INTERVENTION IN ALCOHOLIC PATIENTS BY PRIMARY CARE NURSES

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ABSTRACT

Introduction: most people with alcohol use disorders do not undergo treatment. Objective: To evaluate the care of patients with alcohol use disorders by primary care (PC) nurses. Methods: A randomized stimulus trial was conducted. It was conducted in 3 primary care practices over 12 months. Results: The mean percentage of AUD decreased from 61 % at baseline to 39 % and 35 % in the intervention and usual care groups at 12 months, respectively (p = 0.44). Conclusions: Patient-centered interventions that recommend an abstinence goal and offer brief therapy for Food Behavior Disorder FBD appear to be the most effective.

Keywords: alcoholism, nursing, primary care, intervention.

RESUMEN

Introducción: la mayoría de las personas con trastornos por consumo de alcohol no se someten a un tratamiento. Objetivo: Evaluar la atención a pacientes con trastornos por consumo de alcohol por enfermería en atención primaria. Método: Se realizó un ensayo de estímulo aleatorizado. Se llevó a cabo en 3 prácticas de atención primaria durante 12 meses. Resultados: El porcentaje medio de DCA disminuyó del 61 % al inicio al 39 % y 35 % en los grupos de intervención y atención habitual a los 12 meses, respectivamente (p = 0,44). Conclusiones: Las intervenciones centradas en el paciente que recomiendan una meta de abstinencia y ofrecen una terapia breve para los TCA parecen ser las más efectivas.

Palabras claves: Alcoholismo, enfermería, atención primaria, intervención

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INTRODUCTION

More than 13% of adults in the United States have active Alcohol Use Disorders (AUD) (1), and fewer than 1 in 5 receive treatment for alcoholism. Even when referred, most people with AUDs do not undergo alcohol treatment. In addition, these disorders are often chronic [1].

Experts have called for new primary care (PC) models for managing EDs. These models focus on engaging patients in patient-centered PC, often with shared decision-making, because no single treatment among several effective medications and behavioral treatments for ED is consistently superior[2]. As a result, engagement in alcohol-related care has been identified as a key measure

of the quality of care for AUDs, including in PC. However, trials testing the management of ED by PA have had variable results[3].

The present intervention was designed to improve alcohol-related outcomes by engaging patients at high risk for ATT in patient-centered alcohol-related care, including individualized drinking goals[4]. The trial tested whether the 12-month intervention decreased the frequency of heavy drinking and increased the proportion of patients drinking below recommended limits without alcohol-related symptoms.

METHOD

A randomized stimulus trial was conducted to offer patients alcohol-related services but did not require them to accept. The trial was conducted in 3 primary care practices in Tulcán for 12 months, from January to December 2019. This study was approved by the Universidad Regional Autónoma de Los Andes (UNIANDES).

Primary care patients were eligible for recruitment if they had positive screening results for AUDs in their Electronic Health Records (EHR) according to Alcohol Use Disorders Identification Consumption Test-Consumption (AUDIT-C) scores (≥4 points for women and ≥5 for men)[5]. The multistep recruitment process included asking PC providers (e.g., physicians, nurse practitioners, and physician assistants) to screen their patients with positive screening results for appropriateness and to sign letters of invitation to the study if they wished; sending letters of invitation to patients with an opt-out option; telephone screening; and in-person baseline assessments. In addition, about 25% of men eligible for recruitment were randomly assigned to a noncontact group to allow assessment of recruitment effects.

Inclusion criteria, designed to identify patients who might benefit from alcohol care management, included receiving PC at a study clinic, age 21 to 75 years, and heavy alcohol use (≥4 drinks/occasion for women and ≥5 for men, at least twice a week in the past month or once a week if prior alcohol treatment). Exclusions were acute medical or psychiatric instability, alcohol treatment in the previous 90 days, cognitive impairment, end-of-life care, current or planned pregnancy, enrollment in another VA trial, plans to leave VA, employment by VA, exclusion by PC provider, or inadequate contact information.

Two nurses provided alcohol care management for 12 months, consistent with effective approaches for other chronic conditions, communicating with PC providers, Nurses received 6 to 18 hours of training in motivational interviewing and ATT, depending on previous experience.

Nurses invited patients to 1 or 2 engagement visits focused on patients´ lives and goals. Subsequently, nurses provided feedback from initial assessments, using motivational interviewing and shared decision-making, to engage patients in considering options regarding alcohol use (no change, self-management, decreased alcohol use, or abstinence) and asked whether patients wanted to support in making changes. The frequency of nurse visits and whether they occurred by telephone or in-person were also based on patient preference. However, the nurses recommended follow-up every 1 to 2 weeks for two months and then monthly, with the next appointment scheduled at the end of each contact. Patients who missed appointments were called weekly, then monthly and sent letters.

Baseline assessments included face-to-face interviews, self-report questionnaires, and laboratory tests. Alcohol use outcomes were assessed at 3 months and 12 months by independent, blinded telephone interviewers.

Two primary outcomes, measured at 12 months, were the percentage of heavy drinking days (DCA) and good drinking outcomes (BRA). These outcomes were relevant regardless of whether the patient's goal was abstinence. The percentage of AUD was the number of days without hospitalization when the patient reported heavy drinking (defined above) at the 28-day follow-up interview. The percentage of AUD is associated with ATT symptoms. An ARB was defined as abstinence or alcohol consumption below the recommended limits based on the timeline follow-up interviews (0 AUD and ≤7 or ≤14 drinks per week for women and men, respectively), and no alcohol symptoms (last three months) on the Short Inventory of Problems (SIP)[6].

Secondary outcomes of alcohol consumption defined a priori included the percentage of AUD and ARB at three months and others measured at 3 and 12 months: no heavy drinking, percentage of abstinence days, abstinence, and preparedness rules. At 12 months, patients also completed the

AUDIT (0-40 points), including the AUDIT-C (0-12 points).

The database and statistical processing of the data were performed and analyzed in the SPSS 26 statistical program (SPSS Inc., Chicago, IL, USA). Descriptive statistics were used for the results collection, presentation and interpretation, and the significance level was set at 0.05 to consider the result significant. Summary measures were used for quantitative data, such as arithmetic mean and standard deviation. For the health-related quality of life, proportional odds models with a logit link were used to estimate odds ratios.

RESULTS

Of 1400 patients who completed telephone screening, 571 were eligible, and 304 (53%) consented and were randomized. Two hundred seventy-five participants (90%) were male, 206 (68%) were white, and the mean (SD) age was 51.4 (13.8) years. The intervention (n = 150) and usual care (n = 154) groups were comparable at baseline, and follow-up was comparable. Two hundred fifty-eight patients (85%) completed interviews at 12 months.

Among participants randomized to the intervention, 137 of 150 (91 %) had at least 1 visit with a nurse, and 77 of 150 (51 %) had at least 6 visits (8 [5 %] had 1 visit; 52 [35 %], 2-5 visits; 32 [21 %], 6-9 visits; and 45 [30 %], ≥10 visits). More patients in the intervention group than in the usual care group were treated with TCA medications (respective numbers of patients: oral naltrexone, 39 and 11; acamprosate, 12 and 0; and disulfiram, 4 and 5), but there was no difference in addiction treatment at 3 or 12 months (Table 1).

Table 1. Alcohol-related care received by patients in usual care and intervention groups.

Alcohol-related care	Baseline		3 months		12 months		P-value for usual care vs. intervention	
	Usual Care	Intervention	Usual Care	Intervention	Usual Care	Intervention	3 months	12 months
Use of TCA drugs	2,0 (0,5-7,6)	0,7 (0,1-4,6)	4.6 (2.3-8.7)	14,0 (9,5-20,1)	8.4 (5.3-13.3)	32,0 (25,9-38,8)	.003	<.001
Use of TCA medication >30 d	0,7 (0,1-4,2)	0,7 (0,1-4,6)	2.6 (1.1-6.3)	9.3 (5.7-14.9)	7.1 (4.3-11.7)	26,0 (20,5-32,4)	.01	<.001
Addiction treatment	7.1 (4.1-12.1)	6.7 (3.3-12.9)	6,5 (3,5-11,9)	5.3 (2.5-10.9)	14,3 (9,9-20,2)	12,7 (8,4-18,6)	.75	.60
AA Participation	N/A	N/A	N/A	N/A	16,4 (10,9-24,1)	12,1 (7,7-18,5)	N/A	.41
Any alcohol-related care	9.1 (5.6-14.4)	7.3 (3.8-13.6)	8.4 (5.1-13.8)	18,0 (12,7-24,8)	26,0 (18,8-34,8)	42,0 (35,0-49,4)	.005	.005

Source: statistical analysis, p≤0.05, AA: alcoholics anonymous, AUD: alcohol use disorders.

Primary outcomes improved at 12 months but did not differ between groups. The mean percentage of ACD decreased from 61 % (95 % CI, 56 % -66 %) at baseline to 39 % (95 % CI, 32 % - 47 %) and 35 % (95 % CI, 28 % -42 %) in the intervention and usual care groups at 12 months, respectively (p = 0.44). The percentages of patients with ARB were 15% (95% CI, 9%-22% [18 of 124 patients]) and 20% (95% CI, 14%-28% [27 of 134 patients]) in the intervention and usual care groups, respectively (p = 0.32). The results did not change in sensitivity analyses restricted to complete cases.

Secondary outcomes of alcohol consumption at 3 and 12 months showed no benefit from the intervention. The percentage of days abstinent was higher for patients in the usual care group at 3 and 12 months, while health status showed greater improvement for patients in the intervention group at 12 months. Outpatient utilization did not differ, except that specialty mental health care utilization was lower for patients in the intervention group at 12 months.

Analyses of the no-contact group suggested that recruitment did not decrease patients' alcohol consumption. Adjusted mean RSE AUDIT-C scores at follow-up did not differ between men

potentially recruited and those in the noncontact group (mean [SD] score of 4.2 [0.09] in the noncontact group vs. 4.3 [0.05] in the potentially recruited group; $p = 0.40$).

DISCUSSION

The trial evaluated whether offering PA management of alcohol care to patients at high risk for AUD improved drinking outcomes. The intervention did not reduce alcohol consumption or related symptoms despite increasing participation in alcohol-related care, including a 4-fold increase in initiating TCA medications. The intervention was associated with fewer days of abstinence than usual care.

Four previous trials of alcohol care management showed increased patient participation in alcohol-related care, but findings regarding changes in patients' alcohol consumption have been mixed. One trial tested an intervention that included a recommendation to take naltrexone and abstain from drinking, with frequent visits to encourage both; 66% of patients receiving the intervention took naltrexone, and the intervention reduced heavy drinking (secondary outcome). Another trial enrolled hospitalized VA patients and tested an intervention focused on PC management of alcohol-related medical conditions with the goal of abstinence[7,8]. The intervention improved 3 of 4 alcohol-related outcomes. The AHEAD trial enrolled persons with AUD (77 %) and substance use disorders (DUD) (88 %) from outpatient CP (>74 % residential detoxification) and evaluated CP delivered by an interdisciplinary team that included a care manager[9]. The patient-centered intervention increased TCA medication use from 4% to 16%, but did not improve primary or secondary drinking outcomes. Then, one trial tested care management in patients with a high likelihood of TCA and opioid use disorders. Care coordinators offered referrals for brief therapy in PA and/or PA providers for medications. The intervention did not increase ACT or opioid use disorder medication use (both 13 %), but increased abstinence from both alcohol and opioids, the primary outcome: 33 % vs. 22 % were abstinent at follow-up (P = . 03) [10].

Other aspects of the trial design may have contributed to different findings. For example, trials in which attention management failed to reduce alcohol consumption had prespecified primary drinking outcomes and rigorously assessed bias due to a lack of follow-up data[11]. One trial showed a decrease in heavy drinking, a single prespecified secondary outcome[12]. Another found that 3 of 4 drinking outcomes improved significantly[13]. The third had a composite outcome of abstinence from opioids and alcohol, but secondary analyses showed that the benefit was restricted to patients with ACT alone[14].

Specific elements of alcohol care management interventions seem likely to contribute to the different outcomes of alcohol care management trials. All the trials that showed a decrease in alcohol consumption in the intervention compared with the control condition were abstinence-oriented. Two of the 3 tested more directive, albeit patient-centered, interventions in which patients were presented with a treatment plan with an explicit recommendation for abstinence[11,15]. In summary, the trial results, when added to the existing literature, suggest that to be effective, alcohol care managers may need to recommend abstinence, engage most patients in naltrexone use, and offer effective behavioral treatment in PA[16].

The trial has important limitations. First, although the intervention was designed to address ACTs, only 73% of participants met the criteria for ACTs at baseline. Second, the multistep recruitment may have motivated some patients receiving usual care to switch and seek care, and the CSR documentation of randomization to the usual care group may have led clinicians caring for patients in the usual care group to refer them for alcohol treatment[17,18]. More than 25% participated in specialized treatment or Alcoholics Anonymous at 12 months, and patients in the usual care group reported more days of abstinence at both follow-ups. [21] Future practical clinical trials should be designed to evaluate PA interventions compared with true usual care without recruitment, screening, and evaluation of the comparison group until follow-up[19,20]. Third, it was an effective trial and did not evaluate intervention fidelity because of concerns that audiotapes might interfere with participation. Despite 2 hours of weekly supervision, nurses may not have delivered the intervention as intended. Fourth, the main measures were based on

potentially biased self-reports, and the intervention might have made patients more comfortable accurately reporting their alcohol consumption. Future analyses will assess mental health symptoms and health status across multiple domains.[22]

CONCLUSIONS

The intervention engaged patients in alcohol-related care and increased the use of TCA medications. However, the nursing care management intervention did not reduce alcohol use more than usual. Patient-centered interventions that recommend an abstinence goal, involve most patients in medication use or offer brief therapy for TCAs appears to be the most effective. Future research should evaluate whether these interventions improve functioning, health outcomes, and patient-reported drinking outcomes.

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