

Pain Hurts

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Abstract. *Professionals who are involved in life care planning and case management will likely have some clients with chronic, and sometimes debilitating, pain. This special issue of the Journal of Life Care Planning includes a variety of articles selected to provide a broad range of information to the reader. One article relates to general chronic pain assessment, another focuses on pediatric pain, a third addresses spinal cord injury related pain, and the fourth reviews amputation related pain syndromes. This editor's column will offer some definitions and terms as well as basic pain related issues.*

Introduction

There are an estimated 30 to 40 million adults (representing 15 to 20% of the population) in this country who suffer from chronic pain (Moreo, 2003; Brownlee & Schaf, 1997). Each year millions of people seek relief through various medical resources and the overall cost in lost work days, medical treatment, and additional psychological counseling can be enormous. According to Moreo (2003), the cost directly related to back pain is estimated at \$25 billion. Including back pain as well as other pain syndromes such as migraine and headache pain, osteoarthritis, rheumatoid arthritis, fibromyalgia, failed surgical fusion of lumbar or cervical spine, complex regional pain syndrome/reflex sympathetic dystrophy, causalgia, diabetic neuropathy, and cancer pain, cost estimates exceed over \$40 billion annually. Of the workforce, complaints of pain and related complications of pain result in one quarter of all the sick days taken, or, restated, over 50 million lost work days per year are due to pain (Brownlee & Schaf, 1997).

Definition of Pain

As a prelude to the featured articles in this special issue, it is important to understand that a precise definition of pain is elusive. It seems as if no one can truly objectively describe what pain is (Weed, 1987). Pain appears to be a subjective experience measured primarily by self report (Merskey, 1964; Sternbach, 1968; Engel, 1970; Merskey, 1972; Melzak, 1973; Skinner, 1974; Sternbach, 1974; Shealy, 1976; Fordyce, 1976; Bresler, 1979; Ramsey, 1979; International Association for the Study of Pain, 1979; and Loeser, 1980). The research indicates that the pain threshold is similar from person to person and culture to culture, but pain tolerance can vary dramatically (Shealy, 1976). Sternbach has simply stated that "pain is a hurt we feel" (1968, p. 1).

Understanding the definition of pain even becomes more difficult because of the words which can be used to describe pain. Sternbach (1974) has identified more than 100 words that

people use to describe their pain. Pain seems clearly not merely a neurophysiological event, but a combination of variables complicated by evidence that pain is not simply what a patient says it is (Fordyce, 1976). One definition of pain offered by Sternbach (1968) is: "Pain is an abstract concept which refers to: (1) a personal, private sensation of hurt; (2) a harmful stimulus which signals current or impending tissue damage; and (3) a pattern of responses which operate to protect the organism from harm. These responses can be described in terms which reflect certain concepts, i.e., in neurological, physiological, behavioral, and affective 'languages'" (p. 12). Another definition offered by the International Association for the Study of Pain (IASP) as cited in Mersky and Bogduk (1994) is, "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage" (p. 210). As one can understand from just the challenge of arriving at a precise definition of pain, treatment of pain is even more complex.

Operants and Respondents

Although the articles in this special issue are primarily authored by physicians and will focus on medical treatment, there are foundational concepts that life care planners will find of value. In the study of pain, voluntary behaviors (operants) and involuntary reactions or behaviors (respondents) have been the object of research for decades and a review of basic definitions from behaviorist B.F. Skinner (1938) have been used to help define the concepts. Operants are thought to be under the control of the person and have been attributed to active will with no necessary prior causal event. Reflex behavior, on the other hand, is not under comparable control and "has even been attributed to evading wills..." (p. 44). Further, Skinner (1974) seems to indicate that respondent conditioning is appropriate to the autonomic nervous system, and operant conditioning is appropriate to the skeletal musculature.

However, Fordyce (1976), at the University of Washington, has written that, in his opinion, "respondents" or organism responses are elicited by antecedent stimuli. In that sense, they are reflex in nature. Usually these respondents have been thought to include, among other things, glandular or smooth muscle responses; i.e., they are automatically mediated. When a respondent is observed to occur, it is assumed that it is preceded by appropriate stimulation. In this event, Fordyce opines that if the respondent occurs, then a stimulus was there. In contrast, operants primarily involve striated or so called "voluntary" musculature. Further, Fordyce (1976) states that, "operants may be elicited by antecedent stimuli. However, they have the significant characteristic of also being able to influence consequences that follow their occurrence" (p. 37). As a result, when an operant behavior is followed by a positive reinforcer, then there also tends to be an increase in which the frequency of the behavior subsequently occurs. Operants also diminish in frequency if they are followed by aversive consequences or by the absence of positive reinforcers (Fordyce, 1976).

When one reviews the literature regarding pain, it becomes evident that a great amount of frustration has been experienced by professionals in attempting to effectively treat pain (Ward & Weed, 1999/2004). Some authors, particularly physicians, have written that they are perplexed by the differences in the way people respond to pain. For example, Beecher (1959) reports that he had the opportunity to compare people with similar injuries: ones who were injured on a battlefield and others who were similarly injured while performing their jobs. He notes that the differences in pain responses were, in his opinion, significant. This seemed to indicate the influence of factors on the perception of and the response to pain. Fordyce (1976) agrees that pain is influenced by learning or conditioning. This has prompted specific attempts

to observe and measure behavior, since behavior is more reliable than self reports. At least two authors state pain behaviors are, for the most part, operants (Fordyce, 1976; Ghia, 1977). Given this premise, the idea of employing behavioral procedures to modify pain problems seems very appropriate.

The key principles of acquisition of operant pain can be stated as follows: "Respondents have their specific stimuli and occur automatically when the stimulus is adequate. Respondents can, therefore, be said to be controlled by the antecedent stimuli. Operants in contrast are responsive to influences of the consequences that systematically follow their recurrence. Operants can and do occur as a direct and automatic response to antecedent stimuli. In addition, operants may come to occur because they are being followed by positive or reinforcing consequences" (Fordyce, 1976, p. 42).

Behavioral Based Descriptions of Pain

In order to discuss pain in behavioral terms, at least two authors (Sternbach, 1968; Fordyce, 1976) have classified pain behaviors in language and nonlanguage terms. Examples of nonlanguage pain behavior include body posturing, gesturing, limping, rubbing a painful area, grimacing, and displaying functional limitations or impairment such as reclining excessively or staying home from work because of pain.

Examples of language pain behaviors include moans, requests for medication, requests for assistance, and verbal refusal to participate in an activity because of pain. Similar examples have been used by other researchers in pain behaviors (Shealy, 1976; Beecher, 1959). It seems that for treatment aspects, observable behavior rather than self reports offer the most reliable indications of objectivity (Bresler, 1979). When a physician or health care provider accepts language and nonlanguage behaviors as evidence of perceived pain, and proceeds with treatment on the basis of behavioral techniques that most pain behaviors are operants, then it becomes possible to routinely, methodically, and scientifically modify behavior. When behavior is changed or influenced through manipulation of consequences, and patients report or are observed to display functional impairment from pain, such as spending a great deal of time in bed, or complaining about pain, then it is possible to employ behavioral treatment procedures in the treatment of pain.

It is also possible to consider physiological responses to pain such as respiration, gastric responses, and brain wave activity. For example, biofeedback has been reported as quite successful in the treatment of tension headaches (Aronoff, 1978). When individual patients have been evaluated, a program of "ill behaviors" can be identified and training initiated to establish "well behaviors" by use of behavior therapy techniques. In this way, patients are expected to give up the invalid role, reduce dependence on psychotropic medication, and learn to manage their pain. Likewise, staff members in treatment programs can serve as important models for new patients to observe and thus acquire new behavioral repertoires (Gottlieb, 1979).

A review of the literature regarding pain and behavioral treatment procedures reveals that most research in this area appears to be in treatment of chronic pain (Ward & Weed, 2004; Oakes, 2004). For purposes of this editorial, chronic pain is defined as reported pain experienced every day for a period of at least six months (Shealy, 1976). Other relevant definitions are acute pain which is defined as existing from the date of onset to one month and subacute pain which is defined as pain lasting from one month to six months (Ward & Weed, 2004).

The articles selected for inclusion in this journal will depart from the behavioral aspects described above and focus more intently on pain assessment and treatment that results from

trauma induced injuries rather than pain from other medical conditions, like cancer.

Vocational Related Issues

It is commonly believed that persons receiving disability insurance benefits, involved in personal injury litigation, or receiving other forms of disability benefits take longer to return to work and are more difficult to rehabilitate (Rasch, 1985; Smith & Crisler, 1985; Field, Weed & Grimes, 1986). This is consistent with historical research which consistently revealed poor return to work rates for workers' compensation clients. For example, three surveys cited by Lynch (1979) revealed 40 percent of workers' compensation claimants were not working or only working part-time four to six years post-injury. In the second survey, 41 to 45 percent were not working four years post-injury, and an eight year follow-up survey found 10 percent never returned to work while 50 percent experienced "severe unemployment" before finding work.

At least one key to successful employment for individuals with pain is related to adequate assessment and medical treatment (the focus of the selected articles).

Other "keys" include:

- Early referral to rehabilitation. Multiple studies have supported the concept that early referral to rehabilitation is a critical element (Weed & Field, 2001).
- The vocational expert should be educated in chronic pain syndromes. Outlook, expectations, and a coordinated plan are very important ingredients.
- The vocational expert should have excellent counseling skills. Being able to deal with depressed, anxious and "helpless" clients is a skill in which counselors have been trained. It is useful to know that many clients need to develop a relationship with the vocational counselor before understanding that "the light at the end of the tunnel" is not another train coming in the opposite direction.
- Adequately understand the client. There are indicators from anecdotal research which will "clue" the vocational counselor. For example, typically, clients who hire attorneys, fail to comply with medical treatment, question every request, and the employer does not like or who do not get along well with others at the workplace are much less likely to have a successful return to work than the injured worker who complies, is well liked by the employer and co-workers, and is enthusiastic about doing whatever they can to return to work (for more information see Table 3.4, page 56, in Weed & Field, 2001).

Conclusion

Pain, when present, continues to challenge not only our clients but also the professionals who assist them. Considerations for pain management and treatment are an extremely important component of life care planning and life care planners would be well-suited to become familiar with pain protocols and related long-term care considerations. It is hoped the articles in this special issue of the *Journal of Life Care Planning* will provide more advanced knowledge in the area of pain and resources for the life care planner. Working with talented professionals who are able to comprehensively assess and treat clients with chronic pain will continue to be just one element of developing a comprehensive care plan. There are many other ele-

ments to consider such that, in this author's opinion, chronic pain will continue to be a "hotbed" area of research and discovery.

References

- Aronoff, G. & Wilson, R. (1978). How to teach your patients to control chronic pain. *Behavioral Medicine, July*, 29-35.
- Beecher, H. (1959). *Measurement of Subjective Responses*. New York, NY: Oxford University Press.
- Bresler, D. (1979). *Free yourself from pain*. New York, NY: Simon & Schuster.
- Brownlee, S. & Schaf, J. (March 17, 1997). Quality of life. *U.S. News and World Report*, 54-62.
- Engel, G.E. (1970). Conversion symptoms. In C.M. MacBryde & R.S. Blacklow (Eds.). *Signs and Symptoms* (5th ed., pp. 650-668). Philadelphia, PA: J.B. Lippincott.
- Field, T., Weed, R., & Grimes, J. (1986). *Vocational expert handbook*. Athens, GA: Elliott & Fitzpatrick.
- Fordyce, W.E. (1976). *Behavioral methods for chronic pain and illness*. St. Louis, MO: C.D. Mosby Company.
- Ghia, J. (1977). The management of chronic pain: An evaluation of recent developments, with special reference to regional anesthesia and the pain clinic. *North Carolina Medical Journal*, 38, 390-393.
- Gottlieb, H., Strite, L., Koller, R., Medorsky, A., Hockersmith, V., Kleeman, M., & Wagner, J. (1977). Comprehensive rehabilitation of patients having chronic low back pain. *Archives of Physical Medicine and Rehabilitation, (March)* 58, 101-108.
- Gottlieb, H., Alperson, B., Koller, R., & Hockersmith, V. (1979). An innovative program for the restoration of patients with chronic pain. *Journal of American Physical Therapy Association*, 59(8), 996-999.
- I.A.S.P. (1979). International Association for the Study of Pain, subcommittee on taxonomy. *Pain*, 6, 249-252.
- Loeser, J. D. (1980). Components of chronic pain. Unpublished manuscript.
- Lynch, R. (1979). Vocational rehabilitation of worker's compensation clients. *Journal of Applied Rehabilitation Counseling*, 9(4), 164-167.
- Melzak, R. (1973). *The puzzle of pain*. New York, NY: Basic Books, Inc.
- Merskey, H. (1964). *An investigation of pain in psychological illness*. Unpublished doctoral dissertation. Oxford, England.
- Merskey, H. (1972). Personality traits of psychiatric patients with pain. *Journal of Psychosomatic Research*, 16, 163-166.
- Moreo, K. (2003). *Managing low back pain*. Miramar, FL: Author.
- Oakes, M. (2004). Chronic pain medications: Current trends for life care planners. *Journal of Life Care Planning*, 3(3), 177-191.
- Ramsey, R. (1979). The understanding and teaching of reaction to pain. *Bibliotheca*
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Psychiatria, 159, 114-140.

- Rasch, J. (1985). Rehabilitation of workers' compensation and other insurance claimants. Springfield, IL: Charles C. Thomas.
- Shealy, C. (1976). The pain game. California: Celestial Arts.
- Skinner, B. F. (1938). Behavior of organisms. New York, NY: Appleton-Century-Cross.
- Skinner, B. F. (1974). About behaviorism. New York, NY: Random House.
- Smith, J. K., & Crisler, J. R. (1985). Variables associated with the vocational rehabilitation outcome of chronic low back pain individuals. *Journal of Rehabilitation Counseling, 16*(4), 22-24.
- Spengler, D., Loeser, J., & Murphy, T., (1985). Orthopedic aspects of chronic pain syndrome. Unpublished manuscript.
- Sternbach, R. A. (1968). Pain: A psychophysiological analysis. New York, NY: Academic Press.
- Sternbach, R. A. (1974). Pain patients: Traits and treatment. New York, NY: Academic Press.
- Ward, T. & Weed, R. (1999/2004). Life care planning issues for chronic pain. In R. Weed (Ed.) *Life Care Planning and Case Management Handbook* (2nd ed., pp. 455-481). Boca Raton, FL: CRC Press, LLC.
- Weed, R. (1987). Pain basics. *Journal of Private Sector Rehabilitation, 2*(2), 65-71.

About the Special Issue Editor

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