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Perceived Unmet Need for Alcohol and Drug Use Treatments and Future Use of Services: Results from a Longitudinal Study*

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Abstract

BACKGROUND—This study assessed the association of perceived need for treatment of and perceived barriers to treatments for substance use disorder (SUD) with subsequent use of these treatments in community settings.

METHODS—Drawing on data from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), we examined the association of perceived need and barriers to SUD treatments in waves 1 of NESARC (2001–2002; n=43,093) with the subsequent use of these treatments in the follow-up wave 2 (2004–2005; n=34,625).

RESULTS—Only 8.5% (n=195) of the 2,333 NESARC participants with an untreated 12-month SUD in wave 1 perceived a need for SUD treatment. Participants who reported a perceived need were more likely to use these services in follow-up than those who did not report such a need (14.8% vs. 4.9%, adjusted odds ratio [aOR]=3.16, 95% confidence intervals [CI]=1.70–5.90, P<0.001). Among participants who perceived a need, those who reported pessimistic attitudes towards treatments as a barrier were less likely than others to use services in follow-up (aOR=0.08, 95% CI=0.01–0.73, P=0.027). Other barriers, including financial barriers and stigma were not significantly associated with treatment seeking.

CONCLUSIONS—The findings suggest the need for a two-pronged approach to improving treatment seeking for SUD in community settings: one focusing on enhancing recognition of these disorders, the other focusing on educating potential consumers regarding the benefits of SUD treatments.

Keywords

Perceived need for treatment; barriers to care; help-seeking

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1. INTRODUCTION

A consistent finding from many general population epidemiological surveys in the US and other countries is that a large majority of individuals with substance use disorders (SUD) do not receive treatment for these problems (Grella et al., 2009; Hasin and Grant, 1995; Oleski et al., 2010; Regier et al., 1993; Substance Abuse and Mental Health Services Administration, 2011). While many of these individuals recover from the substance disorder without the use of formal treatment services (Dawson et al., 2006; 2005), many others continue to abuse or remain dependent on alcohol or drugs with substantial individual and social consequences (Harris and Barraclough, 1998; Kessler et al., 1997; 1995; 1998).

When questioned about their use of services, a large majority of individuals with SUD report not needing treatment (Edlund et al., 2006; Mojtabai et al., 2002; Oleski et al., 2010). Even among those who do report having perceived a need, a substantial proportion report not seeking treatment because of structural and financial barriers that hinder access to services or attitudinal factors that make treatment seeking unappealing (Grant, 1997; Mojtabai et al., 2011; Perron et al., 2009; Ridgely et al., 1990; Sareen et al., 2007; Wells et al., 2007). Better understanding of the effects of these factors on treatment seeking is an important first step towards developing strategies for enhancing the use of the needed services in community settings. Such data could help identify relevant targets for interventions and information campaigns aimed at improving access and utilization of SUD services. Yet, few studies have examined barriers to SUD services and almost all studies on the association of perceived need and barriers with treatment seeking are based on cross-sectional data. It is difficult to infer causal relationships from such data as the temporal order between perceived need and help seeking cannot be established in cross-sectional studies and self reports of barriers to treatments may be biased by actual treatment seeking in the past. Prospective data on the association of barriers with future treatment seeking would provide less biased data under these circumstances. To our knowledge no past studies have examined the relationship of perceived need and perceived barriers with the subsequent use of SUD services in a representative general population sample.

In this study we use data from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), a large and representative longitudinal population survey of US adults, to examine the association of perceived unmet need and various structural and attitudinal barriers with future use of SUD services. More specifically, we assess whether perceived need for professional help is associated with increased likelihood of service use in a 3-year follow-up study of individuals who met the criteria for alcohol and/or non-alcohol drug abuse or dependence at baseline and who had not received any SUD treatments in the past. We also assess the association of specific structural (including financial) and attitudinal barriers with the use of SUD services among individuals who had perceived a need for such services. We hypothesize that perceived need is significantly and positively associated with subsequent service use and that attitudinal barriers, which are the most common group of reported barriers in cross-sectional studies (Grant, 1997), are the strongest negative predictors of subsequent service use. A previous study based on the baseline NESARC sample examined the prevalence of service use, perceived need and barriers to care among participants with alcohol disorders (Oleski et al., 2010). The present study expands the sample to include all substance disorders and examines the association of baseline perceived need and barriers with follow-up service use.

2. METHODS

2. 1. Sample

The design and the sample characteristics of the NESARC have been previously described (Grant et al., 2009; 2004a; 2004b; Hasin et al., 2005). Briefly, the NESARC is a survey of the US general population, including residents of Hawaii and Alaska, which was conducted by the National Institute on Alcohol Abuse and Alcoholism. The interviews were completed in face-to-face encounters with the participants. The NESARC sample was weighted to adjust for the unequal probabilities of selection and to provide nationally representative estimates.

NESARC wave 1 (baseline) was fielded between 2001 and 2002 and included 43,093 participants 18 years of age and older. Of these, 39,959 were eligible for wave 2 (follow-up) interviews. Ineligible respondents included those who at the time of the follow-up interview were deceased, deported, mentally or physically impaired or on active military duty. A total of 34,625 of eligible wave 1 participants were successfully followed-up in the wave 2 survey between 2004 and 2005 and provided information on their smoking behavior. The response rates for wave 1 and eligible wave 2 surveys were 81% and 87% respectively (Grant et al., 2009).

The sample for the analyses of perceived need was comprised of 2,333 NESARC participants with a 12-month DSM-IV SUD and no past history of SUD treatment at the time of the baseline interview who reported on SUD service use between the two survey waves.

2. 2. Assessments

Substance use disorders were ascertained using DSM-IV diagnostic criteria operationalized in the Alcohol Use Disorder and Associated Disabilities Interview Schedule-*DSM-IV* version (AUDADIS-IV) (Chatterji et al., 1997; Grant et al., 2003; Hasin et al., 1997; Ruan et al., 2008) administered both at baseline and follow-up interviews. For this study, SUD included abuse and/or dependence on alcohol, cannabis, crack/cocaine, hallucinogens, sedatives, tranquilizers, stimulants, heroin and other narcotics. Non-alcohol drug use disorders were combined. In the multivariate analyses (see below) we included dichotomous variables identifying alcohol vs. non-alcohol drug disorders and abuse of vs. dependence on any substances.

Mood, anxiety and personality disorders were similarly ascertained using the DSM-IV criteria operationalized in AUDADIS-IV. Mood disorders included major depressive disorder, dysthymia and bipolar disorder. Anxiety disorders included generalized anxiety disorder, panic disorder, social phobia and simple phobia. Personality disorders assessed in baseline NESARC included antisocial, avoidant, dependent, obsessive-compulsive, paranoid, schizoid and histrionic personality disorders. Mood and anxiety disorder comorbidity was dichotomized for this study into none vs. any. Personality disorder comorbidity was similarly dichotomized.

Perceived need for SUD treatment was assessed using a question worded as follows: "Was there ever a time when you thought you should see a doctor, counselor, or other health professional or seek any other help for your [drinking, drug use], but you didn't go?" Separate questions were asked for alcohol and drugs. Follow-up questions asked if this happened in the past 12 months or before the past 12 months.

SUD service use was ascertained using a question worded as follows: "Since your last interview in (month/year), have you gone anywhere or seen anyone for a reason that was

related in any way to your [drinking, drug use] – a physician, counselor, Alcoholics Anonymous, or any other community agency or professional?” Separate questions were asked for alcohol and drugs. Follow-up questions asked if this happened in the past 12 months or before the past 12 months.

Barriers were assessed by asking the participants who reported that they perceived a need but did not seek any professional help as to the reason why they did not do so. Participants were asked to identify the reason or reasons from a list of 27 such reasons¹. These reports were categorized into 6 groups of barriers by the authors based on the content of the statements. These included: 1) financial barriers (health insurance did not cover; could not afford paying the bill), 2) fear of stigma and social consequences (was too embarrassed to discuss substance problems with anyone; was afraid of what boss, friends, family or others would think; was afraid of losing job; hated answering personal questions), 3) fear of treatment (was afraid of treatment; was afraid of being put in hospital), 4) treatment pessimism (didn't think anyone could help; tried getting help before but it didn't work), 5) minimizing problem/self-reliance (thought the problem would get better by itself; thought should be strong to handle alone; family thought the participant should go to treatment but not the participant himself/herself; didn't think drinking was serious enough; didn't want to go), and 6) other structural barriers (had to wait too long; couldn't arrange child-care; didn't know any place to go for help; didn't have any way to get there; didn't have time; the hours were inconvenient; cannot speak English very well).

In addition, socio-demographic variables including age, sex, race-ethnicity (non-Hispanic white, non-Hispanic black, Hispanic and other), and health insurance were assessed in NESARC and included in the multivariate analyses. NESARC assessed four types of health insurance including private, Medicaid, Medicare, and CHAMPUS/CHAMPVA/VA/other military. Health insurance coverage for this study was dichotomized into none of the above insurance types vs. any type of health insurance.

2. 3. Analyses

Analyses were conducted in two stages. In the first stage, we assessed association of perceived need for treatment at wave 1 with the use of any SUD services between baseline and follow-up. All participants with 12-month SUD who had not used any SUD services at the time of baseline assessment were included in these analyses. Bivariate and multivariate logistic regression analyses were used to assess association of perceived need with SUD service use during the follow-up period. Multivariate analyses adjusted for age, sex, race/ethnicity, type of substance disorder (alcohol vs. non-alcohol drug; abuse vs. dependence), mood or anxiety disorder comorbidity, personality disorder comorbidity, and health insurance.

In the second stage of the analyses, we assessed the association of specific groups of barriers with treatment seeking among participants with 12-month SUD who reported an unmet perceived need for such treatment at baseline. Bivariate and multivariate logistic regression analyses were used to assess these relationships. These analyses were limited to 195 participants who had not used any SUD services at baseline but reported a perceived need for such services. All analyses were conducted using the STATA 12 software (StataCorp, 2008) and adjusted for survey weights, clustering, and stratification of data. All percentages reported are weighted.

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3. RESULTS

3. 1. Association of perceived need with SUD service use

Of the 2,333 wave 1 NESARC participants with 12-month SUD and no past history of treatment who were followed at wave 2, a total of 195 (8.5%) reported a perceived need for SUD treatment; 2,138 (91.5%) did not perceive such a need. Twenty-five (14.8%) of the 195 who perceived a need at baseline subsequently used SUD services during the follow-up interval compared to 87 (4.9%) of the 2,138 who did not perceive a need, suggesting a strong association between perceived need and future use of SUD services (odds ratio [OR]=3.37, 95% confidence interval [CI]=1.94-5.87, $P<0.001$, Table 1). The association persisted in a multivariate analysis adjusting for sociodemographic characteristics of participants, type of substance disorder (dependence vs. abuse), type of substance (alcohol vs. non-alcohol drugs), psychiatric comorbidity and health insurance (adjusted Odds Ratio [aOR]=3.16, 95% CI=1.70-5.90, $P<0.001$, Table 1).

Compared to participants who did not use SUD services, those who did use such services were more likely to be male, to meet the criteria for substance dependence vs. abuse, to use both alcohol and non-alcohol drugs vs. alcohol only and to have comorbid mood or anxiety disorders. However, service users were less likely than non-users to be in the 30-49 years age range (Table 1). The differences with regard to age, sex and type of substance persisted in the multivariate model.

3. 2. Association of perceived barriers with SUD treatment seeking

Perceived barriers to SUD treatments were only assessed in the 195 participants who had not used any SUD services at baseline but reported a perceived need for such services.

Therefore the analyses for the association of these barriers with future service use were limited to these participants. The most common group of barriers were attitudes of self-reliance (e.g., thought should be strong enough to handle alone) or minimizing the substance problem (e.g., didn't think drinking was serious enough), followed by stigma or fear of social consequences, financial and other structural barriers, fear of treatment and treatment pessimism.

The analyses for the association of different barriers with treatment seeking was limited by the relatively small number of participants who reported a perceived need for treatment at baseline and used SUD services at follow-up. Among the different groups of barriers, only treatment pessimism was significantly and negatively associated with future use of SUD treatments. Only 1 of the 21 who reported treatment pessimism as a reason for not using needed SUD services used any such services in the follow-up period, compared to 24 (16.3%) out of the 174 who did not report treatment pessimism as a reason (OR=0.07, 95% CI=0.01-0.64, $P=0.020$, Table 2). This association persisted in multivariate analysis adjusting for socio-demographic characteristics of participants, type of substance disorder (abuse vs. dependence), type of substance (alcohol vs. non-alcohol drugs), psychiatric comorbidity and health insurance (adjusted OR=0.08, 95% CI=0.01-0.73, $P=0.027$, Table 2).

4. DISCUSSION

There were two main findings in this study. First, consistent with our hypotheses, perceived unmet need for SUD services appears to be strongly associated with future use of these services, at least in the short term. This finding is consistent with findings from past research on the association of perceived need and service use which were mainly based on cross-sectional data (Edlund et al., 2006; Meadows et al., 2002; Mojtabai et al., 2002; Sareen et al., 2007; Urbanoski et al., 2008). To our knowledge, the present study is the first report on

the prospective association of perceived need for SUD services and the actual use of these services based on a representative survey of the general population.

The low prevalence of perceived need for treatment has been consistently identified as a major barrier to treatment seeking for both mental health and SUD and much effort has focused on improving problem recognition and appreciation of need for treatment for these problems (Jorm, 2011; 2006; McBride et al., 2004; Palmgreen et al., 1995; Paykel et al., 1998; Turner and Quinn, 1999). Our data suggest that if these efforts are fully successful in fostering a perception of need for treatment among individuals with SUD, they can potentially increase the demand for such services by a factor of two or three times. While these findings are encouraging, it is also sobering to note that even among those who do perceive a need for SUD services, only one out of seven access these services in the span of three years. Clearly, we need a better understanding of the reasons why individual who perceive a need for SUD service do not seek or are unable to seek them.

A second finding of the study was the association between pessimistic attitudes toward treatments and future use of SUD services. Similar to research on the association of perceived need with treatment seeking, past research on barriers to treatment have been mainly based on cross-sectional data (Grant, 1997; Mojtabai, 2009; 2011; Perron et al., 2009; Rapp et al., 2006; Sareen et al., 2007; ten Have et al., 2010). A number of such studies have found a greater frequency of attitudinal compared to structural barriers among individuals who had not used services (Mojtabai et al., 2011; Sareen et al., 2007). A previous study based on the cross-sectional National Comorbidity Survey also found an association between attitudes toward treatment seeking and perceived need for treatment of mental health and substance use disorders (Mojtabai et al., 2002). The results from the present study are consistent with these findings, suggesting the preponderance of attitudinal factors, such as self-reliance and minimizing the problem as reasons for not seeking SUD treatment. However, among the different barriers, only the association between pessimistic attitudes toward the effectiveness of treatments and future SUD treatments was significant. This finding echoes results from clinical studies that have also found an association between positive attitudes toward treatments and treatment retention (Fiorentine et al., 1999). These findings suggest that after evaluating their own need for treatment, individuals who decide that they do need such treatment tend to evaluate the suitability and benefits of available options (McCaul et al., 2001). Unfortunately, NESARC did not include further questions regarding how the participants perceived the available treatment options. Future research needs to assess how individual evaluate suitability of SUD services for their specific needs.

The results of this study should be interpreted in the context of several limitations. First, despite the large sample of NESARC, the sub-sample of participants who perceived an unmet need for SUD services and reported on perceived barriers to such care was very small. As a result, we could not assess the association of individual barriers with future service use and even data on grouped barriers should be interpreted with extreme caution. Future research with larger cohorts are needed to assess the association of perceived barriers with service use more reliably. Second, barriers were assessed based on self-report which is open to various biases including recall bias and social desirability. Third, some instances of service use are mandated by courts or other institutions which were not assessed in NESARC. Fourth, service use was defined as any professional contact for this study. Many individuals who make a first contact with SUD services only make one or a few contacts and do not continue their participation. Future research with larger sample sizes would be needed to assess whether perceived need is a significant predictor of treatment continuation as well as treatment initiation. Finally, the findings of the study may not generalize to other countries with a different health care system or care financing arrangements where

individuals with substance disorders may face different types of barriers (Sareen et al., 2007).

In the context of these limitations, the findings from this study provide a first glimpse at the prospective associations of perceived need and perceived barriers with the use of SUD services in a representative population-based sample. The findings are of potential value in design of future educational and media campaigns and efforts to improve help seeking for SUD in primary care and mental health care settings. The findings of the study suggest a two-pronged approach to improving SUD treatment-seeking. On the one hand, improving problem recognition by the affected individuals may help to increase treatment-seeking by enhancing the perception of need for such help. Education campaigns in schools and workplace, media campaigns and efforts to enhance recognition and motivation for treatment-seeking in primary care and mental health care settings can potentially improve the perception of need for treatment among individuals with SUD.

On the other hand, conveying information on the benefits of SUD treatments and their availability may help to dispel pessimistic attitudes towards such treatments and concerns about their suitability. Introduction of treatment programs which may be accessible to a broader group of individuals with SUD and be less stigmatizing such as treatments provided in general medical settings (Bertholet et al., 2005; O'Connor et al., 1998) may also improve the appeal of these services to potential participants. Reducing the social, economic and human burden of SUD in the community may well depend on the success of this two-pronged approach.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

Perceived need for treatment at baseline and use of services at follow-up among 2,333 participants of the National Epidemiologic Survey on Alcohol and Related Conditions with 12-month substance use disorders and no prior use of services at baseline^a.

	Used services in follow-up		Did not use services in follow-up		Logistic regression analyses of the association of predictors with service use in follow-up			
	N	Row % ^b	N	Row % ^b	Bivariate analyses		Multivariate analysis ^a	
					OR	95% CI	P	
Perceived need for treatment								
No	87	4.9	2,051	95.1	1.00	Reference		
Yes	25	14.8	170	85.2	3.37	1.94-5.87	<0.001	1.68-5.78 <0.001
Age, years								
18-29	63	8.4	880	91.6	1.00	Reference		
30-39	20	3.4	569	96.6	0.38	0.21-0.69	0.002	0.43 0.23-0.81 0.009
40-49	19	3.4	441	96.6	0.38	0.21-0.71	0.003	0.43 0.23-0.81 0.010
50+	10	4.0	331	96.0	0.45	0.16-1.22	0.16	0.55 0.19-1.58 0.263
Sex								
Female	30	3.7	827	96.4	1.00	Reference		
Male	82	6.7	1,394	93.3	1.90	1.14-3.16	0.015	2.13 1.30-3.50 0.003
Race/ethnicity								
Non-Hispanic white	74	5.1	1,415	95.0	1.00	Reference		
Non-Hispanic black	15	4.8	342	95.2	0.94	0.45-1.98	0.869	0.78 0.36-1.72 0.540
Hispanic	17	7.8	387	92.2	1.60	0.86-3.00	0.138	1.32 0.72-2.44 0.361
Other	6	12.7	77	87.3	2.73	0.99-7.54	0.053	2.22 0.72-6.91 0.164
Type of substance disorder								
Abuse	46	4.1	1,399	95.9	1.00	Reference		
Dependence	66	8.4	822	91.6	2.17	1.34-3.49	0.002	1.35 0.82-2.24 0.232
Type of substance								
Alcohol only	76	4.5	1,869	95.5	1.00	Reference		

	Used services in follow-up		Did not use services in follow-up		Logistic regression analyses of the association of predictors with service use in follow-up					
					Bivariate analyses			Multivariate analysis ^a		
	N	Row % ^b	N	Row % ^b	OR	95% CI	P	aOR	95% CI	P
Non-alcohol drugs only	10	7.0	168	93.0	1.59	0.58-4.34	0.362	1.53	0.51-4.61	0.444
Alcohol+non-alcohol drugs	26	15.6	184	84.4	3.90	2.20-6.90	<0.001	2.43	1.25-4.73	0.010
Mood/anxiety disorder comorbidity										
None	45	4.9	630	95.1	1.00	Reference		1.00	Reference	
Any	67	7.9	1,591	92.1	1.67	1.02-2.74	0.041	1.16	0.68-1.97	0.578
Personality disorders comorbidity at baseline										
None	73	4.8	1,637	95.2	1.00	Reference		1.00	Reference	
Any	39	8.3	584	91.7	1.78	1.08-2.94	0.025	1.13	0.67-1.92	0.637
Health Insurance										
None	32	6.7	500	93.3	1.00	Reference		1.00	Reference	
Any	80	5.5	1,721	94.6	0.81	0.49-1.34	0.400	1.33	0.79-2.26	0.281

* Note: OR stands for odds ratio, aOR for adjusted odds ratio and CI for confidence interval.

^a Multivariate analyses adjusted for age, sex, race/ethnicity, type of substance disorder (abuse vs. dependence), type of substance (alcohol only, non-alcohol drugs only, alcohol and non-alcohol drugs), mood/anxiety disorder comorbidity, baseline personality disorders and health insurance.

^b The percentages were weighted by survey weights.

Table 2

Association of perceived barriers at baseline and use of services at follow-up among 195 participants of the National Epidemiologic Survey on Alcohol and Related Conditions with 12-month substance use disorders and no prior use of services who reported a perceived need for treatment at baseline.

Barriers	Used services in follow-up		Did not use services in follow-up		Logistic regression analyses of the association of barriers with service use in follow-up					
					Bivariate analyses			Multivariate analyses ^a		
	N	Row % ^b	N	Row % ^b	OR	95% CI	P	aOR	95% CI	P
Self-reliance or denial										
Not reported	2	-- ^c	48	94.5		Reference		1.00	Reference	
Reported	23	17.6	122	82.4	3.64	0.74-17.92	0.108	3.61	0.68-19.07	0.126
Stigma or fear of social consequences										
Not reported	17	13.7	119	86.3	1.00	Reference		1.00	Reference	
Reported	8	17.5	51	82.5	1.33	0.45-3.97	0.596	1.06	0.28-4.05	0.934
Financial										
Not reported	19	14.2	135	85.8	1.00	Reference		1.00	Reference	
Reported	6	-- ^c	35	83.3	1.21	0.36-4.08	0.747	0.80	0.22-2.89	0.729
Other structural										
Not reported	20	14.2	133	85.8	1.00	Reference		1.00	Reference	
Reported	5	-- ^c	37	83.1	1.22	0.37-4.06	0.735	0.54	0.12-2.34	0.395
Fear of treatments										
Not reported	21	13.9	149	86.1	1.00	Reference		1.00	Reference	
Reported	4	-- ^c	21	80.1	1.53	0.41-5.73	0.513	1.31	0.35-4.90	0.678
Treatment pessimism										
Not reported	24	16.3	150	83.8	1.00	Reference		1.00	Reference	
Reported	1	-- ^c	20	98.6	0.07	0.01-0.64	0.020	0.08	0.01-0.72	0.026
Any barrier	25	100.0	170	100.0						

Note: OR stands for odds ratio, aOR for adjusted odds ratio and CI for confidence interval.

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^aOne analysis was conducted for each type of barrier. Multivariate analyses adjusted for age, sex, race/ethnicity, type of substance disorder (abuse vs. dependence), type of substance (alcohol only, non-alcohol drugs only, alcohol and non-alcohol drugs), mood/anxiety disorder comorbidity, baseline personality disorders and health insurance.

^bThe percentages were weighted by survey weights.

^cThe percentage was not computed as the number of participants in the cell was less than 5 or the confidence interval for the percentage included 0.