Stuttering severity and educational attainment

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A B S T R A C T

Purpose: This study investigated the relationship between self-reported stuttering severity ratings and educational attainment.
Method: Participants were 147 adults seeking treatment for stuttering. At pretreatment assessment, each participant reported the highest educational level they had attained and rated their typical and worst stuttering severity on a 9-point scale for a range of speaking situations. These included: (1) talking with a family member, (2) talking with a familiar person, not a family member, (3) talking in a group of people, (4) talking with a stranger, (5) talking with an authority figure such as a work manager or teacher, (6) talking on the telephone, (7) ordering food or drink, and (8) giving their name and address.
Results: There was a significant negative relationship between highest educational achievement and mean self-reported stuttering severity rating for the eight situations.
Conclusions: Future research is needed to investigate how this result should be addressed in educational institutions.

Educational objectives: The reader will be able to: (1) describe the negative effects of stuttering through childhood to adulthood; (2) identify some of the negative consequences associated with stuttering on peer and teacher relationships, and academic performance at school; and (3) summarise the relationship between stuttering severity and educational attainment.

1. Introduction

Verbal communication is a fundamental part of everyday life. It influences the day-to-day interactions with others, around which all social, educational and occupational networks are established and maintained. Stuttering involves disruptions to verbal behavior and hence interferes with the process of normal communication. This can affect the development of relationships, the way an individual functions and quality of life for the short and the long-term (Craig, Blumgart, & Tran, 2009; Craig & Calver, 1991; Klein & Hood, 2004; Klompas & Ross, 2004). In adults, stuttering is often associated with social maladjustment, under-achievement and qualitative and quantitative impairment of verbal communication (Bloodstein & Bernstein Ratner, 2008; Craig & Calver, 1991; Crichton-Smith, 2002; Hayhow, Cray, & Enderby, 2002). Around 50% of adults who stutter qualify for a diagnosis of social phobia (Iverach et al., 2009; Kraaimaat, Vanryckeghem, & Van Dam-Baggen, 2002; Menzies et al., 2008; Stein, Baird, & Walker, 1996). It is known that social phobia in adults is caused, at least in part, by negative social experiences during the school age years. In this report, we review how these early negative experiences may affect the educational attainment of people who stutter.

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1.1. The negative effects of stuttering during the school years

Educational institutions, from preschool to university, place a major emphasis on verbal communication skills. Such skills form an integral part of most classroom activities. As well as the development of social skills, there are requirements to read aloud, to discuss activities with peers, to ask and answer questions from authority figures and to speak in front of a group. These activities place excessive demands on those who have a stuttering problem. For example, normal speech rate in adults is around 250 syllables per minute, but stuttering can significantly reduce this verbal information transfer rate, sometimes to below 50 syllables per minute. In severe cases, the disruptions of stuttering can last up to 30 s and render the speaker functionally mute. This, coupled with the frequently associated extraneous body movements, the unpredictable nature of the disorder, and the fear of negative evaluation by peers can make apparently routine educational activities challenging and fraught with anxiety.

Stuttering is known to evoke negative peer reactions and to disturb peer interactions as early as the preschool years (Ezrati-Vinacour, Platzky, & Yairi, 2001; Langevin, Packman, & Onslow, 2009). For example, Langevin et al. provide video evidence of preschool peers reacting to stuttering with confusion, and interrupting, ignoring and walking away from stuttering children. Stuttering children were also observed to have difficulty leading peers in play, participating in pretend play, resolving conflicts, participating in problem solving discussions, and providing explanations. There is ample documentation of the distressing effects of early stuttering on affected children (Bernstein-Ratner, 1997; Onslow, Attanasio, & Harrison, 2003; Yairi, 1983). At the end of the preschool years, there is already evidence that these early conditioning experiences promote negative attitudes to speech and communication (Vanryckeghem, Brutten, & Hernandez, 2005).

Such early negative conditioning experiences extend through the school years. Negative attitudes to speech and communication are measurable in 6 and 7 year olds (De Nil & Brutten, 1991; Vanryckeghem & Brutten, 1992). For stuttering children, they worsen progressively during the school years, whereas attitudes to communication in non-stuttering children become healthier (De Nil & Brutten, 1991). Replicated findings show that primary school children who stutter are more susceptible to teasing and bullying than others (Langevin, 2009; Langevin, Bortnick, Hammer, & Wiebe, 1998; Langevin & Hagler, 2004), are perceived negatively by non-stuttering peers (Langevin et al., 2009), and are rejected more often and have more difficulty establishing peer relationships than those who do not stutter (Davis, Howell, & Cooke, 2002). In addition, a recent study by Eggers, De Nil, and Van den Bergh (2010) shows that children who stutter have more sensitive temperaments than those who do not stutter. Young stuttering children are more likely to show higher levels of frustration and anger while being less able to maintain attention or control emotions and behavior. Such temperaments have been shown to influence the development of anxiety and other disorders.

During the final years of school, these difficult experiences are exacerbated by the physical, social and emotional changes of adolescence along with the pressure to conform to group norms and the need for peer acceptance (Heaven, 2001; Spear, 2000). Adolescents who stutter have been shown to have significantly greater fear of speaking in group discussions and interpersonal conversations––a higher incidence of heightened communication apprehension––than their non-stuttering counterparts (Blood, Blood, Tellis, & Gabel, 2001). They also perceive their communication competence to be much lower when talking to strangers. These deficits have in turn been correlated with negative attitudes to school and overall poorer academic performance (Blood et al., 2001). Not surprisingly, a significant positive relationship has been found between stuttering severity, communication apprehension, and self-perceived communication competence scores (Blood et al., 2001) although this finding was not subsequently confirmed in a later study by the same group (Blood, Blood, Tellis, & Gabel, 2003).

Virtually every adult who stutters confirms experiencing the disabling effects of the condition during their school years (Crichton-Smith, 2002; Hayhow et al., 2002; Hearne, Packman, Onslow, & Quine, 2008; Hugh-Jones & Smith, 1999; Klompas & Ross, 2004). The majority report that stuttering affected their relationships with teachers and peers, their self-confidence and their academic performance (Hayhow et al., 2002; Klompas & Ross, 2004; Silverman & Zimmer, 1982). Many feel that stuttering did not allow them to reach their full academic potential, limiting their educational achievements (Hugh-Jones & Smith, 1999). Stuttering resulted in excessive anxiety and avoidant behavior, and in extreme cases individuals have reported leaving school prematurely due to difficulties associated with performing routine speaking activities (Corcoran & Stewart, 1998; Crichton-Smith, 2002). At the very least, many report difficulties with concentration and learning as a result of expending lots of energy towards the thought of stuttering or controlling it (Daniels, 2007). As many as 83% confirm being teased or bullied at school (Hugh-Jones & Smith, 1999) beginning a destructive path of increased anxiety, low self-esteem, difficulties with schoolwork and reduced educational enjoyment and fulfillment.

According to Van Riper (1982), many people who stutter may strive for lower levels of achievement than their normally speaking colleagues due to low self-esteem and fear of failure. Certainly, Williams, Melrose, & Woods (1969) and Guitar (1998) reported that children who stutter, in general, perform slightly below average in school. If effective communication is an important skill for academic progress and success, then one would expect those who stutter to have reduced academic success.

1.2. The present study

In short, those who stutter are more likely to be teased and bullied, to be socially isolated, have lower self-confidence, to achieve lower academic grades, and generally to perceive their school years more negatively than their non-stuttering peers. Such negative experiences are likely to influence whether, and for how long, older children and adults remain in the