Role of general practitioners in the management of problems related to alcohol intake in primary care

Papel de losmédicos generalesenelmanejo de losproblemasrelacionados con la ingesta de alcohol en la atenciónprimaria

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Abstract

Introduction: There is considerable evidence that general practitioners with a more positive role toward patients with hazardous alcohol use exhibit better management.
Objective: To determine the role of providers and therapeutic commitment to alcohol-related problems.
Methods: A randomized controlled trial was conducted; 124 physicians from 82 general practices were randomized into intervention or control groups.
Results: Multilevel regression analysis showed that physicians in the intervention group improved their therapeutic commitment by more than 0.43 on the 7-point Likert scale (95%-CI 0.13-0.73).
Conclusions: The study improved the therapeutic engagement of general practitioners with patients with alcohol-related problems.

Keywords: general practitioners, alcoholism, primary care, therapeutic commitment. Source: DeCS
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Resumen
Introducción: Existeevidencia considerable de que losmédicos de cabecera con un papelmáspositivohacialospacientes con consumopeligroso de alcohol presentanmejormanejo.
Objetivo: Determinarelpapel de losproveedores y elcompromisoterapéuticohacialos problemas relacionados con el alcohol
Método: Se realizó un ensayo controladoaleatorio, 124 médicos de 82 prácticas generales al azar engrupos deintervención o de control.
Resultados: El análisis de regression multinivelmostró que losmédicos del grupo de intervenciónmejoraronsucompromisoterapéutico más de 0,43 en la escala Likert de 7 puntos (95%-IC 0,13-0,73)
Conclusiones:Nuestroestudiomejoróelcompromisoterapéutico de losmédicos de cabecera con lospacientes con problemas relacionados con el alcohol.

Palabras clave: medicos generales, alcoholismo, atenciónprimaria, compromisoterapéutico. Fuente: DeCS

Introduction

Alcohol consumption is a major determinant of the global burden of disease. At 20 grams per day and above, the risk of harm accumulates: it increases the risk of chronic diseases, cancers, related neuropsychiatric conditions, intoxication, alcoholism, accidents, injuries and violence[1]. In addition, alcohol-related costs amount to 125 billion euros per year in the Americas for the health, welfare, employment and criminal justice sectors due to alcohol-attributable illness, injury and violence. In this study, safe to moderate consumption corresponds to 2-3 standard drinks per day for men and 1-2 for women, combined with two days per week with no consumption at all and a maximum of 5 and 3 drinks per occasion for men and women, respectively. Hazardous and harmful alcohol consumption was assessed with the Alcohol Use Disorders Identification Test (AUDIT), an instrument developed to identify these conditions. Scores of 8 to 15 and 16 to 19 correspond to hazardous and harmful alcohol consumption, respectively[2].

Intervening in drinking risk patterns through screening and brief interventions at an early stage is a cost-effective way to prevent problem drinking. Primary health care is well suited for such interventions because large numbers of patients with a wide range of drinking patterns can be reached[3]. Unfortunately, despite the evidence, such assessments and brief interventions are rarely implemented in routine clinical practice[4]. Among the most frequently cited reasons are perceived lack of time, inadequate training, fear of antagonizing clients, perceived incompatibility of brief alcohol intervention with primary health care, and the belief that those who are alcohol dependent do not respond to interventions [5].

Behavioral theories can explain the involvement of general practitioners (GPs) in preventing alcohol-related problems. Based on the Theory of Planned Behavior, the ASE model is one of the models that has often been used to explain behaviors[6]. The model assumes that behavioral intention can predict behavior, which is determined by the individual's attitude, social support, and self-efficacy. Moving from practitioner intentions to actual actions depends on the person's skills and environmental barriers.

There is considerable evidence that GPs with a more positive role, safety and therapeutic commitment to patients with hazardous or harmful alcohol use are more involved and manage more alcohol-related problems than others[5]. Anderson et al.[3] have shown that GPs who received more alcohol education; perceived that they were working in a supportive environment, expressed greater role safety in working with alcohol problems, and reported greater therapeutic commitment to working with alcohol problems, were more likely to manage clients with alcohol-related problems. A negative attitude appeared to be an implementation barrier to behavior change. Their training and support did not improve role safety or therapeutic engagement. The authors recommended that GPs' emotional responses be more carefully monitored in future quality improvement programs, for example, through on-site agents or facilitators[3]. Accordingly, Funk et al. suggested that increasing success rates of disseminating brief interventions that support strategies that address therapeutic engagement, role safety, and beliefs more deeply should be explored[4].

To further explore how general practitioners' role safety and therapeutic engagement could be positively influenced, developing a customized implementation program targeting role safety and therapeutic engagement and incorporating the above recommendations. This multifaceted alcohol-specific implementation strategy included professional, organizational, and patient-directed strategies. The objective was to study 1) the effect of a multifaceted implementation strategy on provider role safety and therapeutic engagement toward alcohol-related problems; and 2) other factors that may explain changes in role safety and therapeutic engagement toward alcohol-related problems.

Method

A cluster randomized controlled trial was conducted; 124 physicians from 82 general practices were randomly assigned to the intervention or control group. This study evaluated the effect of a customized multifaceted enhancement program on hazardous and harmful alcohol use screening and brief intervention rates of general practitioners, as well as on role safety and therapeutic engagement. This study was approved by the Universidad Regional Autónoma de Los Andes (UNIANDES).

Data were collected with measurements before (T0) and 12 months after (T1) program delivery. Practices could only enroll if all primary care physicians in practice agreed to participate. To encourage enrollment, nonparticipants received a reminder after two weeks and, if necessary, a second reminder after two weeks. Researchers sent reminders after two and four weeks to encourage response at the subsequent measurement. Depending on the assignment group and the degree of participation in the different program components,

The enrolled practices were randomly assigned by a computerized scheme (block randomization) to an intervention group and a control group of equal size. Randomization was performed at two points: after the first two waves of recruitment and after the third wave. The enhancement program was offered to general practices from October 2020 to June 2021 (intervention period).

Adaptation during training and support visits focused on referral role safety and provider therapeutic engagement. During the first training session, baseline role safety and therapeutic engagement of providers were discussed and assumptions about hazardous and harmful levels of alcohol consumption were addressed. In addition, theoretical underpinnings were discussed, i.e., definitions of risky drinking, epidemiology, risk of alcohol use, risk groups, symptoms, and possible (brief) interventions. The second and third sessions focused on translating theory into practice to overcome barriers for general practitioners.

This article describes the results on role safety and therapeutic engagement of general practitioners. These were measured before and after program implementation using the 10-item Abbreviated Alcohol and Alcohol Problems Perception Questionnaire (SAAPPQ). The SAAPPQ has been developed in England as a quick but meaningful measure of GPs' attitudes to working with drinkers, measuring change over time or when planning intervention strategies[7].

The database and statistical processing of the data were performed and analyzed in the statistical program SPSS 26 (SPSS Inc., Chicago, IL, USA). Descriptive statistics were used for the results collection, presentation and interpretation.

Due to the hierarchical structure (MGs nested within practices), a multilevel linear analysis (mixed model) was developed. The analysis considered the variability associated with each level of nesting. In a mixed model, both fixed and random effects can be analyzed, performing a model with a random intercept for practices and all other fixed variables, as these were used to correct the effect.

Results

The 82 participating practices with 124 general practitioners were randomized. After randomization but before premeasurement, five practices were withdrawn: one in the intervention group and four in the control group (no data available). This resulted in 40 practices (63 GPs) receiving the assigned intervention and 37 practices (56 GPs) in the control group.

Regarding baseline and follow-up measurement, 112 family physicians provided sufficient information to be included in the analysis: 59 in the intervention group and 53 in the control group.

GPs in the intervention and control groups differed significantly only in age: GPs in the intervention group turned out to be four years younger than their colleagues in the control group, but in both groups, the majority of GPs were middle-aged (45- 50 years).

The nonparticipant questionnaire was returned by 761 physicians (28%). Regarding age, the average percentage of full-time work, caseload, and work area, participating physicians did not differ from nonparticipants. However, the nonparticipating GPs worked on average in practices with more colleagues than the participating GPs, who mostly worked in solo or duo practices ($p < 0.05$). In addition, the nonparticipating population consisted of more male GPs than the participating population, but only with a 2% difference ($p < 0.05$). Role security and therapeutic engagement of nonparticipants did not differ from participants' baseline levels.

Table 1 shows scores before and after program implementation and the mean difference for role safety and therapeutic engagement, respectively. Physicians in both the intervention and control groups improved their role safety and therapeutic engagement, although the intervention group showed a higher mean score.

Table 1.Role security and therapeutic commitment before and after the intervention.

Role Security			
Assignment	Mean before (SD	Mean after (SD)	Mean difference (SD)
intervention group	5,01 (0,91)	5,58 (0,79)	0,59 (1,11)
Control	5,08 (0,76)	5,46 (0,61)	0,31 (0,72)
Therapeutic Commitment			
Assignment	Mean before (SD	Mean after (SD)	Mean difference (SD)
intervention group	3,92 (0,92)	4,58 (0,81)	0,63 (0,97)
Control	3,90 (0,74)	4,02 (0,76)	0,20 (0,64)

Source: Own elaboration based on statistical analysis,p ≤ 0,05

Table 2 shows the multilevel analysis results without and with multiple imputations for role security and therapeutic commitment, respectively. This table shows no significant changes in the parameters, allowing us to proceed with the multiple imputation model. The multilevel regression analysis showed that physicians in the intervention group improved their therapeutic commitment by more than 0.43 on the 7-point Likert scale (95%-CI 0.13-0.73) compared to physicians in the control group. In contrast, role safety did not change significantly due to the intervention (β = 0.11; p = 0.58; 95%-IC -0.31-0.54).

Table 2. Role security and therapeutic commitment with and without multiple imputations.

Role Security				
Assignment	β*	95%-IC	EE	p-value
Effect of intervention without multiple allocation	0.13	-0,18 - 0,44	0.16	0.4111
Effect of intervention with multiple imputation	0.12	-0,31 - 0,54	0.21	0.5791
Therapeutic commitment				
Assignment	β*	95%-IC	EE	p-value
Effect of intervention without multiple allocation	0.52	0,21 - 0,83	0.16	0.0017
Effect of intervention with multiple imputation	0.43	0,13 - 0,73	0.15	0.0052

Source: Own elaboration based on statistical analysis, *Improvement on 7-point Likert scale; 95% confidence interval; SE = Standard error.

For therapeutic engagement, how important GPs thought it was to improve their care for problematic alcohol use and the proportion reported by GPs of patients asked about alcohol use at baseline were identified as likely determinants of effect ($p < 0.15$). The intervention effect was further increased compared with the uncorrected intervention effect from 0.43 to 0.51 points within the therapeutic engagement.

Discussion

The main finding of this study was that the implementation program improved the therapeutic engagement of primary care physicians, but despite all efforts to tailor the intervention to providers, it did not affect role safety.

The importance that GPs thought it was to improve their care for problematic alcohol use and the proportion reported by GPs of patients asked about alcohol use at baseline were identified as determinants of the effects on therapeutic engagement. However, when this was corrected, the program remained effective in improving therapeutic engagement. For role safety, no determinants of effects were identified.

The findings do not confirm the hypothesis that the customized implementation program would improve GP role safety, despite efforts to tailor providers' basic role safety. Role safety is about having the knowledge and skills to recognize and discuss risky alcohol use and role legitimacy[8,9]. Looking at the practitioner-oriented program elements that might have influenced role safety, educational sessions and support visits were tailored to clinicians' SAAPPQ baseline scores in the sense that SAAPPQ scores and assumptions toward hazardous and harmful levels were discussed. One possible explanation for the improvement in therapeutic engagement and not role safety could be that the baseline level of role safety was higher than that of therapeutic engagement and left less room for improvement[10]. Another reason for not showing a substantial improvement in role safety could be that the follow-up was measured only after 12 months. An initial effect on role safety could have faded at that time. Also, in line with the finding that the program did not increase role security, the study results did not show improved screening and brief intervention rates. Rates of screening and brief intervention initially improved during the implementation period, but the effects deteriorated by the end[11]. This may imply that only if role safety and therapeutic engagement are improved will this impact provider behavior. Furthermore, looking at the two subdomains within role security, one might expect that it would be easier to improve role appropriateness (knowledge and skills) than role legitimacy. The results showed a greater improvement in role adequacy than in role legitimacy. However, the difference was not sufficient to draw firm conclusions. However, it might indicate that more attention should be paid to improving role legitimacy[12].

Furthermore, similar to the findings, Anderson et al. found that training and support did not increase role security. They even found that role security and therapeutic engagement for GPs who already had role insecurity and little therapeutic engagement deteriorated[3,13]. It is not confirmed from this finding that experience with screening and brief interventions deteriorates role security in GPs who were already role insecure, although we did see how important GPs thought it was to improve their care for problem drinking and the proportion reported by GPs of patients asked about alcohol use at baseline. However, tailoring the intervention to the role safety levels of GPs may not be sufficient to improve role safety and, subsequently, screening and brief intervention behavior. Butler et al.[14] emphasized not only telling GPs to incorporate behavior change counseling into their consultations but also that training requires more finesse because GPs' perceptions and internally driven processes are addressed in training and support sessions. The study incorporated these elements; this may explain why we achieved improved therapeutic engagement.

Only in the aspect of gender and type of practice, there was only a small difference between participating and nonparticipating general practitioners. This means that the results are likely representative of the general practitioner population. This is interesting, as practice recruitment was laborious and we had to invite more practices than anticipated. Furthermore, colleagues' experiences in international clinical trials teach us that it is increasingly difficult to recruit and retain GPs for clinical trials[15,16].

On the other hand, the study's very limited degree of GP participation in the training sessions and visits: only 59% of the GPs in the intervention group met the minimum enrollment requirements. This possibly means that the acceptability of the implementation program was suboptimal. In addition, it was possible to identify different effects of the implementation program among patient subgroups (i.e., effect modification). However, the sample size was likely too small to detect possible effect modification. In addition, during a systematic failure of missing a question in a portion of the questionnaires, we required multiple imputations to maintain as much power as possible. However, after checking whether multiple imputations affected the results, there were no signs of affected results.

Although it is possible to improve the therapeutic engagement of GPs, it was described in a previously published article from this study that the implementation program did not produce improved screening and brief intervention outcomes at the GP level[17,18], nor at the level of patients' alcohol consumption both at the one-year follow-up. As suggested in a previous article, this does not necessarily mean that the implementation program did not work, as the transtheoretical model of behavior change (health) suggests that it can take up to five years for a new behavior to be integrated into daily routines[19]. In addition, researchers are interested in having effects of implementation strategies, resulting in high expectations and ambitious, high-intensity implementation programs. It is probably more effective to take very small steps in the process of general practitioners incorporating prevention activities, as their practice focuses more on the disease model[20].

Conclusions

The study improved GPs' therapeutic engagement with patients with alcohol-related problems but failed to improve GPs' role safety. However, the importance that GPs thought it was to improve their care for problem drinking and the proportion reported by GPs of patients asked about alcohol use at baseline contributed to the program's effect on therapeutic engagement.

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