Does a Graduate Course in Fluency Disorders Make a Difference?

Evelyn R. Klein, Ph.D., CCC-SLP, BRS-CL & Barbara J. Amster, Ph.D., CCC-SLP, BRS-FD

La Salle University, Philadelphia, PA

Abstract

A study by Yaruss and Quesal (2002), based on 134 of 239 ASHA accredited graduate programs, indicated that almost 25% of graduate programs allow students to graduate without coursework in fluency disorders and approximately 66% of programs in the US graduate students without clinical experience with people who stutter (PWS). Many clinicians, not surprisingly, report discomfort in treating PWS. This cross-sectional study explores changes in perceptions about PWS from entry level COMDIS undergraduate through completion of a graduate course in fluency and stuttering.

Background

"Working with people who stutter can be challenging for many speech-language pathologists. In fact, numerous surveys have demonstrated that many SLPs rank stuttering at the bottom when asked which disorders they prefer to treat" (Yaruss & Quesal, 2001, p.4). This quote is not surprising considering that many graduate programs no longer require the completion of a course in fluency disorders, nor do they require clinical practicum experience with PWS (Yaruss & Quesal, 2002). The present study was designed to look at changes in students' beliefs about the cause of stuttering before and after completing a graduate course in fluency and stuttering.

Purpose of Study

The purpose of the study was to compare students' beliefs about the etiology of stuttering from different learning levels. One's theoretical viewpoint of stuttering will influence treatment approaches (Büchel, & Sommer, 2004). In addition, the survey asked the students whether they personally knew a PWS and whether they ever treated a PWS and if so, how long.

Methods

Participants

All were females attending a private urban university majoring in Speech-Language Pathology

Table 1. Participant Demographics (n=98)

	Age Mean (SD)	# Years Known PWS	# PWS Treated
Undergrad Students N=39	**18.90 (1.23)**	**3.00 (4.86)**	**0.00 (0.00)**
Graduate Students N=59	**26.95*** (6.06)**	**5.25 (8.85)**	**2.17*** (2.73)**
Cohen's d	**2.05+++**	**.32**	**1.12+++**

*** p<.001 = Sig. difference between undergraduate & graduate students

+++ Large effect size

Procedures

A brief survey was designed to gather information about the students' personal views of stuttering. Specifically, what they believe causes stuttering and whether or not they have ever had experience treating a PWS. The survey was administered to 39 freshman undergraduate students who were enrolled in an introductory course in communication disorders and 59 graduate students completing a graduate course in fluency and stuttering. The graduate course was taught by a full-time faculty member who holds both the CCC and specialty recognition in fluency disorders. The course content is approximately 50% theoretical and 50% clinical application.

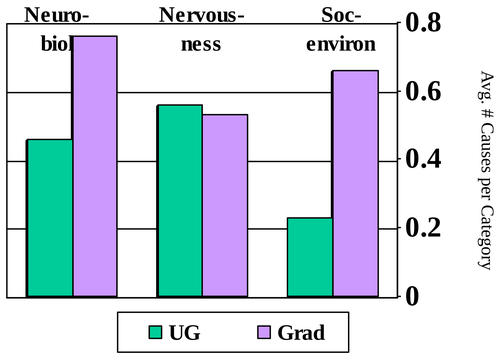
Results

Results of this survey are from a CAA accredited graduate program requiring successful completion of a course in fluency and stuttering for graduation. T-test results revealed significantly more biological and social-environmental causes of stuttering listed by graduate students compared to undergraduate students ($t(96) = 4.94$, $p < .001$). There was a large effect size indicated by Cohen's $d = 1.04$.

	# Causes listed for Stuttering *M (SD)*	Neuro-Biological *M (SD)*	Nervousness *M (SD)*	Social-Environ. *M (SD)*
Undergrad Students N=39	1.23 (.71)	.46 (.51)	.56 (.50)	.23 (.43)
Graduate Students N=59	2.07 (.89)	.76 (.47)	.53 (.50)	.66 (.51)
Significance	p<.001	p<.05	NS	p<.001
Cohen's d	1.04+++	.61++	.06	.91+++

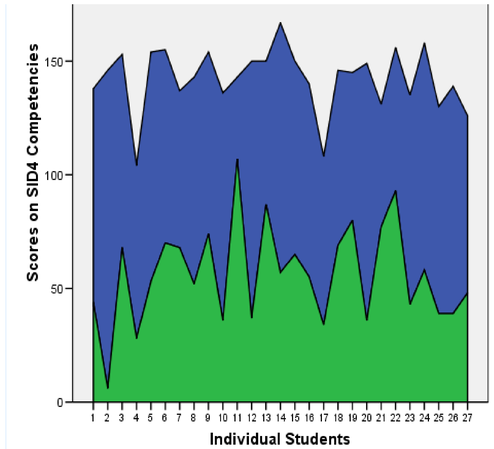
+++ = Large effect size; ++ = Moderate effect size

Figure 1. Comparison of Students' Attribution of Etiology of Stuttering by Education Level



For 27 students in one graduate course at La Salle University, the **green area** indicates students' perceived knowledge base about fluency and stuttering prior to the graduate course based on ASHA competencies. The **blue area** reveals additional learning noted by the end of the course.

Figure 2. Growth of Knowledge by Students: Pre & Post Graduate Course in Stuttering & Fluency



Conclusion

Qualitative information from undergraduates indicated that they believed stuttering is mostly due to psychological problems stemming from a lack of confidence and nervousness. Graduate students demonstrated increased knowledge about fluency disorders after completing the graduate course. Although the two groups did not significantly differ in the number of PWS they knew, graduate students attributed significantly more neuro-biological, genetic and social-environmental causes of stuttering.

Students who have completed graduate level coursework in fluency and stuttering may be better prepared to treat PWS because they view stuttering from a multi-factorial perspective.

Büchel, C. & Sommer, M. (2004). What causes stuttering? *PLoS Biology, 2*(2), 0159-0163. Retrieved December 21, 2004 from http://bioloby.plosjournals.org

Yaruss, J.S. & Quesal, R.W. (2001). The many faces of stuttering: Identifying appropriate treatment goals. *The ASHA Leader, 14*, 4-5.

Yaruss, J.S., & Quesal, R.W. (2002). Academic and clinical education in fluency disorders: An update. *Journal of Fluency Disorders, 27*, 43-63.