Temporomandibular Pain and Dysfunction Syndrome: The Relationship of Clinical and Psychological Data to Outcome

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A prospective study of 60 patients with the temporomandibular pain and dysfunction syndrome (TMPDS) was done using the General Health Questionnaire, the Crown-Crisp Experiential Index, and the Parental Bonding Instrument. Three months after an initial visit 59 patients were reassessed: 18 patients were completely better or improved a lot, 27 were improved a little, and 14 were the same or worse. Patients' outcomes were not related to the severity or duration of symptoms at the initial presentation. Thirty-five percent of the patients had not received any therapy in the 3-month interval. The outcomes of these patients were not different from the outcomes of patients who had received treatment. A significant relationship was found between initial psychological test scores and outcome (multivariate F = 3.80, P < 0.05). This relationship was curvilinear: the group with the worst outcomes scored highest, that with the best outcomes scored in the middle, and that with intermediate outcomes scored lowest. These results imply that mild psychological distress may facilitate a successful outcome, whereas either excessive psychological disturbance or minimal psychological complaint is associated with poor results.

KEY WORDS: temporomandibular pain and dysfunction syndrome; prospective design; curvilinear relationship; General Health Questionnaire (GHQ); Crown-Crisp Experiential Index (CCEI).

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INTRODUCTION

The results of treatment of patients with temporomandibular pain and dysfunction syndrome (TMPDS), often also called myofascial pain dysfunction syndrome (MPDS), are generally good. Most studies report rates of successful treatment of between 60 and 95% (Ågerberg and Carlsson, 1974; Brooke et al., 1977; Millstein-Prentky and Olson, 1979; Pomp, 1974; Rothwell, 1973; Shipman et al., 1974; Small, 1974). High success rates seem almost independent of the treatment used.

Studies using psychological tests have shown that patients with satisfactory outcomes represent a population which is different from patients with unsatisfactory outcomes (Marbach and Dworkin, 1975; Schwartz et al., 1979). However, these studies are not sufficient to say that TMPDS patients with more severe psychological disorders respond worse to treatment because psychological disturbance may occur secondary to a painful physical disorder (Woodforde and Merskey, 1972). Furthermore, psychologically “abnormal” patients do not regularly respond worse than psychologically “normal” patients (Heloe and Heiberg, 1980b; Small, 1974). Thus the predictive value of psychological tests is unsettled, and the hope that TMPDS would resemble other psychophysiological disorders, or the low back pain syndrome, has not been confirmed. This result may be due, at least in part, to the absence of psychological illness in patients with TMPDS (Salter et al., 1983).

The purpose of this study was to investigate the relationship among clinical data, psychological state, and outcome and to evaluate the assumption that psychological tests given prior to treatment might be used to predict the results of treatment. It was anticipated that patients responding unsatisfactorily would show initial test scores indicative of psychological illness.

The General Health Questionnaire (GHQ) (Goldberg and Hillier, 1979) and the Crown-Crisp Experiential Index (CCEI) (Crown and Crisp, 1966) were used. The former was used in the 28-question version; the latter has 48 questions. The group answers to these 76 questions can give a psychological profile particularly relevant to present anxiety, depression, and a tendency to develop bodily symptoms. The use of these tests in differentiating normal and abnormal populations is well established (Crown and Crisp, 1970; Goldberg et al., 1976; Mavissakalian and Michelson, 1981). A further test employed here, the Parental Bonding Instrument (PBI) (Parker et al., 1979), measures subjects’ perceptions of their early childhood experiences. This test, too, has been shown to differentiate consistently, psychologically ill and psychologically normal groups (Parker, 1981a,b), and might be expected to separate those whose emphasis on their pain was related to prior psychological disturbance compared with those whose emotional disturbance was principally a secondary consequence of physical illness.