INTRODUCTION

The topic area assigned to this study section was the evaluation of the literature dealing with psychophysiological disorders defined by DSM II that were not covered by other study sections. According to DSM II, psychophysiological disorder is "characterized by physical symptoms that are caused by emotional factors and involve a single organ system, usually under autonomic nervous system enervation. The physiological changes involved are those that normally accompany certain emotional states, but in these disorders the changes are more intense and sustained." Obviously, by this definition, a wide variety of illnesses can be included. Many of the major areas where biofeedback has been used to treat disorders of this type such as gastrointestinal or cardiovascular problems have been examined by other study sections. The remaining psychophysiological disorders fall into four broad categories in which this task force reviewed the research literature in some detail. The categories are (1) psychophysiological musculoskeletal disorders (excluding muscle tension headache), (2) psychophysiological genitourinary disorders, (3) psychophysiological skin disorders, and (4) psychophysiological endocrine or metabolic disorders. Other categories mentioned in DSM II were not included due to lack of published research in the areas.

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LITERATURE SOURCES

In order to maximize comprehensiveness of the literature survey, two separate computer searches and a manual search of specific relevant journals were performed. In addition, bibliographies of obtained articles were cross-checked for additional references.

REVIEW METHODS

After the obtained articles were divided into the major categories listed, each committee member was assigned to review components of these categories, which will be briefly summarized at the end of this paper. The following number of articles in which biofeedback was the primary form of treatment were reviewed: case histories (17); larger sample single or multiple group studies (12); controlled, systematic group designs (3). For every article reviewed, an article rating form based on a modification of the format introduced by Noland (1958) was completed in order to standardize the evaluation of the literature. The article rating form included the article reference, type of article, types of measures employed, and nine areas of evaluation that were rated from 0 (inadequate) to 3 (superior). A sample of this form and the instructions of its usage are found in the appendix, along with a summary table of this information listing each article and the ratings assigned by the reviewers. It is hoped that this type of standardized rating system will enable us to critically evaluate the state of the art of biofeedback. By directly pointing out the strengths and weaknesses of the various research areas, it is hoped that this report may serve to increase awareness of problems in biofeedback research strategy, help establish more stringent evaluation criteria, and lead to new approaches or enhancement of current biofeedback treatment modalities.

PSYCHOPHYSIOLOGICAL MUSCULOSKELETAL DISORDERS

Tic

It has been hypothesized by a number of authors that frequent, uncontrollable muscle twitching (tic) can be conceptualized as learned, conditioned avoidance responses originally evoked in traumatic situations (Yates 1958). If the tic movements coincide with the cessation of the fear-provoking situation, the tic may become a conditioned response by its association with anxiety reduction. A vicious cycle is formed as the