

PATTERNS OF ALCOHOL USE AND ANTIDEPRESSANT MEDICATION TAKING BEHAVIORS B.

MCGILlicuddy³

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Background

- Depression frequently co-occurs with alcohol use disorders.¹
- Depression and alcohol use are common problems seen in VA primary care.²
- These interactive disorders can cause further health problems resulting in increased utilization of health resources, prolonged hospitalization, decreased quality of life and increased risk for suicide.³

¹ Grant, B.F., Stinson, F.S., Dawson, D.A., Chou, S.P., Dufour, M.C., Compton, W., Pickering, R.P., & Kaplan, K. (2004). *Prevalence and Co-occurrence of Substance Use Disorders and Independent Mood and Anxiety Disorders*. 61(8), 807-816.

² Funderburk, J.S., Sugarman, M.S., Maisto, S.A., Ouimette, P., Schohn, M., Lantinga, L.J., Wray, L.O., Baski, S.L., Nelson, B., Coolhart, D., & Strutynski, B.S. (2010). The description and evaluation of the implementation of an integrated healthcare model. *Families, Systems, and Health*. 28(2), 130-145.

³ Grant, B.F., & Hasin, D.S. (1999). Suicidal ideation among the United States drinking population: results from the National Longitudinal Alcohol Epidemiologic Survey. *Journal of Studies on Alcohol and Drugs*. 60(3), 422-429.

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Background

- There is conclusive evidence for the efficacy of antidepressants in treating depression⁴ and favorable effects on reducing drinking.⁵
- Lower antidepressant adherence has been identified in patients with comorbid alcohol abuse among privately insured patients⁶ and Veterans.⁷

⁴Williams, J. W., Mulrow, C., D., Chiquette, E., Hitchcock, P., Aguilar, C., & Cornell, J. (2000). A Systematic Review of Newer Pharmacotherapies for Depression in Adults: Evidence Report Summary. *Annals of Internal Medicine*, 132(9), 743-756.

⁵Torrens, M., Fonseca, F., Mateu, G., & Farré, M. (2005). Efficacy of antidepressants in substance use disorders with and without comorbid depression: a systematic review and meta-analysis. *Drug and Alcohol Dependence*, 78(1), 1-22.

⁶Akincigil, A., Bowblis, J. R., Levin, C., Walkup, J. T., Jan, S., & Crystal, S. (2007). Adherence to antidepressant treatment among privately insured patients diagnosed with depression. *Medical Care*, 45(4), 363-369.

⁷Ziven, K., Gancoczy, D., Pfeiffer, P.N., Miller, E.M., & Valenstein, M. (2009). Antidepressant adherence after psychiatric hospitalization among patients with depression. *Administration and Policy in Mental Health and Mental Health Services Research*, 36(6), 405-415.

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Purpose & Long-term Objective

To determine the prevalence of four possible combinations of alcohol use and medication taking behaviors: (1) consuming alcohol and not taking medication, (2) consuming alcohol and taking medication, (3) not consuming alcohol and not taking medication, and (4) not consuming alcohol and taking medication.

To develop tailored interventions for patients in primary care settings who are not taking antidepressants as directed, consuming alcohol, singly or in combination. These interventions will be developed as a manual for members of the interprofessional patient aligned care team (PACT).

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Design, Setting, Sample

- Descriptive correlational study
- VA Western New York Healthcare System
- Sample: Veterans in primary care
 - Positive screen for depression (PHQ-2 score > 2)
 - Any amount of alcohol use (AUDIT-C score >0)
 - On prescribed antidepressant medication

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Measures

- **Alcohol Use Disorders Identification Test (AUDIT-C)** - used to screen for hazardous alcohol use. The 3-item measure is scored based on five Likert-style response alternatives. A range of 0-4 points is possible for each item, which assesses alcohol use over the past year; total scores range from 0-12. A score >0 indicates any amount of alcohol use.
- **Patient Health Questionnaire-2** - a 2-item standardized screening tool; used to assess the severity of depression. Ratings are based on the frequency of symptom experiences ranging from 0 (not at all) to 3 (nearly every day). Scores range from 0 to 6 with > 2 indicating need for further assessment of depression.

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Measures

- **Demographic Survey** - used to collect data on age, sex, ethnicity/race, education level, income, marital status, distance from home to primary provider, variables associated with medication non-adherence.
- **Timeline Follow Back** - for self report retrospective recall of alcohol intake and medication taking behavior; a demonstrated to have excellent validity [alcohol] when compared with verifiable events⁸ and reasonably good agreement (kappa=.31) with validated measure for medication adherence.⁹

⁸ Sobell, L.C. & Sobell, M.B. (1992) Timeline Followback: A technique for assessing self-reported ethanol consumption. In J. Allen & R.Z. Litten, Eds). *Measuring alcohol consumption: Psychosocial and biological methods*. Totowa, NJ: Human Press, pp. 41-72.

⁹ Dunster, A., Chang, Y., Finnell, D.S., & Wray, L. (2009). *A pilot study of using Time Line Follow Back among older adults with prescription psychotherapeutic drug misuse*. Poster presented at the Eastern Nursing Research Society, Boston, MA.

RESULTS

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Demographic & Clinical Characteristics (n=20)

Demographics	Mean (S.D.) / %	Antidepressant Prescribed	N
Age (years)	50 (10)	Selective Serotonin Reuptake Inhibitor (SSRI)	12
Male gender	80%		
Race		Noradrenergic and Specific Serotonin Antidepressant (NaSSA)	5
White	60%		
Black	40%	Norepinephrine and Dopamine Reuptake Inhibitor	3
Marital status			
Married	60%		
Single, widowed, divorced	40%		
Employment status			
Employed	50%		
Unemployed	30%		
Retired, volunteer	20%		

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Alcohol Consumption & Medication Adherence

	Range	Mean	SD
# of drinking days	0 to 30 days	10.5	9.6
% of drinking days	0 to 100 %	34.9	31.9
Heavy Drinking Days	0 to 30 days	4.6	7.3
% Heavy Drinking Days	0 to 100%	16.5	24.3
# of Medication Adherence Days	0 to 30	24.5	10.6

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What is the pattern of alcohol consumption over 30 days for a Veteran on prescribed antidepressant medication?

SUN	MON	TUES	WED	TH	FRI	SAT
→	⊘	⊘	⊘	⊘	⊘	⊘
⊘	☑	☑	⊘	⊘	⊘	⊘
⊘	☑	☑	☑	⊘	⊘	⊘
⊘	⊘	⊘	☑	☑	⊘	⊘
⊘	⊘	⊘	←			

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What is the pattern of medication taking over 30 days for a Veteran who reports drinking any amount of alcohol?

SUN	MON	TUES	WED	TH	FRI	SAT
→	⊘	⊘	☪	☪	☪	☪
☪	⊘	⊘	⊘	☪	☪	☪
☪	⊘	⊘	⊘	☪	☪	☪
☪	⊘	⊘	⊘	☪	☪	☪
☪	⊘	⊘	←			

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What is the pattern of alcohol consumption and antidepressant medication taking over 30 days for a Veteran?

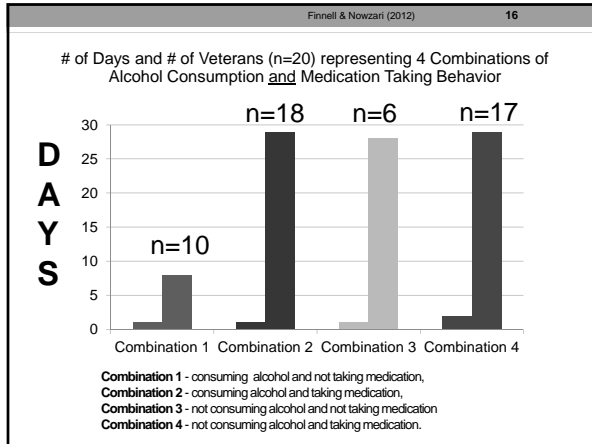
SUN	MON	TUES	WED	TH	FRI	SAT
→	3	3	4	4	4	4
4	1	1	3	4	4	4
4	1	1	1	4	4	4
4	3	3	1	2	4	4
4	3	3	←			

Combination 1 – consuming alcohol and not taking medication
Combination 2 – consuming alcohol and taking medication
Combination 3 – not consuming alcohol and not taking medication
Combination 4 – not consuming alcohol and taking medication

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What is the pattern of alcohol consumption and antidepressant medication taking over 30 days for a Veteran?

Combination 1 – consuming alcohol and not taking medication
Combination 2 – consuming alcohol and taking medication
Combination 3 – not consuming alcohol and not taking medication
Combination 4 – not consuming alcohol and taking medication



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Conclusions

- This sample of Veterans reported a high number of medication adherent days whether drinking or abstaining from alcohol. This finding is likely reflective of the low risk alcohol severity and moderate depression.
- Alcohol use and medication taking are dynamic behaviors that may vary from day to day. Researchers and clinicians typically assess these two behaviors separately, reporting rates of alcohol use and medication taking behaviors for a *specific time period*.
- Examining these behaviors in tandem allows for a greater understanding of the scope of these problems for individuals taking antidepressants and drinking alcohol.

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Implications

- The TLFB could be utilized to provide feedback to individual, engage him/her in developing behavior change management plan, monitor and evaluate progress toward optimal goal – reduction of alcohol consumption and taking medication consistently as prescribed.
- Further research is needed to assess efficacy of Measured Steps,¹⁰ a program designed to promote medication taking and substance use reduction.

¹⁰ Finnell, D.S., McGillicuddy, N.B., Lucke, J.F., Bormann, J.E., & Maisto, S.A. (2012, June 25). *Feasibility and Acceptability of a Program to Promote Medication Taking and Substance Use Reduction, Step-by-Step*. Annual Meeting of the Research Society on Alcoholism, San Francisco, CA.