

Interventions to cope with alcohol abuse: integrative review*

Intervenções para enfrentamento do abuso de álcool: revisão integrativa

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ABSTRACT

Alcohol is the most consumed drug in the world, which could generate social and health problems, affecting users, people living with them and the society in general. The aim was to identify the best evidence of interventions to reduce alcohol abuse. An integrative review of the literature, conducted on LILACS, CINAHL, PUBMED and SCOPUS, through the descriptors "intervention studies" and "alcoholism". Nineteen articles were selected, most of them classified as two regarding level of evidence. They involved interventions with alcohol users, the most efficient were short interventions, internet-based interventions and counselling. Although cessation of alcohol use was not proved through the interventions, results point to a significant reduction in consumption, increase of the availability to change drinking habit and effective impact of short interventions when compared to usual treatments. Short interventions constitute the best interventions to reduce alcohol abuse.

Descriptors: Alcoholism; Intervention Studies; Nursing; Health Promotion.

RESUMO

O álcool é a droga mais consumida no mundo, que pode gerar problemas sociais e de saúde, afetando usuários, pessoas que com estes convivem e a sociedade em geral. O objetivo foi identificar melhores evidências em intervenções para redução do abuso de álcool. Revisão integrativa de literatura, realizada na LILACS, CINAHL, PUBMED e SCOPUS, por meio dos descritores *intervention studies* e *alcoholism*. Os 19 artigos selecionados, em sua maioria, foram classificados como nível dois de evidência, envolviam intervenções com usuários de álcool, destacando-se como as mais eficientes as intervenções breves, intervenções baseadas na *internet* e aconselhamento. Embora não se comprovou a cessação do uso do álcool a partir das intervenções, os resultados apontam redução significativa do consumo, aumento na disponibilidade para mudança do ato de beber e impacto efetivo das intervenções breves quando comparadas aos tratamentos usuais. As intervenções breves constituem as melhores intervenções para redução do abuso de álcool.

Descritores: Alcoolismo; Estudos de Intervenção; Enfermagem; Promoção da Saúde.

INTRODUCTION

Alcohol has stood out as the most consumed drug in the world, as well as in the country, and it is associated with harm for the populations' health, accidents, and social problems, within others. People over 15 years drink on average, 6.2 liters of pure alcohol per year, that is, 13.5 grams of pure alcohol per day⁽¹⁾.

In Brazil, alcoholism significantly advances, with 63% of the Brazilian population consuming some type of alcoholic beverages, 12% alcohol dependents and more than 10% have some morbidity or mortality occurrence related to alcohol⁽²⁾. The number of adults drinking at least once a week is 54%⁽³⁾. Alcohol abuse can also be connected to the consumption of illicit drugs.

To cope with the exposed problem, it is important to implement and assess interventions to reduce alcohol abuse. These interventions constitute evidence relevant to health professionals' practice.

Facing the exposed, it emerged the interest to conduct this study. To assess the evidence of studies with methodological rigor is justified by the relevance of what this evidence brings to practice, especially in the actual Brazilian scenario where there is a higher attention to alcohol problems, crack and other drugs.

Thus, we opt for an integrative review of interventions to reduce alcohol consumption, for understanding that identifying the best evidence contributes with coping with this problem and supports health promotion actions.

In addition, a search on the Cochrane Library showed that most studies related to this theme investigate specific interventions for specific groups, as youth, elderly and pregnant women, therefore not having studies with the same perspective as presented here.

Thus, the aim of the study was to identify the best evidence of interventions to reduce alcohol abuse.

METHOD

We conducted the following review steps to in this study: establishment of the review hypothesis and

objectives; definition of inclusion and exclusion criteria for articles (sample selection); definition of the information to be extracted from the selected articles; analysis of the results; discussion and presentation of findings⁽⁴⁾.

We formulated the following question to guide this integrative review: which interventions, from the scientific evidence, are more efficient to reduce alcohol abuse?

Inclusion criteria for articles were: to be a complete research article, to be published in English, Portuguese or Spanish, during 2005 and 2015; to present interventions for alcohol abuse reduction and to have evidence level of 1 or 2. We did not define exclusion criteria.

Scientific evidence is classified in accordance with the data source and the robustness of the information given. Thus, for this study, we opt to assess evidence originated from systematic reviews and meta-analyses from randomized controlled trials, level 1 and randomized clinical trials, level 2 of evidence⁽⁵⁾, for understanding that those sources provide the best evidence for practice. The articles were searched on the databases LILACS, CINAHL, PUBMED and SCOPUS, using the descriptors: "intervention studies" and "alcoholism".

For the selection of articles, we initially searched the databases with the previous cited descriptors. The second step consisted of identifying the language of the studies. After, we read the abstracts and, articles not related to the theme, not presenting an intervention and not being level 1 or 2 of evidence, were excluded. One article was present in both databases. Table 1 present the distribution of articles in accordance with the search criteria and disposal in the searched databases.

Table 1: Distribution of articles according with the databases LILACS, CINAHL, PUBMED and SCOPUS. Fortaleza, CE, Brazil, 2015.

	LILACS	CINAHL	PUBMED	SCOPUS
Studies found	02	09	89	292
Not in Portuguese, English or Spanish	00	00	00	11
Not related to the theme	00	02	11	218
Without an intervention	00	02	64	32
Not being evidence level 1 or 2	01	05	05	19
Duplicated	00	00	01	00
Total selected	01	00	08	10

The search was conducted through online access. For data collection, we used an instrument with the following items: article identification, used methodology, local where study was conducted, public that was targeted in interventions, intervention content and results found.

The articles selected for this study was analyzed and the data obtained was organized and presented in accordance with the investigated interventions in those.

RESULTS

Initially, we found 392 articles, and after reading the abstracts, we excluded 373, according to the pre-established criteria. The final sample was constituted by 19 articles.

Articles selected were published in international journals, specifically from drugs and alcohol field. Only one article was published in a national journal, from the nursing field.

Studies were developed by researchers affiliated to centers or research institutes related to alcohol, drugs, public health and psychiatry. They were from United States (06), Sweden (03), United Kingdom (02), Australia (02), Canada (02), Germany (01), Japan (01), New Zealand (01), Brazil (01), and Netherlands (01). One article had authors from two different countries.

The articles selected were distributed according to the article identification, level of evidence, targeted public, researched intervention and main results, as presented in the Chart 1.

Chart 1: Synthesis of articles regarding article identification, level of evidence, targeted public, researched intervention and main results. Fortaleza, CE, Brazil, 2015.

Author/ Year/ Journal/ Level of evidence	Article title	Public	Intervention	Main results
⁽⁶⁾ Cunningham et al/ PLoS One./ 2012/ Level I	Ultra-short Intervention for Problem Drinkers: Results from a Randomized Controlled Trial	Problematic drinkers	Ultrashort intervention (personalized flyers, flyers with alcohol information and no flyers)	The short intervention modified to a ultra-short format can have a significant public health impact.
⁽⁷⁾ Nehlin et al./ Addict Sci Clin Pract.2012/ Level II	Brief alcohol intervention in a psychiatric outpatient setting: a randomized controlled study	Ambulatory patients with mental disorders	Short intervention	Brief interventions can promote reduction of AUDIT punctuation in a small scale of patients with mental disorder who harmfully use alcohol.
⁽⁸⁾ D'Onofrio et al./ Ann Emerg Med./2012/ Level II	Brief Intervention Reduces Hazardous and Harmful Drinking in Emergency Department Patients	Emergency hospitalized patients	Short intervention	Brief interventions can reduce alcohol consumption of high risk and harmful drinkers. These results can support the use of short interventions in emergency settings.
⁽⁹⁾ J Med Internet Res./2012/ Level II	Comparison of Two Internet-Based Interventions for Problematic Drinkers: Randomized Controlled Trial	Problematic drinkers	Internet-based interventions	The Help Center to Alcohol provided more benefits in short term for problematic drinkers than observed Check Your Drink (CYD).
⁽¹⁰⁾ Helstrom et al./ Addict Disord Their Treat./ 2014/ Level II	Treating heavy drinking in primary care practices: evaluation of a telephone-based intervention program	Primary care users	Short telephone-based intervention	There was a reduction in the frequency of alcohol use in the group that receiving the intervention and in the group receiving standard care.
⁽¹¹⁾ Vernon ML/ J Subst Abuse Treat. 2010/ Level I	A review of computer-based alcohol problem services designed for the general public.	General public	Computer-based program	Individuals who completed the program seemed to show improvements.
⁽¹²⁾ Webb et al./ Addiction./2009/ Level I	A systematic review of work-place interventions for alcohol-related problems	Workers	Training of psychosocial skills, internet-based programs	It was seen that internet-based interventions in health exams and lifestyles, psychosocial training competencies and accompaniment of pairs have potential to produce benefic results.
⁽¹³⁾ Freyer-Adam et al./ Drug Alcohol Depend./ 2008/ Level II	Brief alcohol intervention for general hospital inpatients: a randomized controlled trial	Patients hospitalized in general hospitals	Short intervention	The intervention was not effective to reduce alcohol consumption or increase wellbeing 12 months after admission. There was a positive effect for readiness for drinking change and readiness to search for formal help for alcoholism problems.
⁽¹⁴⁾ Geshi et al./ Acta Med. /2007/ Level II	Effects of alcohol related health education on alcohol and drinking behavior awareness among Japanese junior college students: a randomized controlled trial.	University students	Health education	Education can be an effective way to increase conscience for health problems related to alcohol, but less effective to change drinking behavior among Japanese students.
⁽¹⁵⁾ Ekman et al./ Addictive Behav./ 2011/ Level II	Electronic screening and brief intervention for risky drinking in Swedish university students: a randomized controlled trial.	University students	Normative feedback and short intervention	There was a significant decrease of average weekly consumption for the intervention group. There were significant drops in heavy drinking episodes over time in both groups. The proportion of risky drinkers decrease about a third in the intervention group. The generic short intervention seemed as efficacious as the long one, including the normative feedback.

Author/ Year/ Journal/ Level of evidence	Article title	Public	Intervention	Main results
⁽¹⁶⁾ Cherpitel et al./ Alcohol Clin Exp Res./ 2010/ Level II	Screening, brief intervention and referral to treatment (SBIRT): 12 month outcomes of a randomized controlled trial in a polish emergency department	Patients from the emergency sector	Screening, short intervention and reference to treatment	Participants from the intervention condition presented significant increase in all variables.
⁽¹⁷⁾ Holloway et al./ Addiction./ 2007/ Level II	The effect of brief interventions on alcohol consumption among heavy drinkers in a general hospital setting.	Patients admitted in general hospitals	Self-efficacy, short intervention and self-help material	The self-efficacy group and the group that received the self-help material had major reductions in weekly alcohol consumption. There was no evidence that the self-efficacy improvement was superior to the self-help material. The brief intervention delivered at the hospital helped heavy drinkers to reduce their alcohol consumption
⁽¹⁸⁾ Sinadinovic et al/ Eur Addict Res./ 2014/ Level II	Targeting individuals with problematic alcohol use via web-based cognitive-behavioral self-help modules, personalized screening feedback or assessment only: A randomized controlled trial.	Internet users	Self-help program versus screening and feedback, internet-based	The self-help intervention in combination with other interventions Was more efficient for changes in alcohol use than only screening or assessment.
⁽¹⁹⁾ Kypri et al/ JAMA. 2014/ Level II	Web-based alcohol screening and brief intervention for university students: A randomized trial	University students	Screening and short intervention	The alcohol detection based on web and short intervention program produced significant reduction in the frequency and global volume of academic problems.
⁽²⁰⁾ Pereira et al/ REBEN./ 2013/ Level I	Efetividade da intervenção breve para o uso abusivo de álcool na atenção primária: revisão sistemática	Not defined	Short intervention	The short intervention is effective in the reduction of the frequency and alcohol quality, but it was not possible to define if it is more effective in users with harmful patterns or dependents.
⁽²¹⁾ Litten et al/ J addict med./ 2013/ Level II	A double-blind, placebo-controlled trial assessing the efficacy of varenicline tartrate for alcohol dependence	Alcohol dependents	Medication	The tested medication reduced the fissure and alcohol consumption.
⁽²²⁾ Gustafson et al/ JAMA Psychiatry/ 2014/ Level II	A smartphone application to support recovery from alcoholism: a randomized controlled trial	Alcohol dependents	Smartphone application	Results suggest the use of application can be beneficial for users with disorders related to use of alcohol.
⁽²³⁾ Voogt et a/ Alcohol Alcohol./ 2013/ Level II	The Effectiveness of the 'What Do You Drink' Web-based Brief Alcohol Intervention in Reducing Heavy Drinking among Students A Two-arm Parallel Group Randomized Controlled Trial	Students	Short internet-based intervention	The tested intervention was not effective to reduce alcohol measures among students with heavy consumption.
⁽²⁴⁾ O'Donnell et al/ Alcohol Alcohol./ 2014/ Level I	The Impact of Brief Alcohol Interventions in Primary Healthcare: A Systematic Review of Reviews	Primary care users	Short-intervention	The short intervention presents positive effects in different cultural environments and in specific population groups.

From 19 selected articles, the researched interventions were developed in hospitals (06), universities (03), through the internet (03), by telephone (02), psychiatric ambulatory (01), work environment (01), residential programs (01), and primary care (01). One article did not specify the intervention setting.

DISCUSSION

The care for people suffering with alcoholism constitutes challenges for managers, health professionals, education and social assistance. Coping actions used nowadays aim health promotion, prevention of abusive consumption, integral care and creation of devices to collaborate for the rehabilitation of users of alcohol and other drugs.

Our findings indicate that short interventions were more used. Interventions described in the studies aimed to change behavior to alter the pattern of alcohol consumption. The short intervention was compared to usual care to promote reduction of the volume of alcohol consumed per week, alcohol quantity and the problems with alcohol⁽²⁵⁾.

These findings are relevant, because short interventions consist in simple resources that can be applied by professionals from any field. Its actions can also constitute of recommendations until resources offered in a structured treatment program⁽²⁰⁾. Short interventions are understood as those developed by health professionals in a general environment and involve individual interaction⁽¹⁷⁾.

Short interventions described in the studies were applied in different environments. We observed a tendency to develop short interventions for alcohol dependent and non-dependent patients admitted in hospitals. Studies conducted interventions in emergency settings, constituting an important setting to implement screening and early intervention^(16,25). Short interventions developed in hospital environments require simple resources, are low cost and help alcohol users to reduce the consumption⁽¹⁷⁾.

To be admitted in a hospital per se, promotes a reduction of alcohol consumption, for this reason, short interventions applied in these environments stimulated larger reductions in this consumption when compared to usual care⁽¹³⁾. Two studies showed that the short intervention was considered the most effective intervention for male users, as it reduced the daily and weekly consumption^(16,26). Internet-based interventions were also used for women with postpartum depression diagnosis, observing its positive effect in the depressive symptomatology during this period⁽²⁷⁾.

These results demonstrated that short intervention can be applied for both genders, becoming a relevant strategy, as the study identified that there are differences related to gender in respect of alcohol abuse/harmful use or dependence, as well as, to consider the differences among genders in the treatment for problems related to alcohol⁽²⁸⁾.

In addition, the use of short interventions associated to electronic screening promoted a significant reduction in the average of weekly alcohol consumption, as well as significant reductions in heavy sporadic use of alcohol⁽¹⁵⁾. These interventions presented a positive impact in the mortality rate related to alcohol abuse⁽²⁰⁾. An estimative from 2012, shows that approximately 3,3 million of deaths were caused by alcohol consumption, corresponding to 5,9% of all deaths in the world⁽¹⁾. The main causes of deaths related to alcohol consumption are violence and accidents.

It was also found short interventions and screening for youth populations. It is believed that motivation to work with this population is grounded in the fact that the youth public is more susceptible and vulnerable to the use of psychoactive substances⁽²⁹⁾. During adolescence, the first episodes of alcohol abuse and other drugs start to happen. Alcoholic drinks and tobacco were cited as most cited substances by adolescents⁽³⁰⁾.

Some revised studies presented interventions based on internet resources, as well as other assessed as relevant for the reduction of the weekly alcohol

consumption average in young adults, with reduction in the alcohol abuse status for the non-harmful status consumption. There was a significant reduction of heavy drinking, that is, in the consumption of many doses^(15,31). Guidance about consumption patterns can vary considerably, but the risk use can be defined many times as a high weekly consumption or a high consumption in one occasion (binge drinking)⁽³²⁾.

The studies presented websites with information about alcohol and electronic screening, in which users could define their consumption pattern and obtain information about its health state^(15,31). In this perspective, the use of information becomes an intervention and can help the user in their decision making.

One study identified significance on the impact of the intervention with personalized experiences based on the web about alcohol consumption. This strategy is important to conduct the person with alcohol problems to treatment, who normally present resistance to look for health to deal with their problem⁽³¹⁾. In addition, there is prejudice and stigma in relation to the alcoholic, affecting their treatment and rehabilitation⁽³³⁾.

Internet-based screening instruments can be useful for professionals, once the results obtained in the tests can be sent online to reference health services. Besides, with the expansion of use by the general population, the internet allows to reach greater number of people and constitute a larger source of information for people to access from any part of the world⁽³⁴⁾. Moreover, access to internet is common among people with problems related to alcohol use and other drugs⁽³⁵⁾.

One of the reviewed studies was conducted with patients from a psychiatric hospital and they used counselling, an individual intervention and group treatment. Individuals participated more in the group treatment⁽¹⁰⁾. In the self-help group, participants tried to resolve their problems related to alcohol. Participation in these groups contributes to physical, mental and social

wellbeing, considering the reception and sharing of experiences in groups⁽³⁶⁾.

When comparing the groups that received the usual care, self-help material and self-efficacy improvement, it was observed that the last two groups obtained reduction in the weekly consumption of alcohol⁽¹⁷⁾. This result proposes that to cope with the alcohol problem, diverse materials, as the self-help flyers can be effective, associated with short and counselling interventions.

One of the revised studies focused in the health education to students. Video and lectures with ex-alcohol users were used in the program, highlighting the fight against alcohol dependence and the recovery from alcoholism. This strategy is important in health education programs, which has contributed to increase knowledge in students about problems related to alcohol⁽¹³⁾.

It is noteworthy that alcoholism consists of a chronic disorder in which the occurrence is a result of a long period of heavy consumption of alcoholic drinks, when students normally present at this time of their lives an occasional use of drinks, therefore, not being considered alcoholics but can be considered consumers at risk. The study highlights the need to conduct actions for the prevention of alcohol consumption between students, trying to decrease the prevalence of its use⁽³⁷⁾.

Health education actions are relevant to help the increase of quality of life of service users. The health professional, specifically the nurse should develop prevention actions for harms caused by alcohol consumption, through educational and informative interventions at school, work places, and services of health attention⁽³⁸⁾. The challenge is in developing activities to stimulate the conscience to value life. When developing these activities, the nurse should stimulate subjects participating in the educational process to have conscience⁽³⁹⁾. Health education involves disease prevention, as well as health promotion. In this perspective, alcoholism should be addressed regarding health prevention and promotion⁽³³⁾.

Thus, consequences of the excessive alcohol consumption and acute alcohol intoxication should be highlighted in health education programs and health promotion⁽¹⁴⁾. Health promotion and prevention of alcohol abuse can also be developed in work environments. Agreeing with that, there is a study highlighting interventions in work environments to reduce alcohol abuse with self-help materials, internet-based programs, training of psychosocial abilities⁽¹²⁾.

Parameters used in the studies to measure alcohol consumption after the interventions should be noted. Studies used different measures, as standard doses consumed per day or weekly; AUDIT (Alcohol Use Disorders Identification Test) to assess consumption problems; reports of heavy drinking; within others.

The AUDIT appeared to be an adequate instrument, as it facilitates the screening process being used globally, and it is easy to apply and connected to short interventions. With this screening tool, four zones of risk related to alcohol consumption can be identified, as noted: low risk use or risk zone I (0 to 7 points), hazardous use or risk zone II (8 to 15 points), harmful use of risk zone III (16 to 19 points) and probable dependence or risk zone IV (20 to 40 points)⁽⁴⁰⁾.

It is pointed out the importance to elaborate and use specific instruments to assess alcohol consumption, as well as its validation for different population groups. Thus, studies providing knowledge of this existing knowledge are needed.

Interventions to reduce alcoholism are diverse and try to attend the needs of the assisted clientele, as well as the place where it is intended to develop them. Interventions can be developed by health professionals, especially nurses, as they presented evidence for its efficacy in coping with alcoholism.

FINAL CONSIDERATIONS

The integrative review revealed that studies are being conducted aiming to assess effective interventions to reduce alcohol abuse. The types of intervention, setting, targeted-public varied considerable, reflecting the multiple strategies that can be used to cope with this problem. From those, short interventions are highlighted which are simple and low cost, which is relevant for health services working with limited budgets. Therefore, short interventions constitute the best interventions to reduce alcohol abuse, however none intervention alone will be capable to significantly reduce the patterns of alcohol consumption for a long period of time.

No studies pointed the cessation of alcoholic drinks use with the interventions assessed. However, results demonstrated a reduction in alcohol consumption significantly higher than the usual care and for long period of times. Moreover, revealed the increase in the availability to change the drinking behavior. These results are important, considering the challenges implicated in the treatment and in the rehabilitation of alcoholics.

In the context in which public policies become more present to cope with the alcoholism problem, it is imperative to search for the better scientific evidence to deal with this situation.

As limitation of this study, the heterogeneity between studies regarding the targeted-public and investigated interventions are noticed, impeding the comparative analysis between their results.

The review is relevant for the clinical practice, as it collaborates with the discussion of effective interventions to reduce alcohol consumption, besides presenting options of strategies for health professionals, dealing with this problem.

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