Personality Characteristics Versus Medical and Dental Experiences of Dentally Anxious Children

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There is some conflicting evidence in the literature regarding whether dental phobia is a circumscribed fear or an instance of general fearfulness. In an attempt to tease out the effect of general fearfulness from that of aversive dental experiences, mothers of a group of 12 year-old children of both sexes were interviewed regarding their child's temperament and early dental and medical experiences. The results indicated that previous aversive dental experiences were more closely related to dental anxiety than was general fearfulness. Dentally anxious boys appeared to have been influenced by external factors, while the dentally anxious girls' influences appeared to be internal ones. Finally, early behavioral signs of distress in the operatory were predictive of later dental anxiety.

KEY WORDS: dental anxiety; children; sex differences; distress.

INTRODUCTION

In a series of studies regarding the dental experience and behavior of a group of children of both sexes, it was found that the experience of invasive treatment over a period of 3 years, when these children were between 9 and 12 years of age, did not relate to their self-report of dental anxiety, if they had attended regularly for dental check-up and treatment. However, degree of fearfulness as measured by the Fear Survey Schedule for Children (Revised) accounted for a substantial proportion of the variance in dental anxi-

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ety (Liddell and Murray, 1989; Murray et al., 1989). Similar findings were reported by Brown et al. (1986) when they assessed the dental experience of a group of Australian children aged between 7 and 11 years. As a result of their investigation, they concluded that dental anxiety may reflect a more general class of anxiety, rather than learned from aversive dental experiences. In a recent and comprehensive review of studies of children's fearful behavior in dental settings, Winer (1982) concluded that, although there was conflicting data, there was, nevertheless, some support for the hypothesis that dental anxiety is not specific.

The same confusion is evident in the literature reporting investigations of adults. For instance, Lautch (1971), comparing dentally phobic and control subjects on the Eysenck Personality Inventory, found the phobics to have given responses typical of anxiety neurotics. On the other hand, Öst (1987) found dental phobics to score least on the Fear Survey Schedule-III compared with agoraphobics, claustrophobics, and animal and blood phobics. Furthermore, 68% of the dental phobics in Öst's study ascribed their phobias to conditioning experiences. However uncorroborated evidence given by the phobics themselves can only be tentative.

In Brown and co-workers' (1986) study, the children were directly examined for total number of primary diseased, missing, and filled teeth (dmft) and total number of permanent diseased, missing, and filled teeth (DMFT) as a measure of experience. Murray et al. (1989), on the other hand, obtained their evidence by examination of dental records to determine the pattern of attendance and type of procedure each child was submitted to during the 3 year of their study. From both these studies, it was implied that exposure may have acted prophylactically. In the last-mentioned study, it was also found that dentally anxious children rated medical fears, fears of the unknown, and fears of injury (and small animals) higher than nondentally anxious children. It was suggested that such fears and/or earlier related experiences may have predisposed these children to finding dental situations more aversive than was the case for the nondentally anxious children.

In an attempt to tease out the effect of general fearfulness from that of aversive dental or related experiences on dental anxiety, it was decided to go beyond the information previously obtained from a group of children and their dentists in the studies carried out by Liddell and Murray (1989) and Murray (et al. 1989) for evidence of critical experiences and/or relevant temperamental factors.

**METHOD**

Information regarding prior medical and dental experiences along with a temperamental description of each child was sought from the parents