AUTHOR
Carney, Margaret M.; Kivlahan, Daniel R.

TITLE
Motivational Profiles of Veterans Seeking Substance Abuse Treatment: Profiles Based on Stages of Change.

PUB DATE
Nov 92

NOTE

PUB TYPE
Reports - Research/Technical (143)

EDRS PRICE
MF01/PC01 Plus Postage.

DESCRIPTORS
Change; Drug Addiction; Drug Rehabilitation; Models; Motivation; Profiles; Substance Abuse; Veterans

ABSTRACT
This study replicated an earlier study which identified five subtypes of outpatient alcoholics (Uninvolved, Participation, Ambivalent, Precontemplation, Contemplation) according to the stages of change model, extending the effort to 404 polydrug users at a Veterans Administration hospital. Subjects were administered a demographic questionnaire; the Alcohol Use Disorders Identification Test (AUDIT); modified drug, psychiatric and legal sections of the Addiction Severity Index (ASI); the Short Michigan Alcoholism Screening Test (SMAST); the Drug Abuse Screening Test (DAST); and the University of Rhode Island Change Assessment Scale (URICA). Scores on the URICA were subjected to a cluster analysis, yielding four of the five profiles identified in the earlier alcoholism study. Since four out of the five profiles were nearly identically replicated in a more diverse substance abuse population, there do appear to be reliable differences in motivation as measured by the URICA in individuals applying for a variety of addiction treatment services. Continued replication of the profiles in different settings may clarify the parameters of the Uninvolved cluster not replicated in the current study. Members of the Precontemplation cluster scored significantly lower on the SMAST, DAST, and AUDIT; were significantly more likely to have had legal pressure to enter treatment; and were more likely to be referred to outpatient or community services than to inpatient treatment. The results are interpreted as suggesting that differences between the four clusters are most meaningful between the Precontemplation and successive stages of change. (Author/NB)
Motivational Profiles of Veterans Seeking Substance Abuse Treatment: Profiles Based on Stages of Change

Margaret M. Carney
University of Washington

Daniel R. Kivlahan
University of Washington
Seattle Veterans Administration Medical Center

Abstract

This study replicated a study by DiClemente & Hughes (1990) which identified five subtypes of outpatient alcoholics according to the stages of change model. The current study extended this effort to 486 polydrug users at a veterans hospital. Scores on the URICA were subjected to a cluster analysis, yielding four of the five profiles identified by DiClemente & Hughes (1990). Members of the Precontemplation cluster scored significantly lower on the SMAST, DAST, AUDIT, were significantly more likely to have legal pressure to enter treatment, and were more likely referred to outpatient or community services than inpatient treatment. Results are interpreted as suggesting that differences between the four clusters are most meaningful between the Precontemplation and successive stages of change.

Introduction

The stages of change model (Prochaska, DiClemente & Norcross, 1992) has been widely employed in the research effort to improve treatment services for substance abuse. The model is meant to depict behavioral change as a series of four motivational stages through which a person can cycle, as shown in Figure 1. A cluster analysis of URICA scores conducted on outpatient alcoholics by DiClemente & Hughes (1990) yielded five motivational profiles. The current study extended this effort into a more diverse substance abuse population.

Methods

Subjects: 486 consecutive applications to the Seattle Veterans Administration Medical Center’s Addiction Treatment Center were examined between October 1, 1991 and April 1, 1992. Demographic comparisons with the DiClemente & Hughes (1990) study are shown in Table 1.

Measures: Three orally administered questionnaires included:
1) a demographic information sheet,
2) the Alcohol Use Disorders Identification Test (AUDIT),
3) a modified drug, psychiatric and legal sections of the Addiction Severity Index (ASI).

Three self report measures were:
1) Short Michigan Alcoholism Screening Test (SMAST),
2) the Drug Abuse Screening Test (DAST),
3) the Drug Abuse Screening Test (DAST),
3) the University of Rhode Island Change Assessment Scale (URICA).

Results

Of N=486 individuals, there were 404 usable protocols for the analysis.

Cluster analysis: A cluster analysis was performed in SPSSX using a hierarchical agglomerative method (complete linkage) with squared Euclidean distance as the similarity measure. Four of the five profiles reported by DiClemente & Hughes (1990) were replicated as shown in Figures 2-5.

Comparative analyses: Table 2 shows that the Precontemplation cluster scored significantly lower than the other clusters on the SMAST, AUDIT and DAST. Table 2 also shows that the Precontemplation cluster was less often referred to inpatient treatment, and more likely has legal pressure for treatment than the other three clusters.

Discussion

Since four out of the five profiles reported by DiClemente & Hughes (1990) were nearly identically replicated in a more diverse substance abuse population, there do appear to be reliable differences in motivation as measured by the URICA in individuals applying for a variety of addiction treatment services. Continued replication of the profiles in different settings may clarify the parameters of the Uninvolved cluster not replicated in the current study. This failure to replicate may have been a function of the local screening procedures, or these may have been individuals who failed to complete the questionnaires. Differences in symptom severity, while statistically significant, are actually quite small, perhaps implying that clinical presentation of symptoms does not meaningfully reflect differences in motivation. The higher presence of legal pressure for the Precontemplation cluster needs to be studied prospectively to determine whether outcome (e.g., relapse or attrition) can be predicted with this variable. Finally, the absence of differences in symptom severity among the other three clusters also points to the need for outcome data: do differences exist between these clusters that would warrant differential treatment? or is the relevant distinction simply between the Precontemplation and the other groups?

References


Stages of Change in Substance Abuse and Dependence

Prochaska & DiClemente (1982)

Precontemplation Stage

Contemplation Stage

Action Stage

Maintenance of Recovery Stage

"I don't have any problems that need changing."

Alpha = .80

"I might want to change some things about myself."

Alpha = .84

"At times my problem is difficult, but I'm working on it."

Alpha = .82

"I need a boost right now to help me maintain the changes I've already made."

Alpha = .83

FIGURE 1
## Demographics

<table>
<thead>
<tr>
<th></th>
<th>Carney &amp; Kivlahan</th>
<th>DiClemente &amp; Hughes (1990)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AGE</strong></td>
<td>$\bar{x} = 42$</td>
<td>$\bar{x} = 33$</td>
</tr>
<tr>
<td><strong>SEX</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>100%</td>
<td>65%</td>
</tr>
<tr>
<td>Female</td>
<td>0%</td>
<td>35%</td>
</tr>
<tr>
<td><strong>RACE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>73.3%</td>
<td>79%</td>
</tr>
<tr>
<td>African-American</td>
<td>20.7%</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>5.2%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>EMPLOYMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currently Employed</td>
<td>21.3%</td>
<td>40%</td>
</tr>
<tr>
<td><strong>MARITAL STATUS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separated/Divorced or Widowed</td>
<td>60.9%</td>
<td>42%</td>
</tr>
<tr>
<td>Single</td>
<td>21.3%</td>
<td>32%</td>
</tr>
<tr>
<td>Married</td>
<td>17.3%</td>
<td>25%</td>
</tr>
<tr>
<td><strong>LIVING SITUATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family or Friends</td>
<td>55.5%</td>
<td>N/A</td>
</tr>
<tr>
<td>Alone</td>
<td>23.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>Unstable/Homeless/Controlled</td>
<td>21.1%</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>CURRENT LEGAL ISSUES</strong></td>
<td></td>
<td>41.1%</td>
</tr>
<tr>
<td><strong>PREVIOUS PSYCHIATRIC TREATMENT</strong></td>
<td>44.2%</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>PERIOD OF SERVICE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>56.2%</td>
<td>N/A</td>
</tr>
<tr>
<td>Post-Vietnam</td>
<td>20.9%</td>
<td>N/A</td>
</tr>
<tr>
<td>Korean Era</td>
<td>17.2%</td>
<td>N/A</td>
</tr>
<tr>
<td>World War II</td>
<td>4.9%</td>
<td>N/A</td>
</tr>
<tr>
<td>Combat Experience in Vietnam</td>
<td>33.5%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*TABLE 1*
Participation Cluster

Z scores

Precontemplation  Contemplation  Action  Maintenance

n=125
30.9%

Carney & Kivlahan
1992

n=51
22.8%

DiClemente & Hughes
(1990)
Ambivalent Cluster

Z scores

n=90
22.3%
Carney & Kivlahan
1992

Precontemplation  Contemplation  Action  Maintenance

Z scores

n=30
13.4%
DiClemente & Hughes
(1990)

Precontemplation  Contemplation  Action  Maintenance

FIGURE 3
Precontemplation Cluster

![Graph showing Z scores for precontemplation cluster with n=120 and 29.7%](image1)

![Graph showing Z scores for precontemplation cluster with n=63 and 28.1%](image2)

Carney & Kivlahan 1992

DiClemente & Hughes (1990)
Contemplation Cluster

Z scores

n=69
17.1%

Carney & Kivlahan
1992

Precontemplation Contemplation Action Maintenance

Z scores

n=53
23.7%

DiClemente & Hughes
(1990)

Precontemplation Contemplation Action Maintenance

June 1992
### Pretreatment Differences Across Clusters

<table>
<thead>
<tr>
<th>Participation</th>
<th>Ambivalent</th>
<th>Precontemplation</th>
<th>Contemplation</th>
<th>Univariate F</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMAST</td>
<td>9.3</td>
<td>9.0</td>
<td>7.5</td>
<td>9.2</td>
</tr>
<tr>
<td>AUDIT</td>
<td>25.0</td>
<td>24.3</td>
<td>20.3</td>
<td>24.3</td>
</tr>
<tr>
<td>DAST</td>
<td>7.5</td>
<td>7.1</td>
<td>5.6</td>
<td>7.0</td>
</tr>
</tbody>
</table>

### Treatment Recommendations

<table>
<thead>
<tr>
<th>Participation</th>
<th>Ambivalent</th>
<th>Precontemplation</th>
<th>Contemplation</th>
<th>Univariate F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient</td>
<td>73.6%</td>
<td>64.4%</td>
<td>51.7%</td>
<td>73.9%</td>
</tr>
<tr>
<td>Outpatient</td>
<td>18.4%</td>
<td>18.9%</td>
<td>25.8%</td>
<td>20.3%</td>
</tr>
<tr>
<td>Other</td>
<td>8.0%</td>
<td>16.7%</td>
<td>22.5%</td>
<td>5.8%</td>
</tr>
</tbody>
</table>

### Current Legal Issues

<table>
<thead>
<tr>
<th>Participation</th>
<th>Ambivalent</th>
<th>Precontemplation</th>
<th>Contemplation</th>
<th>Univariate F</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>23.5%</td>
<td>23.5%</td>
<td>34.6%</td>
<td>18.5%</td>
</tr>
<tr>
<td>NO</td>
<td>36.1%</td>
<td>21.4%</td>
<td>26.1%</td>
<td>16.4%</td>
</tr>
</tbody>
</table>