



BEHAVIORAL MANIFESTATIONS OF PAIN IN THE DEMENTED ELDERLY

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INTRODUCTION

Behavioral disturbances have been evidenced to be an indicator of physical discomfort among the cognitively impaired elderly. In United States nursing homes, the prevalence of behavioral disturbances ranges between 64% and 83%. Behavioral disturbances often include physical combativeness, verbal aggression, agitation, socially disruptive behavior, withdrawal, and wandering. Levels of dementia have been found to have a strong association with behavioral dysfunction in long-term care. When long-term care residents progress to moderate and severe levels of dementia, their capacity to effectively communicate pain to caregivers becomes diminished. With progressing cognitive impairment, pain is often expressed in the form of behavioral disturbances, and may include agitation and other observable behaviors associated with discomfort. The purpose of the present study was to investigate the relationships between pain and behavioral disturbances among LTC residents who were experiencing differing levels of dementia.

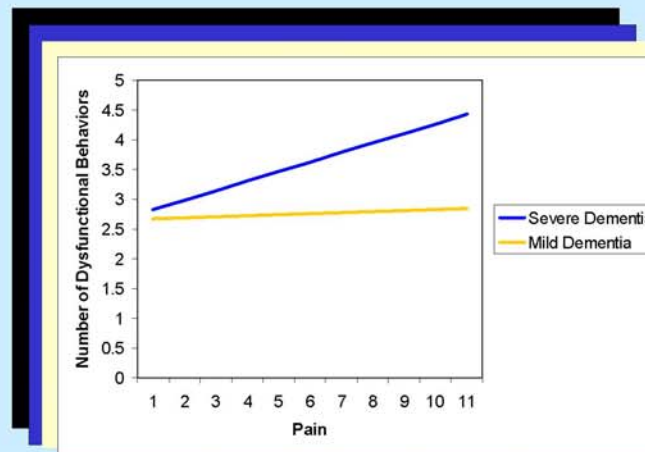
METHODS

Participants

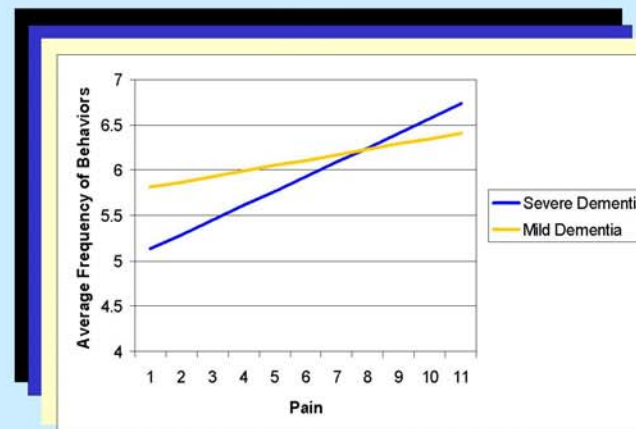
The study sample consisted of 277 patients residing in a total of 16 long-term care facilities in the Dallas, Texas area. This sample consisted of patient referrals from attending physicians to licensed clinical geropsychologists. The geropsychologists verbally administered the GMPI to each patient. Seventy-five percent of the sample consisted of females, and the average age was 82 years.

Procedure

The following instruments were administered to the residents in order to assess pain, cognitive impairment, and behavioral disturbances:
Cognitive Impairment: A composite score created from the scales of the Neurobehavioral Cognitive Status Examination (NCSE). Residents were categorized into three dementia categories (according to Reisberg and colleagues) for analytic purposes: Mild, Moderate, and Severe. The first 3 criteria represented our "Mild" category, the next 3 criteria represented our "Moderate" category, and the last two criteria represented our "Severe" category.
Pain: The Pain and Suffering subscale from the Geriatric Multidimensional Pain and Illness Inventory (GMPI). This subscale is rated on 10-point scale, with higher numbers indicate more pain.
Behavioral Disturbances: Residents were rated on the average intensity, frequency, duration, and number (count) of each of 19 possible behavioral categories from the Geriatric Level of Dysfunction Scale (GLDS). Examples included agitation, verbal aggression, withdrawal, and physical aggression.



Panel 1: Differences Between the Dementia Groups on the Relationship Between Pain and Number of Dysfunctional Behaviors



Panel 2: Differences Between the Dementia Groups on the Relationship Between Pain and Average Behavioral Frequency

ANALYSIS AND RESULTS

Comparison of regression slopes revealed that pain had a stronger influence on number of dysfunctional behaviors (see Panel 1) and average frequency of dysfunctional behaviors (see Panel 2) among the residents with severe dementia as compared to residents with mild dementia, $t(203)=3.36, p<.0001$ and $t(203)=3.49, p<.0001$, respectively). However, pain had a stronger influence on the average intensity of dysfunctional behaviors among the residents with mild dementia. Finally, pain had the same influence on average duration of dysfunctional behaviors, regardless of level of dementia.¹

The residents with severe dementia had significantly more intense, frequent and long-lasting physical combativeness and unsafe impulsive behaviors than did those residents with moderate or mild dementia ($F(2,76)=5.19, p<.01$ and $F(2,76)=9.85, p<.001$, respectively). The other behavioral categories did not differ between the three dementia groups.¹ Among only those residents documented to exhibit chronic pain symptoms without evidence of acute pain, those residents with severe dementia exhibited significantly more intense, frequent, and longer lasting Physical Combativeness, Agitation/Sundowning, Distressing Repetitive Behaviors, Delusional Behaviors, Socially Disruptive Behaviors, and Wandering than those residents with moderate or mild dementia.¹ However, we found the residents with mild dementia exhibited significantly more intense, frequent, and longer-lasting Unrealistic Demands and Dysfunctional Pain and Illness Behaviors than those residents with severe dementia.¹

DISCUSSION

Our findings indicate that pain experienced by residents with severe dementia is likely to be manifested in higher numbers of behavioral disturbances that tend to occur frequently. Thus, when LTC staff observe residents who, because of their stage of dementia are exhibiting a variety of frequent behavioral disturbances involving physical combativeness, agitation, distressing repetitive behaviors, delusional paranoia, social disruptive behaviors, and unsafe impulsive behaviors, the assessment and treatment of pain is necessary.

PROJECT SUPPORT

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¹ The complete manuscript with all tables, figures, and statistical results are available by contacting Daisha CIPHER at the email address above.