A PSYCHOLOGICAL PROFILE OF CHIROPRACTIC PATIENTS: AN AUSTRALIAN CASE STUDY

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ABSTRACT

Background: The efficiency and efficacy of the chiropractic consultation would be enhanced if patients requiring additional psychological assistance could be identified. Distressed patients and those with a low sense of coherence and/or manageability score may benefit from a more prolonged chiropractic consultation or may require specialist referral.

Objective: This exploratory study sought to ascertain whether categorization within a particular chiropractic management group could serve as a red flag to alert the practitioner to the likelihood of special patient needs.

Research Method: A case study to explore the psychological profile of chiropractic patients was undertaken. The DRAM (Distress and Risk Assessment Method) and SOC (Sense of Coherence) questionnaires were used to ascertain the distress and sense of coherence and manageability levels of acute, chronic and maintenance chiropractic patients. Purposive sampling of practitioners and convenience sampling of patients fulfilling the study's inclusion criteria was undertaken. Patients were requested to complete two and chiropractors to complete one questionnaire and an interview.

Results: Ten chiropractors and 142 patients participated in the study. Of participating patients, 38% had a chronic biomechanical problem, 23% were acute, and 39% were maintenance patients. Acute, chronic and maintenance patients were spread along the entire spectrum of the SOC and manageability scale. Of the 130 patients who completed the DRAM section of the questionnaire, over one in five were distressed.

Conclusion: Due to the small sample size and the diversity of results it was not possible to identify particular groups of chiropractic patients who require additional consultation time or referral. This study did however demonstrate that some chiropractic patients are distressed and consequently it is important that chiropractors know when to manage and when to

refer anxious or depressed patients. (*J Chiropr Med* 2002;1: 107-112)

KEY INDEXING TERMS: Chiropractic; Psychological Profile

INTRODUCTION

Cassel advocates teaching patients how to understand and control their body (1). Chiropractors, with their manual skills and their understanding of health, are uniquely placed to undertake this task. Efficacy expectations are the belief that successful execution of particular behaviors will achieve a desired outcome (2). Self-efficacy is the belief that performing a chosen behavior will lead to a desired outcome and that one can successfully perform the behavior. Chiropractors can enhance their patients' self-efficacy.

Self-efficacy is one of a number of constructs hypothesized to explain phenomena that help an individual stay healthy under various kinds of stress. Similar constructs include Antonovsky's sense of coherence, Kobasa's hardiness and Rosenbaum's learned resourcefulness (3). Rosenbaum's individual who demonstrates learned resourcefulness resembles the individual with high efficiency (4). Learned resourcefulness is the belief that one can effectively deal with "manageable" levels of stress. It includes personal beliefs, self-control skills and behaviors. Hardy individuals tend to experience life in ways similar to people rich in learned resourcefulness. Hardiness enables people to modify the effects of stress by transforming their coping strategy through, amongst others, reinterpretation and/or confrontation of the situation and the effective use of resources. Personality concepts relevant to hardiness are commitment, control and challenge. Commitment is belief in the truth, importance and value of what one is doing; control is the tendency to believe and act as if one can influence the course of events and challenge is based upon acceptance of change as normal and holding the promise of an opportunity. Hardy people have a number of characteristics in common with persons with a strong sense of coherence (SOC). A person with a strong SOC is less likely, than one with a low SOC, to perceive many stressful situations as threatening and anxiety provok-

ing. Antonovsky's model has three dimensions (5,6). Comprehensibility is high when the individual perceives that external and/or internal stimuli are structured, predictable and explicable. Manageability is high when individuals believe they have adequate resources available to manage demands and meaningfulness is present when challenges being confronted are regarded as worthy of investment and engagement.

Learned resourcefulness, hardiness and a sense of coherence are thought to mitigate stressful events at different phases of the self-control process. A sense of coherence and hardiness influence the initial evaluation of the stressful event; learned resourcefulness is postulated to influence one's reactions to the stressor. Persons with a low SOC are more likely to show distress and cope with stressful situations in ways less likely to resolve or alleviate their distress (7). Persons with a low SOC may benefit substantially from reconstruction of their clinical reality (8). The chiropractic consultation provides an explanation for the problem, enhances the patient's resources for managing the problem and predicts the outcome of therapy. The chiropractic consultation can be used to enhance patient's efficacy expectations (9). It may serve as a trigger to positively modulate the comprehensibility and manageability dimensions of the patient's sense of coherence.

Distressed patients may be depressed or anxious. Their distress may be physiological or pathological. The DRAM (Distress and Risk Assessment Method) is recommended as a screening tool to aid clinical appraisal of patients in orthopedic, back and pain clinics (10). Patients identified as "distressed" by this tool have been found to respond less well than those designated as "normal." Patients with psychopathological depression

Figure 2: Manageability by diagnosis.

or anxiety will respond particularly poorly in the absence of additional specialist care. Appropriate referral of patients with psychopathological depression or anxiety would refine the chiropractic consultation process. It is not unreasonable to assume that the efficiency and efficacy of chiropractic care could be enhanced by discriminating between patients amenable to the chiropractic consultation and those who require referral for psychological counseling or psychiatric care.

Patients who are distressed respond less readily to routine clinical management (10), and persons with a low SOC may require special attention to enhance their coping resources and change their efficacy perceptions. It may consequently be useful for chiropractors to ascertain the psychological profiles of their patients. As it is also recognized that psychosocial factors dominate in the presentation of chronic low back pain in adults (11), it may be particularly useful to explore the psychologi-

Figure 1: SOC by diagnosis.

Figure 3: Diagnosis by DRAM category

cal profile of chiropractic patients with chronic biomechanical problems. Furthermore, although symptom reduction is a consistent goal in treating acute pain, in chronic pain the focus shifts toward achieving functional gains (12). Psychological factors have a profound influence on functional status. It may therefore be productive to describe the level of distress and sense of coherence of chiropractic patients with chronic pain and compare this to the psychological profile of acute and maintenance chiropractic patients.

METHODS

A case study to explore the psychological profile, using the DRAM (10) and SOC questionnaire, of chiropractic patients was undertaken. Three groups of patients diagnosed as chronic, acute or requiring maintenance care were included. In order to ensure maximum variation amongst the study population, purposive sampling of chiropractic practices was undertaken with a view to including patients from diverse geographical and socioeconomic circumstances and to involving practitioners with various practice philosophies. Chiropractic practices in Victoria, Tasmania, Queensland, New South Wales, the Australian Capital Territory and South Australia were included. Patients attending practices in inner city, suburban, coastal and country areas participated. Eligible chiropractors had to have completed at least 5 years in clinical practice. Sixteen chiropractors were invited to participate.

Convenience sampling of chiropractic patients who met the inclusion criteria was undertaken by participating practitioners. In selecting the patient sample, chiropractors were requested include adult patients in the study who fulfilled the criteria for one of the following categories:

1. Maintenance patients. Inclusion criteria for this group were patients:
 - designated as presenting for maintenance care by the chiropractor
 - who present for regular chiropractic care even when not symptomatic

2. Acute patients. Inclusion criteria for this group were:
 - symptomatic patients
 - patients who have experienced pain or discomfort for less than 3 months.
3. Chronic patients. Patients had to have experienced pain or discomfort for 3 or more months were to be categorized as chronic patients. Other inclusion criteria for patients with chronic mechanical spinal pain were:
 - atypical/asymmetrical vertebral motion including motion palpation and end feel
 - joint and surrounding soft tissue dysfunction including the concept of sprain/strain
 - joint and surrounding soft tissue tenderness
 - a manipulative lesion in which altered alignment, movement or function can be improved by manual thrust procedures (13)
 - back pain in the absence of local and/or referred pathology (14)

In addition to selecting the patient sample chiropractors completed a questionnaire on each participating patient and commented on each of their patients response to treatment.

All participating patients were requested to complete two questionnaires based upon the DRAM (10) and SOC (5):

- the first on initiation of therapy/at presentation
- the second either 14 to 21 days after initiation of therapy or upon termination of therapy, whichever occurred first.

RESULTS

Ten chiropractors and 142 patients participated in the study. Of participating patients 38% had a chronic biomechanical problem, 23% were acute, and 39% were maintenance patients. Over two-thirds of patients were

TABLE 1
USEFUL QUESTION TO DETECT MASKED DEPRESSION

CLINICAL FEATURE	QUESTION TO ASK
FLATNESS OF MOOD	ARE YOU GETTING ENJOYMENT OUT OF LIFE?
LOSS OF MOTIVATION	HAVE YOU LOST INTEREST IN WORK/HOBBIES?
LOSS OF SELF-WORTH	HOW DO YOU FEEL ABOUT YOURSELF?
AVOIDANCE BEHAVIOUR (SHUNS PEOPLE)	DO YOU MIX WELL WITH OTHER PEOPLE?
LOSS OF PHYSICAL ENERGY	HOW DO YOU RATE YOUR ENERGY LEVEL SCALE 1-10?
STRESS INTOLERANCE	DO YOU FIND IT INCREASINGLY DIFFICULT TO COPE?
A DISTURBED SLEEP PATTERN	HOW ARE YOU SLEEPING?
AN ALL PERVADING ANXIETY	DO YOU FIND YOURSELF AGITATED DURING THE DAY?
SUICIDAL THOUGHTS	DO YOU FEEL YOU DON'T WANT TO LIVE?

between 30 and 60 years of age. The male: female ratio of participating patients was 5:6.

Figure 1 demonstrates the SOC distribution, and Figure 2 the manageability score of patients within each diagnostic grouping. Acute, chronic and maintenance

patients were spread along the entire spectrum of the SOC and manageability scale. While it is possible that a relatively greater proportion of maintenance patients are at the high end of the SOC scale, participant numbers in this study do not permit any reliable conclusion.

FIGURE 4 GUIDELINES FOR REFERRAL: THE ANXIOUS PATIENT

Morbid anxiety serves no useful purpose once established and is maladaptive. Patients with morbid anxiety should be referred for specialized attention. Morbid anxiety may present as a:

- ☐ generalised anxiety. Anxiety is pervasive and unrelated to particular persons or events. Autonomic changes associated with anxiety in turn lead to changed body sensations. Awareness of changed body sensations can, in turn, lead to anxiety. Once initiated, a cycle of increasing anxiety can be perpetuated.

The individual experiences:

- a pervading persistent sense of anxiety
- excessive worry about trivial or unrealistic problems
- free floating anxiety which is unrelated to any specific event or situation.
- at least 6 of the following:
 - feelings of apprehension, an exaggerated startle response, hypervigilance
 - irritability, impatience, sensitivity to noise
 - difficulty concentrating, mental 'blanks'
 - sleep disturbance
 - autonomic dysfunction: palpitations, dizziness, dysphagia, diarrhoea, hyperventilation, urinary frequency, a clammy skin
 - motor tension: restless, tremble, myalgia, headache, fatigue

- ☐ a phobia. This presents as fear:
- which is linked to specific situations.
 - the intensity of which is out of proportion to any realistic threat.

- ☐ a panic attack. Episodes of intense incapacitating fear are experienced.

Panic disorder is diagnosed when:

- no realistic anxiety trigger can be identified
- a single attack is followed by 4 weeks during which fear of a second attack is experienced or 4 attacks occur in a 4 week period
- 4 of the following are present during an attack:
 - acute dyspnoea
 - dizziness
 - palpitations
 - trembling
 - flushes, chills or sweating
 - paraesthesia
 - depersonalisation

- ☐ post traumatic stress. Patients:
- have been exposed to a particularly stressful event
 - persistently relive the stressful event.

- ☐ neurotic behaviour patterns. Patients demonstrate:
- maladaptive lifestyle patterns
 - anxiety which is reduced in the short term by the maladaptive behaviour.
 - defence orientated avoidance behaviour.
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Figure 4: Guidelines for referral: The anxious patient

FIGURE 5 AN APPROACH TO DEPRESSION FOR CHIROPRACTIC PRACTICE

☐ Diagnose depression if two positive responses are given to the following:

Do you feel depressed?

Has there been a change in your self-esteem?

Are you more self-critical than usual?

Additional findings may include:

- feeling helpless/hopeless
- a sense of giving up
- feeling guilty or worthless
- being pessimistic about the future

Suspect physiological depression if:

☐ The depression is of less than 14 days duration

☐ There is no significant mood disturbance or social impairment

Suspect clinical depression if:

☐ depression has lasted longer than 14 days

☐ there is significant mood disturbance or social impairment

Consider not referring if:

- no observable psychomotor disturbance is present
- the mood is reactive and improves during the chiropractic consultation

Consider referral for psychological counselling in cases with:

- moderate psychomotor disturbance
- diurnal variation in mood
- diurnal variation in energy
- no psychotic features

Consider psychiatric referral in cases with:

- severe psychomotor disturbance(poverty of movement and ideas, agitation)
- psychotic features(delusions, hallucinations)
- no diurnal mood variation
- constipation

Figure 5: An approach to depression for chiropractic practice

Figure 3 compares the distribution of normal, at risk and distressed patients within each study group. Of the 130 patients who completed the DRAM section of the questionnaire, over one in five were distressed. Eighteen percent (18%) of acute, 27% of chronic and 12% of maintenance patients were found to be distressed. At the time of completing the first questionnaire, the overall ratio of distressed patients experiencing anxiety compared to depression was 3:1. Upon completion of the second questionnaire the relative number of depressed patients had increased to 5:2. At initial consultation, two-thirds of acute patients categorized as distressed

were anxious. Among chronic patients who were distressed, half were depressed and half were anxious.

DISCUSSION

Although the sample size is too small to achieve statistical significance and the study too limited to make any reliable generalizations, this exploratory study did identify a measure of distress in patients seeking chiropractic care. It is of substantive significance to the individual practitioner to know that a proportion of their presenting patients are distressed. In fact, distress would appear

to be common among chiropractic patients, especially those with chronic biomechanical problems. It is therefore important that chiropractors are able to recognize clinical evidence of anxiety and depression and refer when appropriate.

Symptoms of anxiety include, irritability, emotional lability, poor concentration, memory blocks, disorganized thinking. Symptoms of depression include fatigue, vague aches/pains, moderate despair, and feelings of rejection, loss of self-esteem, mild psychomotor retardation, feelings of hopelessness and loss of motivation. Depression may be clinically overlooked. Questions which may be asked to help detect masked depression are listed in Table 1. Depression and/or anxiety may also induce a mild autonomic disturbance manifest as a change bowel habit, a dry mouth, palpitations, a change in the menstrual cycle and/or weight loss.

Anxiety and depression may present as functional disorders in their own right or may complicate organic disease. In fact, monokines secreted by macrophages can cause myalgia, malaise, anorexia, fatigue and depression (15). It is not only important that chiropractors recognize distressed patients, it is also desirable that they determine whether anxiety or depression is physiological, pathophysiological or a manifestation of psychopathology. While physiological distress will respond well to time and routine chiropractic care, pathophysiologically and psychopathologically distressed patients may require referral. Laboratory investigations provide definitive information when diagnosing distress attributable to underlying disease. In contrast to distressed patients with organic disease, all chemical tests are within normal limits in functionally distressed patients. Laboratory investigations are also unhelpful in determining psychopathology. Psychopathologically distressed patients are however characterized by recognizable symptom complexes. Figures 4 and 5 provide guidelines for recognizing and referring distressed patients with psychopathological anxiety and/or depression (16).

Distressed patients who do not require referral, like those with low SOC and manageability scores, require chiropractic intervention that is not limited to a manual adjustment. Such patients require a clinical consultation that specifically promotes their coping skills. They require a consultation that includes development of a

health management contract that involves them in their health care, promotes their task-orientated coping and provides them with new life management skills (17).

CONCLUSION

Although the sample size was too small and the results too diverse for this study to achieve any predictive reliability, the results are relevant to the individual chiropractic-patient encounter. The prevalence of distress amongst chiropractic patients identifies the need for chiropractors to be competent in detecting the presence of and ascertain the nature of depression and anxiety. Differentiation between patients who require additional consultation time to enhance their coping skills and those who require referral for management of their distress further refines chiropractic clinical care.

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