Method

Participants

- **N = 1,027**
- The current study used a subset of the data from the National Survey of Midlife Development in the United States (MIDUS-3), a national survey conducted in 2013 of non-institutionalized English-speaking US adults aged 25-74.
- All participants used in the study experienced some form of chronic pain.
- 41.9% were male and 58.1% were female (mean age=65.2 years, SD=11.2).
- Participants’ self-identified race was 89.2 % White, 3.3% Black and/or African American, 1.2% Native American or Alaskan Islander, 0.2% Asian, 0.1% Native Hawaiian or Pacific Islander, and 5.0% other.

Measures

- Chronic pain and its impact were assessed via questions about how much pain influenced general activity, mood, relations with other people, sleep, and enjoyment of life.
- To examine depression and anxiety, a structured clinical interview developed from the World Health Organization’s Composite International Diagnostic Interview (CIDI; Wittchen, 1994) was administered to each participant. Information regarding somatic amplification was collected and consisted of five items to assess each participant’s awareness of bodily symptoms.
- Social support was examined for the following relationships: family members (not including one’s spouse or partner), friends, spouse/partner, coworker, supervisor, and religion.
- Items related to doctor and mental health professional visits, meditation, prayer, and spiritual practices were also examined.

Results

- Three classes (Low Comorbidity, Medium Comorbidity, and High Comorbidity) were identified as best representing the profiles of pain, depression, anxiety, and somatic amplification in 1,027 adults with chronic pain.

<table>
<thead>
<tr>
<th>Model</th>
<th>Average</th>
<th>Low (%)</th>
<th>Medium (%)</th>
<th>High (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-class</td>
<td>-</td>
<td>41.1</td>
<td>41.2</td>
<td>17.7</td>
</tr>
<tr>
<td>2-class</td>
<td>96</td>
<td>38.2</td>
<td>41.2</td>
<td>20.6</td>
</tr>
<tr>
<td>3-class</td>
<td>89</td>
<td>31.6</td>
<td>36.7</td>
<td>31.7</td>
</tr>
<tr>
<td>4-class</td>
<td>98</td>
<td>36.3</td>
<td>40.8</td>
<td>22.9</td>
</tr>
</tbody>
</table>

The degree of comorbidity was significantly associated with the level of support from other people.
- The support from family was the lowest in the High Comorbidity class followed by the Medium Comorbidity class and then the Low Comorbidity class (all three Bonferroni-corrected p < .05).
- The participants in the High Comorbidity class reported significantly lower support from friends than those in the Medium and Low Comorbidity classes (both Bonferroni-corrected p < .05).
- Similar results were found for the support from spouse/partner (both Bonferroni-corrected p < .05).

The support from coworkers and supervisors was significantly greater for the Low Comorbidity class than for the Medium Comorbidity class (both Bonferroni-corrected p < .05).

The three classes were not different in terms of religious support (p = .10).

Three Latent Profiles Using Health Care Provider Visits and Various Social Support

Discussion

- Three classes based on level of comorbidity (low, medium, high) optimally explained the correlations among the participants’ pain, depression, anxiety, and somatic amplification.
- As expected, the frequency of medical doctor visits increased in parallel with level of comorbidity; however, there were no differences in the number of visits to mental health professionals or use of relaxation or meditation techniques. These findings suggest the possibility that individuals were not using a biopsychosocial approach to manage their conditions and warrants further attention.
- Support levels were generally highest with low comorbidity, but there was not a linear reduction in support across the classes as comorbidity level increased. It is postulated that verbal and/or non-verbal pain-related behaviors may help account for this specific finding.
- The overall support system results are consistent with existing research in this domain as they clearly depict an interaction between the individual with pain and the larger social context.
- The person-centered approach is especially pertinent for practitioners who need to acknowledge and treat the person rather than the symptoms.
- A major limitation of this study is that the sample was mostly Caucasian (89.2%). A wide range of sociocultural variables are known to impact the pain experience but interactions between these variables and the factors studied cannot be assessed with the population examined.