Perceived barriers to implementing screening and brief intervention for alcohol consumption by adolescents in hospital emergency department in Spain

Barreras percibidas contra la implementación en los servicios de urgencias hospitalarios en España de un protocolo de cribado de consumo de alcohol e intervención breve en adolescentes

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Abstract

Background: Screening for alcohol consumption in adolescents is widely justified in the health care field because of the particular vulnerability of this population, which starts drinking alcohol at a very early age and frequently consumes high levels of the same. Hospital emergency departments (ED) could be a good venue to manage early detection and carry out brief intervention (BI) programmes.

Objectives: The aim of this study was to identify perceived barriers for medical staff of three hospitals in Spain to successfully implement a protocol for alcohol detection and BI for minors in the ED.

Methods: Exploratory qualitative analysis using focus groups with semi-structured, flexible and open-ended questions to explore beliefs, attitudes, and barriers perceived by professionals to screening alcohol consumption and implementing BI in adolescents attended at the ED.

Results: The main perceived barriers by health professionals were lack of time, work overload, mistrust, lack of validated and simple screening tools, lack of training/awareness and legal concerns about informed consent and confidentiality.

Conclusions: Barriers to screening and intervention in ED are similar to those described previously. It is necessary to improve organization of time allocated for medical consultations, avoid limiting ED resources, motivate staff and provide appropriate training.

Keywords: Adolescents; Screening; Emergency department; Alcohol; Brief intervention; Perceived barriers.

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Resumen

Introducción: El cribado de consumo de alcohol en menores está ampliamente justificado en el ámbito sanitario por la evidencia epidemiológica de consumo y por la especial vulnerabilidad de este colectivo, que además se inicia a edades muy tempranas e ingiere grandes cantidades. Los servicios de urgencias (ED) podrían ser un entorno donde realizar la detección precoz e implementar una intervención breve (IB) por parte de los profesionales.

Objetivo: El objetivo de este estudio es conocer las barreras percibidas por los profesionales sanitarios para implantar con éxito en los servicios de urgencias hospitalarios un protocolo de detección e IB en menores.

Material y métodos: Análisis cualitativo exploratorio mediante grupos focales con preguntas semiestructuradas, flexibles y abiertas para conocer las creencias, actitudes y barreras percibidas por los profesionales de los centros donde se desarrollará un proyecto de cribado de consumo de alcohol e IB en adolescentes que acuden a Urgencias.

Resultados: Las principales barreras percibidas fueron falta de tiempo, sobrecarga de trabajo, desconfianza en la sinceridad de las respuestas, necesidad de protocolos estandarizados de trabajo, desconocimiento de herramientas de cribado validadas y sencillas, falta de entrenamiento/concienciación y dudas médico-legales sobre el consentimiento informado y la confidencialidad del menor.

Conclusiones: Las barreras percibidas para implementar la herramienta de cribado e IB son similares a las descritas por otros autores y sería necesario mejorar la organización de los circuitos asistenciales, no limitar los recursos dedicados a la atención en urgencias y favorecer la motivación y la formación de los profesionales.

Palabras clave: Adolescentes; Cribado; Urgencias; Alcohol; Intervención breve; Barreras percibidas.

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Substance abuse is a serious problem in society with important social, health and economic consequences. In particular, adolescents are one of the most vulnerable age groups, characterized by neurobehavioral changes with rapid development of limbic systems and relatively immature prefrontal cognitive systems that may promote risky behaviors and substance use. Indeed, adolescence represents a distinctive period of vulnerability to substance use initiation and transitions to substance abuse and dependence (Guerri & Pascual, 2010; Rutherford, Mayes & Potenza, 2010). It is known that alcohol consumption before adult age can affect neurocognitive development and lead to physical, psychological and social alterations. Consumption has been associated with traffic accidents, homicides, suicides, early sexual contacts, school failure, mental illnesses and delinquency, among others (Kaul & Coupey, 2002). In this respect, some investigators speculate that the age of first drug use might be considered a risk factor of underlying vulnerability to drug dependence, frequently resulting in a higher probability of increasing the quantity and variety of the drugs consumed (Chen, Storr & Anthony, 2009).

For this reason, the National Strategy for Drugs of Abuse in Spain (2009-2016) (Plan Nacional sobre Drogas, 2009) encourages primary care physicians as well as emergency departments (ED) and medical specialists in the early detection of smokers, alcohol abusers, psychoactive drug users and illicit drugs consumers, and the provision of counseling and brief interventions (BI). There are also plans for developing projects for epidemiological, clinical, basic and social research in minors.

Screening for the consumption of alcohol, tobacco and drugs of abuse is widely justified in risk groups such as minors are, for reasons that include their vulnerability (Guerri & Pascual, 2010; Rutherford, Mayes & Potenza, 2010) and evidence of consumption (ESTUDES 2010). Adolescents have their own alcohol related expectancies and motives for drinking (Monk & Heim, 2016; Mezquita, Stewart, Kuntsche & Grant, 2016) and most risky behaviors remain hidden after a medical consultation. This is why numerous researchers have argued for the use of structured screening tools suited for preventing problem behavior (Tiburcio Sáinz et al., 2016; García Carretero, Novalbos Ruiz, Martínez Delgado, & O'Ferrall González, 2016; Hidalgo Vicario & Redondo Romero, 2007; Committee on Substance Abuse, 2011). The screening, brief intervention, and referral to treatment (SBIRT) model may be well-suited for identifying and intervening in the case of adolescents at risk of developing substance use disorders and those whose substance use puts them at risk. The great effort put into providing information and training in this respect in schools needs to be reinforced in health care services where the message should be supported through clear information and counseling provided to patients. Adolescents do not attend Primary care services as often as they did to pediatric services before the age of fourteen. In addition, alcohol and drug use is related to many factors, including personality traits (Gonzálvez, Espada, Guillén-Riquelme, Secades & Orgilés, 2016), and when adolescents begin to use recreational drugs there are no signs or symptoms that lead them to visit a doctor, and only some of them come as a consequence of abuse or dependence. Consequently, the only contact that adolescents have with health care services is in the ED, which represents, therefore, a critical and unique opportunity to initiate care that targets alcohol and substance-related misuse.

Indeed, it has been shown that screening and BI are among the ten best public health strategies to prevent problems related with alcohol abuse (Babor, et al., 2003). Several studies (Armitage, Rowe, Arden & Harris, 2014; Kelly, Donovan, Chung, Bukstein & Cornelius, 2009; Newton et al., 2011; Cunningham et al., 2012) have obtained good results with BI involving different groups of patients, resulting in a significant decrease in alcohol consumption and also in alcohol abuse related problems, especially in the short-term.

For all the above mentioned reasons, a project was designed to structure, validate and implement a screening and BI model in the ED, which may help health professionals detect early alcohol use/abuse in minors. In the context of this broader project, we first designed a qualitative study to analyze ED physicians' beliefs and attitudes concerning the prevention of alcohol consumption in adolescents as well as to address the perception they have about the barriers and facilitators that may exist to the introduction of screening and BI in their daily routine.

Methods

A qualitative and exploratory analysis was carried out to through interviews and focus groups between January and March 2012. Participants were recruited from the ED staff of the three hospitals already involved in the research project: (H1) Hospital Virgen del Castillo in Yecla, Murcia (south-east Spain), which serves a predominantly semirural or remote rural population and has 100 beds; and the Hospital Virgen de la Arrixaca, Murcia (H2) and Hospital del Mar, Barcelona (H3), both serving largely urban, economically and ethnically diverse areas and are considered among the top twenty hospitals in Spain with 1000 beds and 500 beds, respectively. Firstly, the three ED supervisors were invited to participate in thirty-minute interviews to develop a guide to conduct the focus groups based on the issues described by Millstein & Marcell (2003), which included open-ended semi-structured questions regarding physicians' perception about alcohol use/abuse, practice characteristics, the delivery of primary alcohol abuse–pre-

vention services such as screening or BI, skills, attitudes and beliefs, and finally barriers and facilitators (Table 1).

Next, the physicians already involved in the project, representing the100%, 25% and 30% of the whole body of H1, H2 and H3 ED staff were invited and agreed to participate in the focus groups (n=24).these groups consisted of 11 assistant physicians for H1 with 7 to 28 years of experience, four of them women, 7 assistant physicians (H2) with 6 to 23 years of experience, with only one man in this group and (H3) 3 assistant physicians and 3 final year residents with 4 to 25 years of experience, being four of them women. Physicians that refused to participate in the study cited lack of time or similar. Three 45 minute sessions were held with the focus groups using a similar scheme to the above. Interviews and sessions were entirely recorded and transcribed verbatim after due consent and were later analyzed according to the proposed grounded theory methodology (Glaser and Straus, 1967) by two independent observers who noted the core themes that emerged. Their notes were compared and any discrepancies were resolved by consensus. Each researcher took the lead to identify subthemes. Once coded, we employed a systematic and iterative method of analysis based on the constant comparative method. The direct quotations selected to illustrate the themes raised by participants are indicative both of typical responses and of the diversity of views obtained.

Results

Perception of alcohol consumption

The physicians consulted did not know the adolescent alcohol consumption statistics for Spain, but, in general, their perception was that the prevalence of drinking alcohol is high. The members of FG2 were particularly worried about adolescents who drink large amounts during binge drinking sessions: "a widespread problem, mainly in older adolescents, linked to leisure time at weekends, holidays or birthday parties were even non-habitual consumers ce-

Table 1. *Survey and focus groups.*

Direct questions	Scheme to be followed depending on the answers
What is your perception about the consumption of alcohol and other substances by adolescents of your area?	· Quantitative · Qualitative
Do you perform screening (early detection) for alcohol consumption in adolescents in your daily routine?	· Never · Only when acute intoxication symptoms are present · As part of my daily routine
How do you carry it out?	· Asking the adolescent directly · Asking the companions · Using a standardized tool such as CRAFFT, CAGE, AUDIT · Analyzing alcohol concentration in blood
Once consumption is identified, do you develop any kind of intervention?	· Yes · No
BI - How do you put it into practice? · Do you refer to a different health care center? · Which one? · Do you warn the parents?	· Motivational interviewing · Brief Counseling · Pediatrician · Rehab center · Others
Do you feel yourself trained to detect if adolescents have alcohol use/abuse problems?	
Do you feel yourself trained to detect it with a standardized tool?	
Do you feel yourself trained to practice brief intervention?	
Do you think it would be useful to perform screening in ED as a daily routine?	
Which barriers would you have to face?	· Lack of time/personnel · Doubts about my responsibility in this issue · Doubts about usefulness of screening and BI · Concern about legal implications and informed consent or confidentiality in interventions with minor and guardians · Lack of knowledge/abilities with screening tools · Lack of cooperation /sincerity in minors' answers · Lack of training/specific abilities for the management of adolescents · Lack of standardized work
Facilitators	

lebrate drinking alcohol", the main issue being "the high amount they drink".

Previous experience in screening

Participants only asked patients and those accompanying them about alcohol consumption when they seemed to be intoxicated, when there had been a traffic accident, changes in personal behavior or loss of consciousness: "We ask patients and companions when they seem to be inebriated (...), usually separately as in cases of acute alcohol intoxication they usually come with friends who tell us what they have drunk".

It is important to emphasize that except for two physicians from FG3 (Barcelona), the participants did not know or use any self- report structured screening tools such as CRAFFT, CAGE or AUDIT.

Previous experience in BI

The physicians consulted did not carry out motivational interviewing, but only offered brief counseling in cases of acute alcohol intoxication: "I usually tell them about consumption short-term and long-term risks, mainly in those cases of adolescents who drink in large amounts", "not in cases of slightly intoxicated adolescents that come in after a fight to get the injury reported, these are rapid discharge cases and they do not usually cooperate".

When they were questioned about their skills in the management of probable substance/alcohol users/abusers in adolescents, the physicians mentioned referring the patients to Primary Health Care: "I often recommend parents to make an appointment with the pediatrician", "We refer to Primary Health Care because that is the correct procedure to treat mental illnesses. We are not allowed to refer patients to mental health departments from ED, only real emergencies".

Regarding the information transmitted to the parents, we found different attitudes: participants in many cases cannot inform parents or guardians because "they come alone or with friends", "We only warn the parents if they are under the age of consent", "the parents of adolescent already know if they drink".

Knowledge and screening skills

First, physicians were asked about their ability to detect use/abuse alcohol problems in adolescents, and an analysis of the results points to two opposing ideas, a) they feel able to identify such problems in adolescents: "Yes, we notice that they have problems with alcohol or others drugs of abuse", or b) they do not feel they can identify alcohol problems and is not their duty to do so "No, our medical duty is to diagnose, and discard, stabilize or solve pathologies as soon as possible to be able to continue treating other patients that arrive". When the question was modified and reformulated and the participants were asked whether they would have the ability to detect alcohol use/abuse problems in adolescents using an impartial and structured tool, all participants except two from Barcelona answered they did not know of any validated screening tools such as AUDIT, CAGE or CRAFFT. They also considered they would be able to use them with the appropriate training: "Yes, but provided that it would not seriously affect our work".

Knowledge and BI skills

All the participants felt they were trained and comfortable to carry out brief counseling but occasionally they recognized the need for more training in motivational interviewing. "Yes, most of us are general physicians, which gives us an advantage in the prevention and promotion of health" "We only do brief intervention and counseling usually".

When asked whether it would be useful to apply self-report screening or BI as a daily routine in ED, most participants thought that it would be possible only when adolescents come with acute intoxication although there was general agreement about the advantages of screening: "Useful...yes, of course, but if risky behavior is diagnosed, intervention should be carried out wherever", "Yes, but only if it is not to the detrimental of patients in a serious condition ". Several physicians did not believe that screening should be part of their work and manifested many doubts about their responsibility in this issue: "If the consultation is not related to substance consumption it would be very strange to focus on this topic", "Well, actually pediatricians should take responsibility for this".

Barriers

Two important barriers to the effectiveness of this programme seemed to be lack of time and lack of personnel: "For example, now we are in the middle of an influenza outbreak and we are swamped", "There are moments when it would be literally impossible". Furthermore, this feeling recurs in all the replies about the feasibility of implementing screening and BI in the ED: "If it does not reduce attention to serious patients", "If it does not take too much time", "if we have enough time", "if the night is quiet", "if we are not swamped", etc. Also there was some fear about how parents may react after finding out that they are screening for alcohol consumption in minors, and there were doubts about the need for the parents' consent: "Maybe the parents could feel annoyed with the fact that we asked their sons or daughters about substance use". The lack of screening instruments or the physicians' knowledge and skills in screening and BI were not a big concern and neither were perceived as barriers by the participants in this research. Moreover, they thought it would be easy to implement once trained. Finally, other barriers mentioned reflected physicians' feelings, their lack of involvement or sensivity for this issue, which was usually justified by the

lack of time or truthfulness of the adolescents' responses: "Some patients give false answers so and we do not want to waste our time".

Facilitators

Most of the facilitators perceived were expressed as needs and were reported at the end of the interviews and the focus groups. It was thought essential to ensure appropriate confidentiality for the patients and to build trust between patients and physicians. The correct environment, reliable, simple, short structured instruments and training in the treatment of adolescents with problems related to use/abuse of alcohol and other drugs were mentioned.

One of the physicians mentioned their "authority" in ED, which probably differed from that of parents or teachers, and was seen as an advantage which could result in a higher probability of honest answers due to the closer personal links that exist between the Primary Health Care physicians/parents/teachers and adolescents.

Similarly hospitals were defined as ideal: "When they come because of drunkenness, they feel embarrassed and frightened when they are discharged, and that might help in any intervention".

Discussion

Participants perceived alcohol consumption in adolescents as a huge problem mainly because of the large amounts drunk. However, they did not know about the prevalence of consumption in Spain which, perhaps, should be more widely available. Enquiry into adolescents' alcohol consumption was only made in situations of probable acute intoxication, which represents a lost opportunity. Such screening involves direct questions about consumption put to the patients and companions. This is a mistake since it has been shown that self-report consumption by adolescents may be seriously underreported, especially if the adolescents are accompanied by their parents and are concerned about confidentiality, potential risks of drug-use admission, or perhaps anxiety that their parents might become aware of their drug use, all of which may explain why adolescents simply prefer to just say "I don't." (Delaney-Black et al., 2010; Elliot & Larson, 2004). There are structured screening instruments like AUDIT, CAGE or CRAFFT which have been found to have good discriminative properties for determining the presence of alcohol use disorders among 14–18 years old adolescents in primary care or ED (Kelly, Donovan, Chung, Bukstein & Cornelius, 2009; Newton et al., 2011). This agrees with a study which showed that no physicians used the CRAFFT screening tool, a well-validated instrument for adolescent alcohol use and that about a fifth of physicians were identifying adolescent alcohol consumption using the CAGE questionnaire, a screening tool often used in adult populations (Gordon, Ettaro, Rodríguez, Mocik & Clark, 2011). In this sense, perhaps more emphasis should be given to the relation between alcohol and adolescents during medical training as previous studies have suggested (Danielson, Rivara, Gentilello & Maier 1999; Miller, Naimi, Brewer & Jones, 2007). It has previously been reported that lack of resources and awareness negatively affect routine screening (Matali et al., 2009).

On the other hand, there are more ways to estimate alcohol consumption like ethanol biomarkers (ethyl glucuronide) in hair but these analyses are expensive and require lengthy sample pretreatment, which is no always available in the ED. Also an analysis of nails has been found comparable and in some cases superior to hair for measuring the same. Nevertheless, ethanol biomarkers are only reliable in cases of daily alcohol consumption in large amounts, which does not reflect the profile of adolescent behavior (Morini, Politi & Polettini, 2009).

As regards intervention methodology, brief counseling was the only way put into effect, although it has been previously proposed that more complex actions such as motivational interviewing led to significantly less alcohol use in a one-year follow-up study (Clark & Moss, 2010). Most physicians answered they had the ability to use motivational interviewing, which agrees with previous research as regard the need for more time, follow-up and training of health-care personnel. Furthermore, more studies such as that of Monti et al. (1999), which checked the efficacy of interventions carried out by different physicians, are needed.

Our research shows that all the participants refer their patients to Primary Health Care and inform parents or guardians if they are present at discharge, depending on the minor's age. Recent findings indicated that, in six-month follow-up, a group that received BI involving parents had significantly better outcomes in terms of alcohol, binge drinking and days of drug use compared with an assessment only group, and fewer days of drinking compared with a BI alone group (Mitchell, Gryczynski, O'Grady & Schwartz, 2013).

Several studies have proposed that the delivery of alcohol-related preventive services to adolescents varies as a function of physicians' attitudes and beliefs regarding prevention and practice. Moreover, those with more positive beliefs as regard the importance of prevention, agree with screening at an early age and feel more comfortable with their adolescent alcohol-management skills delivered during alcohol screening (Marcell, Halpern-Felsher, Coriell & Millstein, 2002). This was evident in our results, when participants gave their answers concerning the feasibility of implementing screening and BI, and which depended on the different barriers and facilitators perceived, which we shall mention below.

A variety of "barriers" were mentioned, in agreement with previous studies (Millstein & Marcell, 2003; Aristeiguieta, 2000): lack of time, overload of work for seasonal reasons, mistrust in the sincerity of the answers, lack of training/awareness and legal concerns about informed consent and confidentiality. In contrast, the lack of standardized work protocols, and physicians' abilities and knowledge in screening and BI differed from previous research (Beich, Gannik & Malterud, 2002) since these aspects were not perceived as barriers because they were considered easy to put into practice with the correct training. These barriers are the same as those mentioned previously by other authors in different health settings for the correct implementation of SBIRT (Gordon, Ettaro, Rodríguez, Mocik & Clark, 2011). Training is an important issue as previous findings reveal that Primary Health Care physicians, suitably trained in alcohol and screening, apply considerably more SBIRT in their daily routine (Ozer et al., 2011). Perhaps one of the barriers given least attention is the lack of awareness about legal concerns related to informed consent and confidentiality, as pointed by earlier studies which postulate that some physicians think that consulting patients about alcohol consumption is an invasion of privacy (Bradley, Boekeloo & Novik, 2005; Schermer et al., 2003). This could be related with the nature of this health setting, which is more focused on the treatment of acute intoxications than on health promotion.

Finally, it should be highlighted that economic costs and reimbursement were not perceived as barriers in our research, which is contrary to the literature consulted about SBIRT implementation in different countries. In our opinion this could be a consequence of the free and universal Health system currently available in Spain (Danielson, Rivara, Gentilello & Maier 1999; Aristeiguieta, 2000; Schermer et al., 2003).

It is really important that physicians be aware of the patterns of use and abuse of alcohol and other substances by adolescents in order to warn their patients about the consequences in every health setting. The perceived barriers to implementing screening and BI in ED that are evident in this study are similar to those mentioned by other authors (Platt et al., 2016) in Primary Care Services and are mainly related to the lack of time and personnel, and concerns about legal implications related with informed consent or confidentiality. It should be clear that prevention is everyone's responsibility and it is necessary to fight against the skepticism of some physicians as regard the capacity of our system to deal with the consequences of substance abuse in adolescents.

Adolescents usually attend the ED in cases of acute intoxication, which should facilitate interventions focused on promoting abstinence and preventing binge drinking (Kelleher, Renaud, Ehrlich & Burd, 2013). However, preventive interventions (and research) in ED are difficult because doctors feel under pressure to provide care, which may result in limitations to data collection and also the inefficacy of any SBIRT implementations undertaken (Van Hook et al., 2007).

In this sense, it seems necessary to improve health care distribution/organization without limiting the resources provided to ED care, to ensure physician motivation and to involve all health personnel. Referral to treatment in cases where there is a suspicion of alcohol abuse is another key point that may be highlighted and electronic health records should include screening data and help in the continuation of treatment when necessary.

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Conflicts of Interest

There are no conflicts of interest to disclose. All the authors contributed to and have approved the final manuscript.

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