

Brief communication Σύντομο άρθρο

Early childhood educators' knowledge and attitudes toward young children who stutter

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Attitudes of 74 early childhood educators toward young children who stutter were explored using a Greek translation of Teacher Attitudes Toward Stuttering (TATS) Inventory and the Alabama Stuttering Knowledge Test (ASK). Results indicated a significant positive correlation between educators' attitudes towards stuttering (TATS) and knowledge of stuttering (ASK). Multiple regression analysis showed that age, years of experience and educational level were not significant predictors of attitudes (TATS) toward young children who stutter. Participants' responses appeared to indicate positive attitudes towards young children who stutter. This study highlighted the need for awareness campaigns and education opportunities to ensure fewer negative perceptions for very young children who stutter.

Key words: Stuttering, attitudes, awareness, young children, early childcare educators.

Introduction

Stuttering has been historically considered as a speech problem. It is classified in communication disorders in DSM-5 and is characterized "by disturbances of the normal fluency and motor production of speech."¹ When toddlers begin producing multisyllabic utterances (e.g., "wanna go park," "gimme cookie"), some of them might also begin to stutter.² Research data show that usually recovery oc-

curs within the first 18–24 months of stuttering onset, although it could happen even 4 years later.³ Approximately 70–80% of those 3-year-olds stuttering will eventually disappear without formal intervention.⁴ It has been reported that children who have a family history of recovery from stuttering are more likely to recover without any therapeutic interventions than those whose family members have persisting difficulties with stuttering.⁵ For the remaining 20–30%, however, it might remain through-

out school years and become a chronic problem.⁶ Research data show that children who stutter might experience negative reactions from peers, even as preschoolers and efforts should be made to prevent this problem at child care centers, especially when these children spent many hours in these educational settings each day.⁷ Previous research findings showed that educators' views of stuttering were unfavorable and that they often ascribed negative traits to people who stutter like anxious, shy, nervous, unassertive or introverted.⁸⁻¹⁰ Heite¹¹ reported limitations in educators' knowledge of stuttering and that they usually based their judgments on cultural mythology and their own stress reactions. Interestingly, teachers' empathy can have a crucial impact on the way these children are viewed and treated by their peers.¹² Overall, research has shown that teachers have little knowledge about stuttering which in turn causes more negative perceptions of children who stutter in their classrooms.¹³ To the researchers' knowledge, research regarding early childhood educators' knowledge and attitudes towards children who stutter in Greece is very limited. The purpose of the current study was to explore early childhood educators' knowledge about stuttering and attitudes towards young children who stutter and explore their relationships with teaching experience, age and educational level. Probing early childhood educators' perceptions about stuttering could provide us with insight as regards awareness and misconceptions about children who stutter.

Method

This study explored knowledge and attitudes about stuttering in early childhood educators in Greece, using a Greek translation of the Alabama Stuttering Knowledge Test (ASK)¹⁴ and the Teacher Attitudes toward Stuttering inventory (TATS).¹⁵ The two scales were translated from English into Greek by the researchers and back-translated into English by two fluent bilingual translators following the procedure specified in Ozdemir, St. Louis & Topbas.⁹ The two versions of the instrument were then compared. Discrepancies between the original and the back-translated versions were discussed by the researchers and revised to better approximate meanings from the original scales.

Participants

The sample consisted of 73 early childhood educators working in central Makedonia, Greece. Participation in the study was completely voluntary. All the educators (73) who completed questionnaires were female with a mean age of 42 years ($SD=9.3$) with a range of 20–61 years and all taught children aged between 2 and 5 years. The years of their experience ranged from 0 to 33 years ($mean=14.88$, $SD=7.90$). As far as participants' level of education is concerned, 22.2% (17) of them had attended post-secondary education institutions which train assistant childcare workers, 38.9 % (28) were Technological Educational Institutions graduates, 37.5 % (27) had graduated from universities and 1.4% (1) held a master's degree. Participants' graduation year ranged from 1985 to 2017. 38% (27) were kindergarten teachers, 40.8% (29) childcare workers, 21.2% (17) worked as childcare assistants. It should be noted here that in Greece till recently those working with younger children in infant/child centers were named early childhood educators/childcare workers and they graduated from Technological Educational Institutions, while those working with older children aged 4–6 years in kindergarten schools are named teachers (kindergarten) and they are university graduates, for example Department of Early Childhood Education' or as "Department of Nursery Education".¹⁶ All participants worked in child centers operated by municipalities. An information sheet giving details of the study was provided to each educator. All participants gave written informed consent to be included in the study. None of the participants had any formal training on stuttering.

Measures

Three instruments were used to gather data. The demographic questionnaire consisted of questions to indicate highest degree obtained, age, number of years of teaching experience and gender. The Alabama Stuttering Knowledge Test (ASK)¹⁴ was used to assess early childhood educator's knowledge about stuttering. The ASK consists of 26 true/false questions that measure an individual's knowledge of stuttering. The ASK assesses knowledge of stuttering in the areas of etiologies, statistics, characteristics, and interventions. For example, question 1 asked –

More girls than boys stutter: true or false? Correct responses received 1 point and incorrect responses received 0 points. The total score was obtained from the sum of all correct responses with a possible maximum score of 26 or a minimum score of 0, with the higher score indicative of a more complete knowledge of stuttering. The Teacher Attitudes Toward Stuttering scale (TATS) was adapted from the original survey used by Crowe and Walton.¹⁵ The TATS Inventory was composed of 36 attitude statements that were originally structured to assess teacher attitudes towards stuttering and their behaviors for handling situations in the classroom when students stutter. The survey used a 5-point Likert scale where 5 indicated strongly agree, 4 somewhat agree, 3 undecided, 2 somewhat disagree and 1 strongly disagree. The maximum score possible on the TATS Inventory was 144 with a minimum possible score of zero, the higher scores indicating more desirable teacher attitudes toward stuttering. In this study the internal consistency of the total Alabama Stuttering Knowledge Test (ASK) scale measured by Cronbach's alpha coefficient was 0.76 and Teacher Attitudes Toward Stuttering scale (TATS) was 0.79.

Results

Descriptive statistics

Scores on the total 26-item ASK scale ranged from 7 to 21 points, with higher scores reflecting a more complete knowledge of stuttering. The mean score was 15.13 (SD=2.4), indicating that participants had a good knowledge of stuttering as measured by this scale, as the mean score was above the average (compared to the original scale's scores mean=16; SD=2.6). Scores on the total 36-item TATS scale ranged from 78 to 162 points, with higher scores in-

dicating more desirable attitudes toward stuttering. The mean score was 102.11 (SD=12.88), indicating that participants hold positive attitudes as the mean score was above the average (compared to the original scale's scores).

Correlation analysis

Table 1 provides the intercorrelation matrix between the measures of the study. As shown in the table, Alabama Stuttering Knowledge Test (ASK) was associated positively with Teacher Attitudes toward Stuttering (TATS) scale indicating that early childhood educators who have more tolerant attitudes toward stuttering tend to have at least a basic knowledge in the areas of its etiologies, statistics, characteristics, and interventions.

Multiple regression analysis

Multiple linear regression analysis was used to examine the association between predictor variables and the TATS scale. The assumptions of regression analysis were tested and were not violated.¹⁷ TATS scale served as the criterion variable and level of education, age and years of experience as simultaneous predictors. Visual inspection of data plots showed that variables had normal distributions. The assumptions of no multicollinearity and independence of errors were checked using the SPSS available procedures (Collinearity diagnostics and Durbin-Watson test). Each of the VIFs was near one, suggesting a lack of multicollinearity. The value for the Durbin-Watson test was 1.873 suggesting that the assumption of independence has been met.¹⁷ The analysis showed that age ($b=-0.006$, $t=-0.027$, $p>0.05$), years of experience ($b=-0.173$, $t=-1.77$, $p>0.05$) and level of education ($b=0.794$, $t=-0.531$, $p>0.05$) were not significant predictors of attitudes toward young children who stutter.

Table 1. Correlations between study variables.

	1	2	3	4	5
1. ASK		0.213*	0.050	0.055	0.016
2. TATS			0.080	-0.030	0.050
3. Level of education				0.030	0.420**
4. Years of experience					0.711**
5. Age					

Discussion

This study investigated early childhood educator's knowledge and perceptions of stuttering. The ASK test and TATS inventory were used to assess educator's knowledge and measure their perceptions and knowledge regarding children who stutter. Results indicate that a significant positive correlation existed between the TATS Inventory and the ASK Test scores of the early childhood educators, meaning that educators with a greater knowledge of stuttering demonstrated more desirable attitudes toward stuttering. These results are consistent with research data showing a significant relationship between knowledge of and attitudes toward stuttering.¹⁸ This study found that participants demonstrated at least a basic knowledge in the area of stuttering impacting their perceptions of children who stutter in their classrooms.

These positive attitudes toward pre-school children are particularly important in view of the fact

that the majority of cases of stuttering begin during the preschool years, usually with an onset before 4 years of age.¹⁹ Due to the study being conducted with a limited number of participants, the ability to generalize the results among a larger population is limited. Further, participants who respond to questionnaires are sometimes more positively inclined.^{20,21} Hence, educators who were more positive towards stuttering were more likely to participate in the study than educators who were not. Educators may have thought also that negative attitudes towards children who stutter may be viewed as unacceptable for their profession.¹⁴

Overall, participants' responses appeared to indicate positive attitudes towards young children who stutter in antithesis with other research data.²² Despite its limitations, the current study provides basic data regarding early childhood educators' knowledge and attitudes towards young children who stutter in Greece.

Γνώσεις και στάσεις παιδαγωγών πρώιμης παιδικής ηλικίας σχετικά με παιδιά με τραυλισμό

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Η παρούσα μελέτη διερεύνησε τις γνώσεις και τις στάσεις 74 παιδαγωγών πρώιμης παιδικής ηλικίας σχετικά με τον τραυλισμό χρησιμοποιώντας την ελληνική εκδοχή της κλίμακας Teacher Attitudes toward Stuttering (TATS) όπως και της κλίμακας Alabama Stuttering Knowledge Test (ASK). Οι συμμετέχοντες εργάζονταν σε παιδικούς σταθμούς στην κεντρική Μακεδονία. Τα αποτελέσματα έδειξαν τη σημαντική θετική συσχέτιση μεταξύ της στάσης των συμμετεχόντων απέναντι στον τραυλισμό (TATS) και των γνώσεων για τον τραυλισμό (ASK). Τονίζεται η ανάγκη της ενημέρωσης των παιδαγωγών καθώς φαίνεται να επηρεάζεται θετικά από αυτές τις γνώσεις η στάση τους απέναντι στον τραυλισμό.

Λέξεις ευρετηρίου: Τραυλισμός, παιδαγωγοί πρώιμης παιδικής ηλικίας, στάσεις, ευαισθητοποίηση παιδαγωγών.

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