

## EMPIRICAL MANUSCRIPT

# Friendship and Emotion Control in Pre-Adolescents With or Without Hearing Loss

Carolien Rieffe<sup>\*1,2</sup>, Evelien Broekhof<sup>1,3</sup>, Adva Eichengreen<sup>1</sup>,  
Maartje Kouwenberg<sup>1,4</sup>, Guida Veiga<sup>5,6</sup>, Brenda M.S. da Silva<sup>1,5</sup>, Anneke van  
der Laan<sup>1</sup>, and Johan H.M. Frijns<sup>1</sup>

<sup>1</sup>Leiden University, <sup>2</sup>Institute of Education, UCL, <sup>3</sup>Dutch Foundation for the Deaf and Hard of Hearing Child, <sup>4</sup>Royal Dutch Auris Group, <sup>5</sup>Departamento de Desporto e Saúde, Escola de Ciências e Tecnologia, Universidade de Évora, and <sup>6</sup>Research Center in Sports Sciences, Health Sciences and Human Development (CIDESD)

\*Correspondence should be sent to Carolien Rieffe, PO Box 9555, 2300 RB Leiden, The Netherlands (e-mail: crieffe@fsw.leidenuniv.nl)

## Abstract

Emotional functioning plays a crucial role in the social development of children and adolescents. We examined the extent to which emotion control was related to the quality of friendships in pre-adolescents with and without hearing loss. We tested 350 pre-adolescents (75 deaf/hard of hearing in mainstream education (DHHm), 48 deaf/hard of hearing in special education (DHHs), and 227 hearing) through self-report. Outcomes confirmed a positive association between emotion control and positive friendships for all groups, with one notable exception: more approach strategies for emotion regulation were associated with more negative friendship features in the DHHs group. In addition, the DHHm group demonstrated high levels of emotion control, while their levels of positive friendship features were still lower compared to the hearing group.

Forming and maintaining friendships are crucial developmental tasks in early adolescence. Positive friendships confer strong protective factors for mental health. Having stable and reciprocal friendships was found to predict higher self-esteem over a 12-year period (Bagwell, Newcomb, & Bukowski, 1998), and related to lower incidence of internalizing and externalizing problems (Bagwell et al., 1998; Blachman and Hinshaw, 2002; Strauss, Forehand, Smith, & Frame, 1986). Friendships in childhood are characterized by sharing pleasurable leisure activities with peers (Aboud and Mendelson, 1996), but friendships in adolescence gain more intimacy and depth. Starting around the teenage years, friends increasingly engage in emotional self-disclosure and provide emotional and social support to one another (Hartup, 1993; Rose and Asher, 1999). These more sophisticated activities require higher levels of emotion control and social attunement. In other words, the capacity to appreciate and regulate emotions becomes increasingly important in these relationships (Kim and Cicchetti, 2010).

Friendship does not come easily to all adolescents, and staying attuned to peers is more challenging for adolescents who face communication challenges such as hearing loss or deafness. Most studies on adolescents who are deaf or hard of hearing (DHH) emphasize that DHH children and adolescents have fewer close friendships than their hearing peers (Kluwin, Stinson, & Colarossi, 2002; Nunes, Pretzlik, & Olsson, 2001; PISO, Knoors, & Vervloed, 2009; van Gent, Goedhart, Knoors, Westenberg, & Treffers, 2012), and that these friendships are of lower quality (PISO et al., 2009). DHH adolescents obviously face practical communication difficulties on a daily basis, but other factors key to maintaining friendships may pose additional barriers to friendship for DHH adolescents. For example, emotion control is a key factor in the development of intimate, high-quality friendships (von Salisch, Lüpschen, & Kanevski, 2013), but it is known to be impaired in DHH children and adolescents, as studies have indicated they show more disruptive and aggressive behaviors than hearing peers (Theunissen

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