

Identifying the gap between need and intervention for alcohol use disorders in Europe

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ABSTRACT

Aims A literature review of existing research on the prevalence of alcohol use disorders (AUDs) and availability of alcohol interventions in Europe was conducted. The review also explored what is known about the gap between need and provision of alcohol interventions in Europe. **Methods** The review search strategy included: (i) descriptive studies of alcohol intervention systems in Europe; (ii) studies of alcohol service provision in Europe; and (iii) studies of prevalence of AUD and alcohol needs assessment in Europe. **Results** Europe has a relatively high level of alcohol consumption and the resulting disabilities are the highest in the world. Most research on implementation of alcohol interventions in Europe has been restricted to screening and brief interventions. Alcohol needs assessment methodology has been developed but has not been applied in comparative studies across countries in Europe. **Conclusions** This review points to key gaps in knowledge related to alcohol interventions in Europe. There is a lack of comparative data on variations in alcohol treatment systems across European countries and there is also a lack of comparative data on the prevalence of alcohol use disorders across European countries and the relative gap between need and access to treatment. The forthcoming Alcohol Measures for Public Health Research Alliance (AMPHORA) research project work package on 'Early identification and treatment' aims to address these gaps.

Keywords Alcohol, alcohol needs assessment, Europe, prevalence, public health, treatment provision.

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INTRODUCTION

In global terms, Europe has a high level of alcohol consumption and the resulting alcohol-related disabilities are the highest in the world [1]. Alcohol use is the second leading cause of disability in Europe after tobacco use and the harm related to alcohol is compounded by deprivation [1]. Alcohol incurs considerable costs to society: estimated to be up to €760 billion in 2003 [2]. We conducted a literature review of existing research on the prevalence of alcohol use disorders (AUDs) and the availability of alcohol interventions in Europe. The review also explored what is known about the gap between need and provision of alcohol interventions in Europe. The review aimed to

identify gaps in knowledge relevant to the development of public health policy as a precursor to conducting the forthcoming Alcohol Measures for Public Health Research Alliance (AMPHORA) project work package on 'Early identification and treatment'.

Methods

We searched for English-language studies up to June 2010 in Medline/PubMed, PsycINFO, Web of Science, Google Scholar and Social Policy and Practice, and integrated these findings with a cumulative review of reference lists of all relevant publications. The following search terms were used to search the above databases:

needs assessment, specialist alcohol services, alcohol treatment systems, gap in service provision, alcohol dependence prevalence, prevalence of alcohol use disorders, capacity of alcohol treatment services, implementation, barriers to implementation and staff attitudes. Only alcohol studies referring to Europe have been selected and included in this review.

Alcohol use disorders

AUDs have been defined by the World Health Organization (WHO) International Classification of Mental Disorders, 10th revision (ICD-10) [3], which includes harmful drinking and alcohol dependence. Although hazardous drinking is not an AUD within ICD-10, it is considered by WHO in its work on alcohol policy. The majority of the population in Europe consumes alcohol without serious adverse effects. However, people who drink excessively can experience a wide range of harms. Hazardous drinking is defined as drinking alcohol at a level likely to cause harm in the future but not currently causing harm, whereas harmful drinking is defined as drinking at a level already causing physical or psychological harm.

WHO uses a working definition of hazardous alcohol use of 20–40 g of alcohol a day for women and 40–60 g for men, and for harmful drinking a regular average consumption of >40 g per day for women and >60 g per day for men [4]. Alcohol dependence is defined as meeting three criteria from a range of elements of alcohol dependence, including tolerance, withdrawal, craving, relief drinking, neglect of alternative pleasures and persistence despite negative consequences [3]. However, it is important to note that AUDs exist on a continuum of severity, with no clear-cut points at which they can be said to be absent or present, moderate or severe [5,6].

Alcohol interventions

Individually directed alcohol interventions can be divided conceptually into opportunistic screening and brief interventions delivered by non-specialist health-care personnel, and alcohol treatment delivered by specialists [6].

Opportunistic screening

Opportunistic screening refers to a range of methods of AUD case identification in people presenting to a range of health and social care settings who are not seeking help for AUDs. Identification approaches range from screening all patients to targeted approaches in specific populations, or in health complaints linked to excessive alcohol use (e.g. accidents, hypertension) via short validated questionnaires [e.g. the Alcohol Use disorders Identification Test (AUDIT) questionnaire; [7]]. Screening or case identification is followed by brief intervention, which can

range from 5 minutes of brief advice to up to four sessions of extended brief intervention involving motivational principles, potentially including follow-up and monitoring [6]. There is a lack of evidence concerning the optimal level of brief intervention [8].

Numerous systematic reviews have found screening and brief interventions to be effective in primary care and other health settings [8], including studies in emergency departments [8,9]. There is also evidence that these interventions are highly cost-effective [10,11], and they have been recommended by the European Commission in its strategy to support Member States to reduce alcohol-related harm [12]. These interventions are most effective in non-treatment-seeking hazardous and harmful drinkers, and less effective in alcohol-dependent drinkers [13].

Brief interventions delivered by non-specialist health-care personnel

Specialist alcohol treatment encompasses a wide range and intensity of interventions from one or more sessions of motivational enhancement therapy through to intensive residential rehabilitation lasting up to several months [14]. What these interventions have in common is that they are provided for patients seeking help for an AUD, primarily alcohol dependence, and are delivered by specialist staff trained to provide them [6]. Various specialist interventions have been identified as both effective and cost-effective [6,14,15]. The need for coordinated systems of care for people with AUDs, offering a stepped-care approach to deliver the most appropriate interventions to the in-need population, has also been emphasized [5,6].

Specialist treatment is targeted primarily at people with alcohol dependence and the more intensive forms are generally for people with more severe alcohol dependence and/or psychiatric comorbidities or social problems. However, the provision of specialist services is heterogeneous, and varies considerably from country to country. It is also likely that the threshold for access to specialist alcohol treatment will vary geographically depending on a number of factors, including national and local policies and practice, availability of services, funding, the philosophy of care and non-specialist referral practices. One method of classifying specialist treatment is provided by the alcohol service framework in England [16].

This work package is concerned with those services falling within tiers 1–4 in Models of Care for Alcohol Misusers (MOCAM) [16], which include the full range of interventions from brief interventions delivered by generic health personnel to hazardous drinkers through to higher-intensity interventions delivered by specialist practitioners in community or residential settings for people with severe alcohol dependence.

It is important to note that many people with AUDs also seek help and support from mutual aid organizations such as Alcoholics Anonymous and family clubs, and the availability of these organizations also varies geographically. However, the impact of mutual aid and self-help organizations is outside the scope of this review.

Alcohol needs assessment

Health-care needs assessment is the systematic approach to ensuring that health service resources are used most efficiently to meet the health needs of the population. In Canada, Rush [17] presented a model of alcohol needs assessment which has been influential internationally. This model examines the gap between the level of 'need' for alcohol intervention in the general population and the extent to which that need is met by the provision of access to treatment services. In Rush's model, 10% of those in need of alcohol treatment gaining access to treatment per annum is regarded as a 'low' level of access and 20% a 'high' level of access. This methodology included several assumptions about the size of the in-need population, the process of referral to various agencies and treatment effectiveness. In relation to 'need', Rush used proxy measures of prevalence rather than direct measures (such as surveys). The methodology recommended by Cook [18], offers a pragmatic method of needs assessment which has been employed in two recent national needs assessments in the United Kingdom [19,20]. These methods differ from Rush's model in various ways, including the definitions of need and access.

There are several methodological challenges in needs assessment. 'Need' can be defined as 'the capacity to benefit' from a health-care intervention. This requires that an effective intervention is available to meet the needs [21], which is the case in relation to AUDs. However, alcohol interventions are not universally effective for all who receive them. Further, AUDs have a substantial natural remission rate, greater for hazardous and harmful drinking than alcohol dependence and greater for younger than older people [22]. Of those who need alcohol interventions not everyone will wish to access them, and some will disengage from treatment prematurely. In the absence of clear evidence on who is most likely to benefit, alcohol-related need is defined typically in terms of 'the number of people in the general population with an alcohol use disorder who could potentially benefit from intervention' [19].

Of the people who need treatment, there are several factors which might influence whether or not they actually access treatment. Not everyone who needs treatment is identified or referred for treatment by, for example, primary care personnel. Identification and referral rates are generally low in the United Kingdom, even for people

with alcohol dependence [23]. Even if an individual is identified as being in need of treatment, they may not be willing to be referred, or if accepting referral they may not actually attend. This can be viewed as the potential and actual 'demand' for treatment [18,19]. Hence, even if treatment is widely available, factors affecting demand may limit the level of access. Therefore, these factors are highly relevant to improving access to treatment. However, even if demand for treatment is high and services either lack capacity or are poorly responsive to help-seeking (e.g. long waiting times, limited opening hours, lack of child-care facilities), access will be limited; therefore the number of people who actually access treatment is the acid test of the functionality of the treatment system.

Access to treatment is defined typically as 'the number of people with an alcohol use disorder who access intervention within a given year' [19]. The gap between need and access is referred to as the Prevalence Service Utilization Ratio (PSUR): the ratio between need and access as defined above [19]. The PSUR can be expressed as a numerical estimate of the gap at a local, national or international level. It can also be expressed in terms of specific groups such as age, gender or ethnicity [20]. Given the methodological limitations outlined above, PSUR should be seen primarily as a relative concept, with the utility of comparing relative levels of access in different localities or countries or between demographic groups, using the same methodology, rather than there being particular value in applying absolute levels to service planning [20].

Rush goes even further in defining 'supply' of treatment to include estimation of the proportion of people who actually complete a treatment course as planned, and the number who gain benefit from treatment [17]. In practice, in alcohol needs assessment (including in Rush's work) this tends to be based on published estimates of typical dropout and follow-up outcome rates rather than data actually collected by agencies in a treatment system. This makes the rate of access, which can be measured more readily, a more practical method of measuring supply of treatment in needs assessment [18–20].

Using this methodology, a recent needs assessment in England found that only one in 18 people with alcohol dependence accessed treatment per annum, with regional variation ranging from one in 12 to one in 102 [19]. Similarly, several studies have shown that only a small minority of hazardous and harmful drinkers who could benefit from brief interventions were identified or treated in primary care [23,24]. It has been reported that the majority of general practitioners (GPs) in England may be missing as many as 98% of the hazardous and harmful drinkers who present to primary care each year [23].

The European context

There has been no European Union (EU)-wide alcohol needs assessment conducted to establish the PSUR for AUD in different countries using a common methodology. However, some countries have conducted previous alcohol needs assessments [19,20]. Recently there has been growing interest in the question of how well health services meet the alcohol needs of the community in Europe. A number of recent studies, particularly the global burden of disease studies [1] and initiatives such as the WHO ministerial conference on mental health, and the creation of networks such as the European Network on Mental Health, have led to an increased interest in mental health as a public health priority.

In 1998 WHO and the National Institute of Mental Health established an international consortium on psychiatric epidemiology (ICPE), which aims to study the prevalence of psychiatric morbidity across the world using the Composite International Diagnostic Interview (CIDI). The European Commission published a comprehensive description and comparison of mental health in EU countries [12]. However, the information relevant to AUDs is still limited by virtue of limited comparable data sources across EU countries, with some exceptions (e.g. [25]).

In addition to using scarce epidemiological data, several alternative methods are being applied such as the United States Agency for International Development (USAID) 'quick scan' method using qualitative and quantitative methods to estimate the gap between need and supply of treatment.

Despite this, needs assessment in mental health remains a relatively under-developed field internationally; but from what is known already from studies such as the *State of Mental Health in the European Union* it is apparent that health-care utilization varies remarkably across countries, as does the nature of services provided [12]. Political, financial and ethical considerations are likely to play a substantial role in determining the supply and nature of services rather than the actual level of need in the community. In most countries with a managed health-care system, cost-saving motives may play an important role in shaping the size and nature of services for mental health. In addition, it has been observed that mental health services have a tendency to be provided more effectively for the less severe mental health disorders rather than the more severe. This is reflected in Europe, where there is a European policy on alcohol which deals with prevention but not with specialist treatment [12].

European research on alcohol interventions

The WHO's CHOICE (Choosing Interventions that are Cost Effective) project estimated that the impact of deliv-

ering brief alcohol interventions to 25% of the at-risk population in the EU would avoid 408 000 years of disability and save €740 million [2]. However, several barriers to the implementation of brief alcohol interventions, including attitudes, training and support of primary care practitioners, have been identified [26,27]. This can be improved by provision of appropriate training and support [24], but training and support needs to be tailored to individual practitioner needs and attitudes [28].

Recent collaborative research projects have studied alcohol treatment policy in most of the EU countries. Under the umbrella of the Primary Health Care European Project on Alcohol (PHEPA Project), a questionnaire has been developed to assess the availability of services for hazardous and harmful alcohol consumption. Data were obtained from key informants from 17 European countries [27]. Only 57% of the Member States had an official policy on the management of AUDs which systematically included support for interventions in primary health care and specialized treatment facilities. Only 50% of countries reported specific funding for treatment, quality of care was monitored in 43% and cost-effectiveness was reviewed in only two countries [27]. While guidelines for brief interventions have been developed widely across Europe, only 21% of countries reported studies of adherence to guidelines.

Training in alcohol intervention for undergraduate health professionals is relatively scarce, although there is more available for postgraduate health professionals, with 71% of physicians and 42% of nurses in primary care reporting access to Continuing Medical Education (CME) courses in management of AUDs. Further, this and other studies have found access to alcohol treatment is low across health settings in Europe [28,29].

Rehm *et al.* [25] provided an overview of the epidemiology of AUDs in Europe. Based on a search of publications from 1990 they found wide geographic variation in the prevalence of alcohol dependence of 6.1% for males [interquartile range (IQR) 0.4–7.5%] and 1.1% for females (IQR 0.1–2.1%). The prevalence of hazardous and harmful alcohol use was also highly variable across EU countries. However, the number of countries with comparable AUD prevalence data was limited, and this research needs to be updated, given that some of the data were collected nearly 20 years ago and may not represent current prevalence.

WHAT RESEARCH QUESTIONS REMAIN TO BE ANSWERED?

Our literature review has identified gaps in knowledge about the prevalence of AUDs and the availability of alcohol interventions in Europe. Within the AMPHORA project work package on 'Early identification and

treatment', we aim to evaluate the public health impact of screening and brief interventions and treatment in a variety of health settings across Europe. Further, we aim to conduct a needs assessment for AUDs across various European countries to assess the gap between need and access to interventions, and explore the factors that may be responsible for differences between countries. As a result, an overarching aim of the research is to inform public health policy in Europe in optimal strategies for effective implementation of alcohol interventions as part of the wider AMPHORA aims. Through this we aim to identify health inequalities for European citizens in availability of and access to interventions for AUDs.

Research questions

More specifically, AMPHORA will address the following research questions: (i) what are the characteristics of the alcohol intervention systems in a range of European countries; (ii) what is the alcohol service provision in Europe; and (iii) what is the prevalence of AUD and gap of alcohol interventions access in Europe?

Question 1: what are the characteristics of the alcohol intervention systems in a range of European countries?

As described in the literature review, some work has already taken place in attempting to describe the provision of alcohol services in Europe. However, this has been restricted largely to studies of the implementation of screening and brief intervention for hazardous and harmful drinkers as part of the WHO phases III and IV and PHEPA projects [24,26,27]. Little is known about the provision of specialist alcohol treatment services and how it varies between European countries. Further, there is an incomplete understanding of the factors that facilitate or hinder the implementation of alcohol interventions, and hence their public health impact.

Question 2: what is the alcohol intervention service provision in Europe?

An estimate of the number of people with AUDs receiving alcohol interventions across several European countries is needed to guide European public health alcohol strategy. AMPHORA will estimate this in primary care, emergency departments (ED) and specialist alcohol treatment services to allow a gap analysis. AMPHORA also aims to identify the barriers and facilitators to service provision in primary care and ED settings across a range of European countries.

Question 3: what is the prevalence of AUD and gap in access to alcohol interventions across a range of European countries?

Our literature review highlighted a lack of comparable data on the gap in need and access to alcohol treatment in

Europe. Although several national and local studies have been conducted, variations in methodology preclude between-country comparisons. AMPHORA aims to identify the prevalence of AUDs across European countries, and to conduct a needs assessment of the gap between need and access to interventions.

CONCLUSIONS

Our review highlights several gaps in understanding of the nature of service provision for AUDs in Europe. This includes a lack of comparable data on the prevalence of AUD across European countries, the nature and availability of service provision both in primary care and specialist treatment services, and hence the relative gap between need and provision of services across Europe is currently unknown. The AMPHORA project work package on 'Early identification and treatment' aims to fill these gaps through a series of related studies to conduct the first international alcohol needs assessment in Europe. The methodology to address these questions will be addressed in much greater detail within the forthcoming AMPHORA project.

It represents another key step in a long research journey towards understanding the public health impact of individually directed alcohol interventions and how they should be facilitated and supported to improve public health in Europe. In particular, it will be important to identify inequalities among European citizens concerning the availability of services to treat AUD across Europe, which is a key priority for the European Union [12].

Declarations of interest

None.

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