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# NEUROPSYCHIATRY

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### **Dilemma of the Severity of Pain and Its Relationship to Function and Disability**

The major problem in the evaluation and treatment of chronic pain is the frequent discrepancy between the patient's reported level of pain and the resultant functional status, versus the physician's perception of what the patient should be able to do functionally. This is attributable to the following complex problems:

1. ***Chronic pain patients perceive their pain as a disability that limits their functional status (25)***, which perception has been investigated by Riley (25). To address this problem, he developed the Pain and Impairment Relationship Scale (PAIRS). The PAIRS was shown to CLBP patients with four standardized measures of physical/overall impairment that were not intercorrelated (25) and the authors interpreted the findings indicated that patients who are more impaired are more impaired as a function of their pain (25). The great number of patients who claim disability based on pain alone has forced the U.S. Social Security Administration Commission on the Evaluation of Pain to recommend a listing based on "impairment due primarily to pain." (42a)
2. The pathology model does not predict back pain (43), making the reliability and validity of this model questionable. Thus, objective medical impairment may vary markedly from subjective disability (44). Also, chronic pain patients often lack documentation of clear structural organic pathology (45), thus having minimum medical impairment as currently rated by the American Medical Association Guides to Permanent Impairment (46) or demonstrating higher disability than medical impairment ratings (47).
3. ***Medical impairment ratings vary widely from one physician to another (48, 49) and so do measures of disability (50)***. These differences in impairment ratings have

been blamed on evaluation schedules that are not scientifically based and that do not take functional status into consideration (49).

### **Relationship Between Perceived Disability and Depression**

***People with physical disabilities have elevated rates of both depressive symptomatology and major depression (91-93)***. In older adults (60+) there is a significant relationship between disability and more mental health measures (94). Older adults with severe disabilities experience higher levels of anxiety, suicidal ideation, and overall distress than those with moderate disabilities (94). Severity of perceived disability correlates with severity of psychiatric symptoms (95).

Also, ***disability is a frequent accompaniment of late-onset geriatric depression (96)***. Conversely, psychiatric disorders (affective and anxiety) are independently associated with both acute and chronic limitations in physical functioning (97). ***A recent longitudinal study has demonstrated a synchronous relationship between depression and disability (93)***. In rheumatoid arthritis patients, depression predicts functional status ratings (98). Finally, in CPP's with headache, depression and perceived disability are significantly associated (99). Thus, there is an association between disability perception and depression.

### **Relationship Between Chronic Pain and Depression**

***Within pain treatment facilities, the vast majority of CPP's are depressed (79, 100, 101)***. ***The reported point prevalence of major depression in the chronic pain population has varied between 1.5%-54.5%; the reported lifetime prevalence of major depression among CPP's varies between 20%-71% (79, 102)***. ***The reported prevalence of dysthymic has ranged from 0.0%-43.3% prevalence (79)***. Utilizing the Millon Clinical Multiaxial Inventory (MCMI), more than 50% of the CPP's had clinically elevated scores for depression (103). Adjustment Disorder with Depressed Mood has been reported in 28.3% of chronic pain patients (100). We have reported (97) that 56.2% of chronic pain patients had some form of

Mood Disorder (depression), as delineated by DSM-III criteria. ***Conversely, psychiatric out-patients who report chronic pain (14.8%), more frequently suffer from dysthymia and anxiety disorders (104), and individuals with two or more pain conditions are at elevated risk for a diagnosis of major depression (105).*** The differences in the reported prevalence of major depression within CPP's may be related to differences in pain center CPP selection criteria (100) and the lack of operationally-specific procedures for determining whether depressive symptoms are "due to" an organic factor, an exclusion criteria for DSM-III-R depressive disorders (106). It also appears that negative mood increases and becomes persistent (109, 110). ***A number of studies (111-114) have reported a significant relationship between the level or degrees of perceived pain and the degrees of depression and the relationship between depression, pain, and pain behavior (115). Commonly used measurements of depression such as the Beck Depression Inventory are compounded by pain symptomatology (114).*** Finally, level of pain appears to be more important in predicting level of depression than physical dependency (116).

Major differences between authors in the reported prevalence of depression in chronic pain patients are likely to arise from problems in attributing symptoms to depression versus physical illness per se. For example, a high percentage of chronic pain patients have a sleep disorder (117-119), and many gain weight because of inactivity (100). Such a situation has confounded the utilization of the DSM criteria for major depression in this group (100). Furthermore, CPP's may demonstrate a distinctive depressive syndrome (119). This is compatible with the observation that ***dysthymia and atypical depression are associated with greater severity of pain than major depression or Adjustment Disorder with Depressed Mood (120).***

### **Does the Depression Seen in Chronic Pain Patients Precede or Follow the Development of Chronic Pain?**

Although depression can precede pain as an independent phenomenon, ***there is empirical evidence that persistent pain causes depression.*** A recent longitudinal study (121) of rheumatoid arthritis patients, for example, found that pain severity predicted subsequent depression. The causal relationship between pain severity and depression occurred only after the first 12 months of the study. Zarkowska and Philips (109) have also determined that as pain persists, pain intensity becomes more closely related to a number of subjective and behavioral dimensions. In two recently published studies, Gamsa (122, 123) concluded that ***emotional disturbance in CPP's is more likely to be a consequence than a cause of chronic pain (122),*** though psychological events are risk factors in the development of chronic pain (123). Finally, ***a recent study (124) has demonstrated that CLEP patients had significantly higher lifetime rates of major depression, alcohol use disorders, and major anxiety disorder. However, the first episode of major depression generally followed pain onset.*** This current evidence indicates ***psychological events may be risk factors for development of chronic pain, but emotional disturbance is likely the result of chronic pain.***