Marital Status and Highest-Grade Achieved: Contribution to Alcohol Screening Scores in Male Veterans

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Marital Status and Highest-Grade Achieved: Contribution to Alcohol Screening Scores in Male Veterans

AN HONORS THESIS

College of St. Benedict/St. John’s University

In Partial Fulfillment of the Requirements for Distinction

in the Department of Nursing

by

Marit P. Fraune

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Advisor: Kathleen Twohy

St. Cloud VAHCS

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PROJECT TITLE: Marital Status and Highest-Grade Achieved: Contribution to Alcohol Screening Scores in Male Veterans

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Abstract

Project Title: Marital Status and Highest-Grade Achieved: Contribution to Alcohol Screening Scores in Male Veterans

Background: Alcohol is frequently used among active military groups and veterans. There is no research regarding the effects of marital status and highest grade achieved on AUDIT-C screening scores for older male veterans.

Objective: This study aims to determine whether marital status or highest grade achieved significantly impacts AUDIT-C screening scores for older male veterans.

Method: This study used existing medical record data from the VAHS-St. Cloud. IRB approval through the VAHS provided protection of human subjects. Data were analyzed with Chi-square tests.

Results: Marital status did not produce statistically significant impacts on the AUDIT-C screening scores for older male veterans. Small sample size and missing data may have contributed to the lack of statistical significance between highest-grade achieved and AUDIT-C screening scores. Recommendations include regular AUDIT-C screening and the addition of demographic factors relevant to health (e.g. education level) in the health record.
Marital Status and Highest-Grade Achieved: Contribution to Alcohol Screening Scores in Male Veterans

**Introduction**

Alcohol consumption occurs in society as a means to celebrate, relax, or self-medicate. A problem occurs when alcohol is consumed too frequently or in large quantities. Heavy drinking, a form of excessive alcohol consumption includes greater than 15 drinks per week, on average, for a male and greater than eight drinks per week, on average, for a female. Binge drinking, another form of excessive alcohol consumption, is defined as five or more drinks on one occasion for a male and four or more drinks on one occasion for a female. Each year in the United States, 88,000 deaths occur from excessive alcohol use (Centers for Disease Control and Prevention, 2014). There are various risk factors associated with excessive alcohol consumption including “reduced inhibitions, slurred speech, motor impairment, confusion, memory/concentration problems, coma, and death” (National Institute of Alcohol Abuse and Alcoholism, NIAAA, 2013, para 7). These risk factors associated with excessive alcohol consumption contribute to its status as the third leading cause of lifestyle-related death in the United States (CDC, 2014).

Two population groups in U.S. society with high rates of excessive alcohol consumption are active military personnel and veterans. According to the National Council on Alcoholism and Drug Dependence (NCADD), alcohol consumption by active military and veterans is a principal health problem in the United States (2013). In regards to active military personnel, “one in eight troops returning from Iraq and Afghanistan from 2006 to 2008 were referred for counseling for alcohol problems” (NCADD, 2013, para. 5). Furthermore, in the National Household Survey on Drug Abuse, seven percent of male veterans reported heavy drinking and 23 percent reported
binge drinking. As a comparison, two percent of females veterans reported heavy drinking and 14 percent reported binge drinking (NCADD, 2013). While there is significant data collected on young and middle aged veterans, little information exists on veterans 65 and older. This study examines the relationship between marital status and alcohol use among veterans older than 65 years of age and the relationship between highest-grade achieved and alcohol use among veterans older than 65 years of age.

**Literature Review**

There is limited research about the use of alcohol in older adult veterans and non-existent research regarding the direct relationship between marital status, highest-grade achieved, and alcohol use in veterans. Current research focuses on active duty military personnel because of the war in the Middle East. It is vital researchers focus not only on those who are currently fighting but also older veterans. Older veterans can provide researchers with information about the long-term consequences of war including the detrimental effects that may occur (and/or continue) much later in a veteran’s life concerning alcohol abuse.

It is important to concentrate on older veterans because of the significant effects excessive alcohol consumption has on an elderly body. According to the 2011 *National Survey on Drug Use and Health*, 40.3 percent of adults’ ages 65 and older drink alcohol (2012). This can cause a variety of complications because of the changes in body composition in older adults and can be complicated by an increase in medication use. Weathermon and Crabb (1999) found that alcohol interferes with the metabolism of medications because the liver detoxifies most medications and alcohol. In addition, alcohol may alter the effects of medications because of potential interactions in the nervous system. This can lead to harmful effects for older adults, such as an increase in sedation, if they are mixing medications with alcohol (Weathermon and
Crabb, 1999). Therefore, the NIAAA (2013) gives specific guidelines for those 65 years and older that do not take any medications. They should limit themselves to three drinks on any one day and less than seven drinks in one week. Those who do take medication must follow the guidelines presented to them from their physician. It is crucial to study alcohol consumption in the older population because of the many harmful effects it may cause to their bodies.

Multiple research studies indicate that active military personnel and veterans ingest excessive amounts of alcohol. Jacobson et. al. (2008) report that those in the Army Reserve, National Guard, and younger military personal are at an increased risk of alcohol-related problems. This links to the stressful events they encounter while they are in combat that stays with them for the rest of their lives. Stahre, Brewer, Fonseca, and Naimi (2009) reported that 43.2% of active-duty military personnel surveyed had engaged in at least one episode of binge drinking in the last 30 days. Of those who reported binge drinking in the last month, 25.2% were older than 35. Age does not discriminate between military personnel who binge drink. Bohnert et. al., (2012) found that veterans older than 61 were more likely to consume alcohol in the past 30 days than were non-veterans of the same age. They were also more likely to drink heavily. Veterans between the ages of 61 and 70 were significantly more likely to recount binge drinking than were non-veterans the same age. This research suggests that past military involvement may lead to future or continued alcohol use.

There is an increasing amount of data on alcohol use among veterans but information related to older adult veterans, marital status, and highest-grade achieved in school was not located. It is important to investigate this topic to inform current military personnel and health care providers about their chances of using alcohol in a negative, uncontrolled, or self-medicating way. This research is also important so physicians and other medical team members
can potentially use marital status and highest-grade achieved as risk factors for alcohol
dependence or possibly as an avenue to enhance treatment success. For instance, couples
counseling can be suggested if the marital relationship is strong or educational methodologies
may be more effective for veterans who have some college education. Identifying potential risk
factors can be the first step in preventing or minimizing alcohol use/misuse.

There are various benefits for those who are married into their elder years. Barbara &
Weinick (1998) state that marriage helps couples engage in more positive behaviors than those
who are widowed. Such behaviors include eating breakfast, participating in daily activity,
wearing seatbelts, and not smoking. Men experience the greatest benefits of marriage in their
elderly years because their wives often press them to concentrate on their health more than they
would if they were widowed or living alone. This research shows that those who are elderly and
married are often more likely to participate in positive behaviors.

The American Association for Marriage and Family Therapy (AAMFT) 2013 states that
couples where one member over consumes alcohol are discontent and miserable. They are more
discontent than couples that receive marital counseling for other problems. AAMFT suggests
that as a person turns to alcohol more and more, it leaves spouses isolated from each other. The
partners begin to create emotional distance from each other and when they do interact, it is
aggressive and can be violent. Overall, AAMFT teaches its clients that alcohol abuse can have an
extremely negative effect on a family (including married couples) and damage the relationship.

Research suggests a strong correlation between alcohol abuse and highest-grade achieved
in school among the general population. According to Crum, Helzer and Anthony (1993) persons
who did not complete high school were greater than six times more likely to abuse alcohol than
their counterparts with a college degree were. This research suggests that alcohol abuse may also
relate to the age of the individuals, mental illnesses, lack of knowledge about the effects of harmful substances, or other unstated causes. Furthermore, this study suggests the need for more research to decipher why these individuals turn to alcohol. This research indicates that those with a lower education level may have a higher chance of abusing alcohol.

**Research Questions:**

1. What is the relationship between alcohol use and marital status among male veterans 65 and older?
2. What is the relationship between excessive alcohol use and highest-grade achieved among male veterans 65 and older?

**Methods**

**Overview of Main (Larger) Study: Study Design and Methods**

Since the present study is a segment of a larger one entitled, *Comparison of health and illness patterns of community-dwelling veterans with those living in institutional settings* (unpublished), a bit of information about the larger study can aid the readers’ understanding. The study design was a repeated measure, retrospective descriptive study. Arrangements were made for data collection with the director of research at the St. Cloud VAHS, the Decision Support System (DSS), the primary investigator (required to be a VA employee), and faculty co-investigators. Beginning December 31, 2007, 1200 inpatient and outpatient records were screened for the inclusion criteria (ICD-9 codes for depression, alcohol use/abuse, and falls). The initial screening extracted 98 inpatient cases and 645 outpatient cases. Eighteen additional inpatient cases were added in summer 2012. Since the study protocol called for 200 outpatients, PAWS’s 22 random sample generator reduced the outpatient group to 200. Preliminary data were downloaded to excel files, cleaned, and formatted. Many requested data elements were not
electronically extractable so manual extraction from the Computerized Patient Record Systems (CPRS—the VA’s electronic medical record) for selected data (e.g. education and some screening scores) produced more complete data. The records were then de-identified creating a preliminary database for analysis.

A number of protections are required for accessing Personal Health Information (PHI) of veterans receiving health services from the VAHS. The primary and co-investigators participated in the extensive research training required by the VAHS. The combined Minneapolis/St. Cloud Institutional Review Board (IRB) reviewed and exempted the research proposal, as the data were all retrospective. The primary and co-investigators followed the requirements for human subjects’ protection throughout the research project. The student co-investigators did not have access to files containing raw data; they did have access to output files following statistical analysis. The IRB at the College of St. Benedict/St. John’s University also exempted the study, due to the VAHS IRB approval.

All data files were stored in a secured, password-protected electronic folder, with the assigned security group on a shared research drive at the VAHS-St. Cloud. The director of research, the primary investigator, and faculty co-investigators could access these files. The drive is inaccessible from off-site locations. Analyses for this study were conducted using PAWS-22. Methods included frequencies and Chi-square for categorical variables.

The most widely used alcohol-screening test for older adult male veterans is the Alcohol Use Disorders Identification Test—Consumption [AUDIT-C]. This screening tool is for physicians to use to help identify people who may benefit from alcohol cessation classes. It screens for individuals who are at risk for hazardous drinking. The AUDIT-C is a short, self-report- three-question survey (Babor, Higgins-Biddle, Saunders, Monteiro, 2001). The AUDIT-C
is reliable and valid. It “demonstrates sensitivities and specificities comparable, and typically superior, to those of other self-report screening measures” (Reinert, & Allen, 2002, p. 272).

Providers at the VAHA-St. Cloud use the AUDIT-C screening tool to collect veteran alcohol-use information.

Table 1 displays the variables studied for the larger study, *Comparison of health and illness patterns of community-dwelling veterans with those living in institutional settings* (unpublished).

<table>
<thead>
<tr>
<th>Table 1.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables Studied</td>
</tr>
<tr>
<td>Inclusion Criteria</td>
</tr>
<tr>
<td>Screen 1200 Random sample n=400 Aged ≥ 65 • n= 200 inpatient (VAHS hospital, LTC or assisted living); • n= 200 outpatient (community-dwelling) ICD-9 Diagnostic codes Depression (296.2, 296.3) Alcohol use/abuse (303, 305.1) Risk for Falls (V15.88) Index Date: 1/1/07</td>
</tr>
</tbody>
</table>
Sample

The larger study had a total sample of 316 veterans (Table 1). However, since this study was limited to those who had ICD-9 Diagnostic Codes of Alcohol use/abuse the sample size was 72, all of which were male. The variables of interest for this study are veterans with alcohol use/abuse diagnostic codes, marital status, and highest-grade achieved. These data covered the years 2007, 2008, 2009, and 2010; data for some participants crossed all four years; all crossed at least two years.

Results

Statistical analyses first established the comparability between the original classifications of inpatient versus outpatient groups in the Main study above. Table 2 presents the results of the hypothesis testing that there were no differences between inpatient and outpatient groups for each of the four years. The null hypothesis is retained in each of the four years so the inpatient group and outpatient groups were combined for all subsequent analyses.

<table>
<thead>
<tr>
<th>Table 2. Hypothesis Test Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null Hypothesis</td>
</tr>
<tr>
<td>The distribution of 2007 AUDIT-C screen is the same across categories of Group.</td>
</tr>
<tr>
<td>The distribution of 2008 AUDIT-C screen is the same across categories of Group.</td>
</tr>
<tr>
<td>The distribution of 2009 AUDIT-C screen is the same across categories of Group.</td>
</tr>
<tr>
<td>The distribution of 2010 AUDIT-C screen is the same across categories of Group.</td>
</tr>
</tbody>
</table>

Asymptotic significances are displayed. The significance level is .05.
Research question 1: What is the relationship between alcohol use and marital status among male veterans 65 and older?

Four analyses, one for each year of the study, answer Research question 1. Tables 3, 4, 5, and 6 present Chi-Square analyses for the relationship between marital status and alcohol screening scores from 2007 to 2010. The codes for marital status were “Divorced” “Married”, “Never married” “Single”, and “Widowed”. Table 3 displays data from the 32 veterans in 2007.

Table 3.
Chi-Square Tests Marital Status by 2007 AUDIT-C

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>33.916a</td>
<td>28</td>
<td>.204</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>30.987</td>
<td>28</td>
<td>.318</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 38 cells (95.0%) have expected count less than 5. The minimum expected count is .03.

Table 4 depicts Chi-Square results for the 47 veterans in 2008.

Table 4.
Chi-Square Tests for Marital Status and 2008 AUDIT-C Scores

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>28.285a</td>
<td>36</td>
<td>.817</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>26.095</td>
<td>36</td>
<td>.888</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>47</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 48 cells (96.0%) have expected count less than 5. The minimum expected count is .02.
Chi-Square results for the 42 veterans in 2009 are below in Table 5.

Table 5.
Chi-Square Tests Marital Status and 2009 AUDIT-C Screening Scores

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>37.717a</td>
<td>30</td>
<td>.157</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>31.554</td>
<td>30</td>
<td>.389</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>42</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 42 cells (95.5%) have expected count less than 5. The minimum expected count is .07.

The Chi-Square results for the 40 veterans in 2010 are in Table 6.

Table 6.
Chi-Square Tests Marital Status and 2010 AUDIT-C Screening

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>42.798a</td>
<td>36</td>
<td>.202</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>33.609</td>
<td>36</td>
<td>.583</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 48 cells (96.0%) have expected count less than 5. The minimum expected count is .03.

All of the tables have positive correlations, however, none of the Chi-Square Tests in Tables 3, 4, 5, or 6 demonstrated statistical significance. Therefore, there is no relationship between marital status and AUDIT-C alcohol screening scores.

Research Question 2: What is the relationship between excessive alcohol use and highest-grade achieved among male veterans 65 and older?

Four analyses, one for each year of the study, answer Research question 2. Tables 7, 8, 9, and 10 present Chi-Square analyses about the relationship between highest-grade achieved in
school and annual alcohol screening scores from 2007 to 2010. The veterans freely chose the grade they had last completed. The Chi-Square results for the six veterans that had both highest-grade achieved and AUDIT-C screening scores in 2007 are in Table 7.

Table 7.

<table>
<thead>
<tr>
<th>Chi-Square Tests Highest-Grade Achieved by 2007 AUDIT-C</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.600a</td>
<td>2</td>
<td>.741</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.908</td>
<td>2</td>
<td>.635</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.034</td>
<td>1</td>
<td>.853</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 6 cells (100.0%) have expected count less than 5. The minimum expected count is .17.

Table 8 displays data from the 15 veterans that had both highest-grade achieved and AUDIT-C screening scores in 2008.

Table 8.

<table>
<thead>
<tr>
<th>Chi-Square Tests Highest Grade-Achieved by 2008 AUDIT-C</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>47.755a</td>
<td>36</td>
<td>.091</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>28.482</td>
<td>36</td>
<td>.810</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.575</td>
<td>1</td>
<td>.210</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 49 cells (100.0%) have expected count less than 5. The minimum expected count is .07.
Table 9 displays data from 12 veterans that had both highest-grade achieved and AUDIT-C screening scores in 2009.

Table 9.

Chi-Square Tests Highest Grade-Achieved by 2009 AUDIT-C

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>28.000a</td>
<td>25</td>
<td>.308</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>17.682</td>
<td>25</td>
<td>.856</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.504</td>
<td>1</td>
<td>.478</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 36 cells (100.0%) have expected count less than 5. The minimum expected count is .08.

Table 10 displays data from 14 veterans that had both highest-grade achieved and AUDIT-C screening scores in 2010.

Table 10.

Chi-Square Tests Highest-Grade Achieved by 2010 AUDIT-C

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>34.071a</td>
<td>25</td>
<td>.106</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>24.953</td>
<td>25</td>
<td>.465</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.202</td>
<td>1</td>
<td>.273</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 36 cells (100.0%) have expected count less than 5. The minimum expected count is .07.

Similar, to the previous set of tables, tables 7, 8, 9, and 10 show positive correlations but no statistical significance. Therefore, there is no relationship between highest-grade achieved and AUDIT-C alcohol screening scores.

Limitations

There are many limitations to this study. The greatest limitation is that there were not enough veterans screened for alcohol use and demographic variables. For example in the Chi-
Square Tests of highest-grade Achieved by AUDIT-C, there was an average of 11.75 valid screens per year. This could be due to a multitude of different reasons including absence of screening by the VAHS- St. Cloud or unwillingness by veterans to respond. The lack of available data decreased the reliability of this study.

Another limitation of this study is the difficulty of collecting and extracting data from the clinical records at the VAHS- St. Cloud. Aside from collecting data electronically, there was a significant amount of hand capturing of data for this study. This could increase the chance of making data entry mistakes and incomplete or missing data, leading to inaccurate study results.

Conclusions and Recommendations

There are no statistically significant results from the Chi-Square Tests between marital status and AUDIT-C screening. Therefore, there are no recommendations for clinical practice related to Research Question 1.

There are also no statistically significant results from the Chi-Square Tests between highest-grade achieved and AUDIT-C screening. It is important to note that multiple results were close to being statistically significant, especially given the small numbers in each analysis. For example, Table 8 has a Pearson Chi-Square significance of .091. Given the small sample size of 15 veterans in 2008, this data may be statistically significant if more data were available. There are no recommendations for current clinical practice from Research Question 2, however, because that data was not statistically significant.

A practice recommendation is to increase alcohol screening for veterans at the VAHS-St. Cloud. Each patient should receive the AUDIT-C screening annually and furnish current demographic questions asked at each visit as some things can change such as a marital status. It is important to screen every veteran patient to increase researchers’ ability to find trends that
health care professionals can use to maximize care for veterans. This is important because the literature suggests alcohol use/abuse is a problem in this population. If marital status or highest-degree achieved positively influenced the scores of an AUDIT-C, health care providers could give at-risk patients additional resources to ensure they do not turn to excessive alcohol use as a means of coping. Health care providers could also engage the male veteran’s spouse (veteran permitting) in the discussion about potential alcohol abuse issues if marital status becomes significant in a larger sample.

Another recommendation from this research is to change the electronic medical record so that data is more easily extractable. The complexity of the electronic medical record limits the researcher’s ability to capture all the necessary data. The hand capturing of data in this study was tedious and prone to error. This study recommends a new electronic medical record for the VAHS-St. Cloud to increase the ability to use data from the patients’ records effectively to gather pertinent research data and improve care.
Reference List

American Association for Marriage and Family Therapy (AAMFT). (2013). Substance abuse and intimate relationships.

http://www.aamft.org/imis15/Content/Consumer_Updates/Substance_Abuse_and_Intimate_Relationships.aspx


*World Health Organization- Department of Mental Health and Substance Dependence, 2nd ed.* http://whqlibdoc.who.int/hq/2001/WHO_MSD_MSB_01.6a.pdf


http://search.proquest.com/docview/210940879?accountid=14070


http://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm


*JAMA: Journal Of The American Medical Association, 300*(6), 663-675.


