.

Table 8
Matrix of interrelationships between teachers' awareness, beliefs, attitudes, and sources of information about stuttering

Dependent variables	Teachers' awareness	Teachers' beliefs	Teachers' attitudes	Information sources
Teachers' awareness	-			
Teachers' beliefs	.347**	-		
Teachers' attitudes	.211**	.422**	-	
Information sources	.046	.093	.141**	-

**. Correlation is significant at the 0.01 level (2-tailed).

The values of the correlation coefficients among the variables indicates that there is a statistical significance at the level of significance (0.01), except for the correlation coefficient between the sources of information and each of the teachers' awareness and beliefs.

Table 9 presents the effect of teacher's experience (1-10y ، 10-20y ، > 20y) on the four dimensions (teachers' awareness, teacher's beliefs, teacher's attitudes, and information sources) using multivariate tests.

Table 9
The results of the multivariate tests

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
	Pillai's Trace	.018	.839	8.000	754.000	.568	.009
	Wilks' Lambda	.982	.838	8.000	752.000	.569	.009
Experience	Hotelling's Trace	.018	.837	8.000	750.000	.570	.009
	Roy's Largest Root	.014	1.323	4.000	377.000	.261	.014

The results of the multivariate tests are not statistically significant, which indicates that the teacher's experience does not affect any of the dependent variables included in the analysis, and this was asserted by the results of the MANOVA test and the significance of the value of (F) (as shown in table 10). The values of (F) are not statistically significant, which indicates that that there are not statistically significant differences on: (teachers' awareness, teachers' beliefs, teachers' attitudes, and sources of information) of PWS is due to teacher's experience.

Table 10
the effect of teacher experience on teachers' awareness, beliefs, attitudes, and sources of information about stuttering using MANOVA test
Table 11 shows the results of Levene's Test for Equality of Variances; to

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Experience	Teachers' awareness	4.165	2	2.082	.739	.478	.004
	Teachers' beliefs	10.766	2	5.383	1.438	.239	.008
	Teachers' attitudes	4.851	2	2.425	.643	.526	.003
	Information sources	1.511	2	.755	.624	.536	.003
Error	Teachers' awareness	1067.312	379	2.816			
	Teachers' beliefs	1418.731	379	3.743			
	Teachers' attitudes	1430.105	379	3.773			
	Information sources	458.586	379	1.210			
Total	Teachers' awareness	105170.000	382				
	Teachers' beliefs	35924.000	382				
	Teachers' attitudes	34967.000	382				
	Information sources	7613.000	382				

find out whether the degree of teachers' awareness, beliefs, attitudes and sources of information about stuttering differ according to the Gender, the Independent Samples T- Test was used.

Table 11

Differences in mean scores for gender (males- females) in teachers' awareness, beliefs, attitudes, and sources of information about stuttering.

variable	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Teachers' awareness	.050	.823	.572	380	.568	.09995	.17471
Teachers' beliefs	.383	.536	1.431	380	.153	.28812	.20135
Teachers' attitudes	2.363	.125	.192	380	.848	.03880	.20227
Information sources	2.751	.098	2.387	380	.017	.27139	.11369

It is clear from the table 11 that all F-values of Levin's test are not statistically significant in all variables, which indicates the homogeneity of the two groups (males and females), and all T-values are not statistically significant in all variables except for the sources of information, it was significant at the level of significance (0.05), which indicates that there are no statistically significant differences in the three dimensions: teachers' awareness, beliefs and attitudes towards stuttering that are attributed to gender (males, females), while statistically significant differences were found in the dimensions of information sources about stuttering in favor of males, as shown in table 12.

Table 12

Descriptive statistics for the study sample

variable	Gender	N	Mean	Std. Deviation	Std. Error Mean
Teachers' awareness	Male	226	16.5487	1.69701	.11288
	Female	156	16.4487	1.65118	.13220
Teachers' beliefs	Male	226	9.3850	1.99054	.13241
	Female	156	9.6731	1.84972	.14810
Teachers' attitudes	Male	226	9.3850	2.11818	.14090
	Female	156	9.3462	1.65648	.13262
Information sources	Male	226	4.4381	1.11082	.07389
	Female	156	4.1667	1.06458	.08523

4. Discussion:

The impetus for this study was to expand epidemiological research on attitudes and knowledge regarding stuttering among teachers, and their attitudes to PWS in the classroom. Teachers are key figures in the lives of PWS as they are one of the main communication partners for children in the classroom (Gottwald & Hall, 2003). Teachers' behaviors and practices in the classroom are closely related to their attitudes and behaviors (Rimm-Kaufman & Sawyer, 2004). Findings from this study showed that most of the teachers' beliefs and knowledge about stuttering were practical and accurate. The teachers understood PWS and had convictions that stuttering negatively affects children. It may be the case that exposure to stuttering and PWS allows teachers to be more accurate in their view of stuttering.

Exposure to stuttering permits a teacher to directly observe how stuttering affects an individual student. Teachers with greater knowledge of stuttering demonstrated more favorable attitudes toward PWS. This result supports the findings of other researchers who have found a significant relationship between knowledge and attitudes toward stuttering (Abdalla & St. Louis, 2012; Arnold et al., 2015; Flynn & St. Louis, 2011; Hobbs, 2012; Irani & Gabel, 2008; Irani et al., 2012; Li & Arnold, 2015; Pachigar et al., 2011).

The results also reported significant differences in parents' anxiety toward their children' problem. Parents often refused to talk to teachers about their children who stutter, perhaps because they felt embarrassed about their children' problem and preferred to have a speech pathologist's evaluation and management to their children's speech. Furthermore, parents of children who stutter may have little knowledge about the causes of stuttering, which may contribute to misunderstanding about the disorder and a lack of awareness of their son's problem (Al-Khaledi et al., 2009).

One of the most consistent findings was the solidity of teachers' knowledge about the characteristics of PWS; they were sure that the average intelligence of PWS does not differ from that of normal students (Bloodstein & Ratner, 2008). The teachers agreed

that PWS seem shy and calm, and in this sense were different from other students. PWS are often viewed negatively or are misunderstood in school systems (Daniels et al., 2012). Teacher knowledge about stuttering and accurate perceptions of PWS and their characteristics is important, since attitudes and actions of students can be influenced by their teacher's actions and attitudes towards PWS (Marshall et al., 2002).

Our results indicated that teachers believe PWS should learn effective strategies to address teasing and bullying from others. Previous studies have found that PWS report a high incidence of bullying and teasing in schools (Blood & Blood, 2004; Blood et al., 2010; Davis et al., 2002; Yaruss et al., 2004). Other studies have further shown that teasing and bulling is more prevalent for PWS than for their normal peers (Blood & Blood, 2004; Yaruss et al., 2004), with PWS experiencing bullying at a rate four times that of their peers (Blood & Blood, 2004). This suggests that teachers must work to provide a safe learning environment for PWS.

It is important for teachers to be aware, when educating their students with stuttering, that stuttering has a pervasive effect on students' lives—emotionally, academically, and socially (Bennett, 2006; Klompas & Ross, 2004; St. Louis, 2001).

Teachers' personal experience with stuttering or prior contact with PWS tends to enhance their attitudes and attitudes toward it (Flynn & St. Louis, 2011; Klassen, 2002; St. Louis & George, 2008; St. Louis et al., 2015; St. Louis & Rogers, 2011). Regarding the teachers' views and responses of how they would handle stuttering in the classroom, most of the teachers stated that they would behave considerately when conversing with PWS in class. PWS may try to avoid speaking situations or refuse to talk altogether to escape the verbal demands (Klompas & Ross, 2004; St. Louis, 2001). The anxiety level of PWS can increase because of their fear of embarrassment and verbal stress from class presentations and speeches (St. Louis, 2001).

Most teachers in the current study indicated that they would not excuse a child from talking in front of the class (70.6%).

Pachigar et al. (2011) found that teachers would not excuse a child from speaking in front of the class due to the curriculum demand for oral communication and due to teachers' perceptions, that excusing a child from participating may make them more noticeable. While it is important to not to exclude a PWS who wants to participate, teachers may unintentionally place demands on a PWS to take part in discussions before the pupil is ready. Even though the teachers' responses may be innocent, it can still have an impact on the child's reaction toward their own speech (Yaruss & Reardon, 2002).

There was a high consensus among the teachers that paying attention to a stutterer's speech and engaging in positive interaction with PWS during class will increase fluency (88.6%). It appears that teachers with a stutterer currently enrolled in their class - with any degree of stuttering experience - are quick to develop explanations for the aberrant speech patterns they observe, which are often incorrect. Their understanding of the disorder might be based on their daily experience with dealing with PWS, training courses, or information about stuttering and how to deal with PWS. It has been made clear that the environmental context in which a child communicates is important relative to the attitudes of teachers and peers, which can affect his fluency (Yaruss & Reardon, 2002).

The results indicate that there is little agreement among teachers about the efficacy of asking PWS to repeat their speech until the word comes out (agree 44.8%, disagree 31%, neutral 23.7%). This disagreement may be due to teachers' beliefs that PWS would experience helplessness, anxiety, fear, anger, shame, and/or embarrassment if the teacher insisted on asking a student with stuttering to repeat his/her speech until he/she speaks fluently (Bennett, 2006; Klompas & Ross, 2004; St. Louis, 2001).

While most of the teachers demonstrated positive perceptions, attitudes, and beliefs about stuttering, data from this study indicate that teachers do not show any preferred source of information regarding stuttering. Some of the sources from which teachers have drawn knowledge of stuttering include experience

with PWS, reading of books or journals, listening to radio or TV, or exploring social media sites.

The results indicated that there was not a significant difference in teachers' awareness, beliefs, and attitudes for PWS based on teachers' experience. This finding seems unusual as one would expect that teachers with fewer years of teaching experience, would display less awareness, unfavorable beliefs, and shortage in their attitudes toward PWS.

The result may be explained by the education of the teachers doesn't have the knowledge about how to accommodate learner diversity in the classroom. Therefore, many teachers were not equipped with the necessary skills to educate learners with disabilities (Donohue & Bornman, 2014).

The implementation of professional development programs related to stuttering may therefore improve teachers' knowledge about stuttering and subsequently, their beliefs/attitudes. Because of increased knowledge, teachers may feel more confident in their ability to assist a PWS in the classroom.

There was not a significant difference in teachers' awareness, beliefs, and attitudes for PWS based on gender, but Significant differences were found for gender with regard sources of information. Male teachers were more in gaining information about stuttering than females. The result is in consistence with other studies (Dietrich et al., 2001; Schroeder, 2011; St. Louis 2012).

The current study found that teachers generally held positive shift in attitudes of Upper Egypt teachers towards PWS, specifically related to the potential of the PWS and their own classroom management strategies. The findings suggest that Upper Egypt teachers have become more tolerant and accepting of PWS. There is a clear need for increased awareness and educational interventions to increase teachers' knowledge about stuttering and to reduce the stigma attached to stuttering. Increased knowledge about stuttering and how to manage a PWS in the classroom, can

lead to a healthier school environment, more positive attitudes by teachers and subsequently, peers.

5. Recommendations:

- Involving the PWS in academic activities in the classroom, to enhance self-confidence.

- Encouraging PWS to participate in social and recreational activities within the school to help them in social interaction and making friends.

- Providing a safe environment for the PWS without punishment, ridicule, or bullying; to let them express about themselves and their emotions without pressure.

- Organizing training courses for teachers to help them on how to deal well with PWS.

- Holding workshops for teachers and parents to increase their awareness of stuttering and the psychological characteristics of PWS.

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7. References:

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وعي المعلمين، ومعتقداتهم، وتوجهاتهم نحو الطلاب المتلعثمين في صعيد مصر

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المستخلص:

هدف البحث الحالي إلى تقييم وعي المعلمين ومعتقداتهم تجاه التلعثم وتصرفاتهم مع التلاميذ المتلعثمين في صعيد مصر. وشملت عينة البحث ٣٨٢ معلماً من خمس محافظات من صعيد مصر، وتم تصميم استبانة لتقييم وعي المعلمين ومعتقداتهم ومواقفهم تجاه التلاميذ المتلعثمين. وتم تجميع النتائج من خلال استجابات المعلمين على الاستبانة. أشارت النتائج إلى وجود توجه إيجابي عام لدى المعلمين تجاه التلعثم، كما أظهر المعلمون معرفة كافية حول التلعثم، وتمكنوا من التعرف على خصائص التلعثم والاستجابة بشكل مناسب مع الطلاب المتلعثمين. وأظهرت النتائج أن الآباء لم يفضلوا الاقتراب من المعلمين بشأن تلعثم أطفالهم. كما كان فهم المعلمين للتلعثم متنوعاً. ولم تظهر النتائج وجود فروق ذات دلالة إحصائية لمتغيري: خبرة المعلمين أو النوع على وعي المعلمين ومعتقداهم ومواقفهم تجاه المتلعثمين. وتبين هذه النتائج أن هناك توجه إيجابي عام في مواقف المعلمين تجاه التلاميذ المتلعثمين، كما تؤكد على أن هناك حاجة ماسة لزيادة الوعي من خلال التدريبات العملية لزيادة معرفة المعلمين بالتلعثم وتقليل وصمة العار المرتبطة بالتلعثم.

الكلمات المفتاحية: التلعثم، وعي المعلمين، معتقدات المعلمين، توجهات المعلمين، الطلاب المتلعثمين