

Experimental Management Procedures for Chronic Pain

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Pain in one form or another and in some degree is one of the universal experiences of mankind. Much of the pain human beings experience can be quickly alleviated by bringing appropriate medical influence to bear on the underlying pathology thought to be responsible for the pain symptoms. When the pathology cannot be influenced significantly, medical management may bring about symptomatic relief through palliative medication or surgery. A number of conditions, however, appear to be associated with long term continuous or intermittent pain symptoms having little prospect of permanent remission. A number of forms of arthritis are productive of such symptoms — symptoms characterized as chronic pain.

There is much evidence that individuals differ noticeably in their reactions to pain thought to be of comparable intensity. This in turn suggests a significant learning component associated with pain response. Pain response has been found to vary with nationality, race, religion, age and other factors. Among Polar Eskimos, for example, the appropriate response to pain is reported to be laughter. Papago Indians apparently interpret the significance of pain in their lives in such a way as to make their responses seem stoical by middle-class caucasian standards. These well-known facts suggest the feasibility of a learning approach to the management of chronic pain. In other words, the variation in pain response to learning — granting the possi-

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bility of other response determinants such as genotypic influences — indicates that individuals suffering from chronic pain might learn to live with it productively through the utilization of appropriate techniques.

One of the promising approaches to a learning-type model in pain management is the operant condition technique. Considerable success has been achieved with this procedure at the College of Medicine Pain Clinic, University of Washington in Seattle. Very simply stated, through selective reinforcement of predetermined behavior patterns the individual learns to function in a productive fashion without the aid of palliative medication or treatment. Application of this model yields a set of strategies and premises different from those derived from the medical model.

Operant conditioning is a technique which assumes a functional relationship between behavior and its consequences. Desirable behavior is rewarded immediately by positive reinforcers, i.e., consequences that strengthen behavior. Undesirable behavior, on the other hand, is followed by negative reinforcers or undesirable consequences. Under these conditions the undesirable behavior is likely to decrease and the desirable behavior to increase. It should be noted that what may constitute a positive reinforcer for one person may not be so for another. The three conditions necessary for the application of the operant procedure are, first to identify the behavior to be produced, increased or maintained and also that to be decreased or extinguished; sec-

ond, to determine the kind of reinforcers to be used; third, to develop sufficient control over the therapeutic environment to be able to regulate the consequences (the occurrence and non-occurrence of reinforcers) of the behavior to be influenced. This control generally must be extended to the environment outside the hospital, for unless the procedure enjoys the active participation of the individual's family the gains made in the hospital may diminish or extinguish upon the patient's discharge.

Inasmuch as medication under usual conditions is given following the patient's request or expression of discomfort, the first step in the operant procedure following the orientation of patient and family, is to shift medical prescriptions from a pain contingency to a time contingency. This means that medication is administered according to a time schedule rather than according to the patient's requests or complaints. Next the analgesic components of the prescription are put in a masking substance which permits variation in dosage without the patient's knowledge. Finally, the time interval is extended until the amount of medication received is minimal or inconsequential.

One of the most effective positive reinforcers is social attention on the part of the staff — the nurse, the physician, the physical therapist and so forth — all participants in the therapeutic regimen. The staff are instructed to be alert and responsive to

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