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Shorter communication

A treatment trial of an information package to help patients accept new dentures

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Abstract

Intolerance of dentures can be very distressing and difficult to treat. Therefore, 44 patients, having had partial or total dental clearance, completed the Brief Symptom (Psychiatric) Inventory, the Hospital Anxiety and Depression Scale and the Satisfaction with Life Scale. Allocated alternately, each patient had treatment as usual or watched a video containing information, recapitulated in a leaflet, based on the Self Regulatory Model of health beliefs explaining the experiences of wearing dentures and how to tolerate them. They were then fitted with dentures. Two and six weeks later, although both groups expressed favourable expectations of their dentures, the control group deteriorated continually on all measures, correlated with a decline in self-reported dental functioning. The video group improved on all measures except Satisfaction with Life. Therefore, our study is unique in showing that appropriate management of patients can arrest (1) clinically significant distress which can be occasioned by the replacement of teeth by dentures and (2) the development of complaints which may be seen as spurious. Experimental procedures are suggested to determine the influences which have brought this about in our study.

Keywords: Dentures; Psychosocial; Denture tolerance; Personality; Psychiatric

Introduction

Having to lose natural teeth and accept false replacements is very distressing as suggested in studies with non-validated measures (Fiske, Davis, Frances, & Gelbier, 1998; Kelly et al., 2000). Furthermore, around 50 per cent of those who wear dentures are not satisfied with them because of problems with appearance, speech, eating, drinking and other activities (Kelly et al., 2000). However, the correlations between the physical characteristics of dentures and the wearers' satisfaction are low or non-significant (Wolff, Gadre, Begleiter, Moskona, & Cardash, 2003). Many people have unrealistic expectations about dentures which are difficult to meet (Davis, Albino, Tedesco, Portenoy, & Ortman, 1986). Therefore, prosthodontists can have great difficulty in adjusting dentures to satisfy wearers. Several solutions, therefore, have been sought.

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Research has suggested that permanent dental implants increase the psychological well-being of wearers. However, these claims have not been well founded (Lindsay, Millar, & Jennings, 2000) because of methodological flaws such as the use of several measures of distress resulting in spuriously significant results and type I statistical error. Second, some people complain so much that they are referred for psychiatric help (Moltzer, van der Meulen, & Verheij, 1996) but the outcome of this has not been subjected to research. Third, authors have sought to identify aspects of personality which could characterise dissatisfied denture wearers. The assumptions of this research have not been adequately described (Lindsay et al., 2000) but presumably authors have sought to identify measures of personality which are sufficiently unchanging to explain the persistence of complaints. However, studies have failed to show consistently that dissatisfied denture wearers differ in psychological measures from people who do not complain (Lindsay et al., 2000).

Therefore, previous research has failed to point to remedies for the distress of dissatisfied denture wearers.

Theories about the beliefs which people entertain about ill-health and corresponding remedies may suggest ways of helping edentulous people accept dentures for the first time. The most recent and influential theory is the Self-Regulatory Model (SRM). This is a formal description of common sense models of illness (Leventhal, Brisette, & Leventhal, 2003; Scheier & Carver, 2003) and postulates that, when people experience symptoms, they form hypotheses about corresponding diagnosis, what the cause could be, how long the problem could last, what the outcome could be and what could be done to control or ease the problem. These hypotheses could be influenced by information from sources such as clinicians consulted by them, other people with similar experiences and broadcast media including the Internet. The SRM is a dynamic formulation in that people will change their hypotheses to accommodate new information and experiences. The theory has been used mainly to predict responses to advice from clinicians and others about treatment and preventive action. For example, people who have had acute bronchospasm and have been diagnosed as having asthma may believe erroneously that the illness is of short duration and so would not use medication such as beclometasone recommended by their physician to prevent another acute attack. However, further attacks may cause them to revise their hypotheses about cause and duration of the problem so that they do use the prophylaxis. The success of that may cause them to revise their notion of control of asthma. Further revisions may occur when they hear of athletes having asthma, thus suggesting that it can occur in otherwise healthy people, and when they hear that death can be the result of a severe acute attack of asthma.

Scharloo and Kaptein (1997), having reviewed 101 studies on the perception of illness, confirm the influence of each component of the SRM for the outcomes of many different illnesses. Beliefs about the control of illness are probably most influential in the uptake of treatment and prevention. For example, the belief that cancer is curable and that the side-effects of treatment can be controlled has predicted the uptake of post-surgical treatment in breast cancer patients (Simmons, 2003). Beliefs encompassed by the SRM can also predict emotional responses, notably depression and anxiety, to the experience of illness and treatment (Scheier & Carver, 2003; e.g., Thune-Boyle, Myers, & Newman, 2006).

There have been no corresponding studies of beliefs in people who are about to be provided with false teeth for the first time or who have had experience of wearing them. These beliefs could be influenced by lay opinions and experiences reflected on the Internet suggesting that false teeth, especially those provided by publicly funded dentistry, are uncomfortable and must be tolerated stoically, make difficult the chewing of food, can even be dangerous and can expose one's appearance to ridicule. See, for example, websites quoting, ''things your mother never told you about false teeth'', ''dentures yes or no: people who wear them can barely chew their food'', ''the hospital sent me home with false teeth lodged in my throat'' and depicting a politician losing his teeth during a speech.

The SRM would suggest that information about the causes of symptoms associated with dental prostheses, the duration of those experiences, and how denture wearers may control them (Horne, 2003) should help to make new dentures tolerable. They would thus more closely match patients' most favourable expectations. We expected that patients given such information would report more favourable functioning of their dentures for eating, speaking, appearance, comfort and intrusiveness and would show correspondingly less distress than patients given routine information as part of treatment as usual.