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Public Perceptions of Substance Abuse and How Problems are Resolved: Implications for Medical and Public Health Services

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Abstract

Background—Increasing utilization and appeal of substance abuse services requires understanding public perceptions of substance abuse and problem resolution.

Method—A statewide survey ($N = 439$) assessed public views of the prevalence of problems, service utilization, and outcomes using random digit dialing sampling.

Results—Compared to population data, the sample over-estimated the prevalence of alcohol and drug problems, accurately gauged rates of help-seeking for substance-related problems, and underestimated rates of recovery, particularly natural resolutions without treatment. Perceived influences on help-seeking included extrinsic pressures like legal problems and wanting help with problems of living related to substance misuse.

Conclusions—Substance abuse is less prevalent and less intractable than the public perceives, and natural resolutions are common, but appear to be largely hidden from the public view. Implications for reducing barriers and expanding services in health care and public health settings are discussed.

Keywords

Substance Abuse; Services; Help-seeking; Consumers; Survey

Introduction

Historically, substance abuse services have been limited to mutual help groups like Alcoholics Anonymous (AA) and intensive, clinical treatments for substance abusers with serious problems. The majority with mild to moderate problems has been under-served until the recent development of brief interventions that can be delivered in primary care, emergency department, and community settings.^{1,2} For example, Project TrEAT, a large

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randomized trial of brief physician advice for problem drinkers identified in primary care, found significant reductions in drinking that were maintained over four years.¹ The intervention was associated with fewer hospital days, emergency department visits, and motor vehicle events and had a highly favorable cost-benefit ratio. Based on such findings, the National Institute on Alcohol Abuse and Alcoholism developed guidelines for screening and brief intervention.²

Brief and other lower threshold interventions^{3,4} complement clinical treatment and seek to improve population health by offering accessible, less intensive interventions to substance abusers with less serious problems who contribute the bulk of harm and cost.⁵ However, the public tends to view substance abuse as difficult to change, particularly without treatment. Treatment is often unappealing, however, even if effective, and a large gap exists between population need and treatment utilization.^{5,6} Attempts to resolve problems without treatment are far more common than intervention-assisted resolutions.⁴

Scientific groups^{5,7} have thus advocated consumer-oriented approaches to care, which have higher client satisfaction and appear to improve retention and outcomes.⁸ Although consumer-centric care is established in some areas,⁷ there has been scant marketing research concerning public views of substance abuse and the extent of correspondence with relevant population data. Such information can guide development of appealing services that balance consumer interests and needs with evidence-based practices. And while substance abusers are the endpoint consumers of services, social network members, employers, insurers, and courts often influence care-seeking and recovery,⁴ so consumer views need to be broadly assessed.

To address this gap, households in Alabama were surveyed by telephone concerning key indicators of substance-related problems. Respondent views were compared with national prevalence data to assess perceived accuracy and directional bias. Based on the literature,^{4,6,8} it was predicted that the public would (1) recognize the gap between need and service utilization, (2) over-emphasize the role of treatment in successful resolutions and under-estimate natural resolutions, and (3) recognize that substance abusers enter treatment because of external pressures and to get help with problems of living related to substance abuse.

Method

Procedures

A sample of residential telephone numbers was surveyed between September 2002 and August 2003 using random digit dialing (RDD) methods.⁹ The call's purpose was described as involving an anonymous survey about services for alcohol and drug problems and not about personal experiences with substance abuse or its treatment. Participation was unpaid and voluntary. Respondents were age 19 ($M = 46.32$ years, $SD = 15.18$).

The 72-item survey took an average of 24 minutes ($SD = 5.97$). The present findings were based on questions about perceived prevalence and utilization of services, resolution outcomes, and help-seeking influences; additional results are reported elsewhere.¹⁰

Participants estimated separately the percentage (0 – 100%) of people in the U.S. who have alcohol problems or problems with drugs other than alcohol or tobacco. They also estimated the percentage of people with problems who sought help from any source, resolved their problems using treatment or AA, or resolved them on their own. Using 10-point scales (1= “very little influence” and 10 = “very important influence”), they rated the importance of reasons people use substance abuse services: (1) legal trouble, treatment is court-ordered; (2) social pressure; (3–6) to deal with substance-related problems involving work/finances, relationships, physical or mental health; (7) substance use costs too much, causes money problems; and (8) to reduce associated health risks (e.g., HIV, hepatitis). These questions had good internal consistency ($\alpha = .840$).

The upper bound survey response rate¹¹ was 38%, which is the number of completed interviews divided by the number of completes, refusals, and terminations [439/(439 + 706 + 19)]. Most refusals indicated their household would never need such services, which is plausible given that half of Alabama adults report abstaining from alcohol and fewer use illicit drugs.¹² The final sample had a 95% confidence interval of $\pm 4.68\%$.

Data analyses

The sample prevalence estimates were compared with 12-month population prevalence data from national surveys in the United States that used representative samples.^{6,13,14} Separate multivariate analyses of variance (MANOVAs) were conducted on the five prevalence estimates using household substance abuse status (SA+/SA–), help-seeking status (HS+/HS–), respondent race (White/Black), and gender (male/female) as the grouping variable. Univariate tests are reported for significant MANOVAs.

Results

Sample characteristics

Table 1 shows the sample demographic and household characteristics related to substance abuse and help-seeking. The sample was similar to 2000 U.S. census data for adults in Alabama, except that it included more women and was more highly educated. Gender and education thus were used to weight variables for analysis, which also indirectly adjusted for income. Compared to national samples, Alabama has more African Americans (26.4% vs. 12.8%) and abstainers from alcohol (57% vs. 42% for ages ≥ 12).¹²

Based on the unweighted data, 26.61% of households had a substance-abusing member (SA + households), of which 36.84% were the respondents (9.63% of the sample). The latter percentage was similar to the prevalence of substance abusers in national samples (9.1%),¹² although, as expected, the percentage of all respondents with a substance-abusing household member, including help-seekers, was higher. Alcohol was the most frequently abused drug, followed by illicit drugs and misuse of prescription drugs.

Substance abuse indicators

Figure 1 shows the sample percentage estimates of alcohol and drug problems, help-seeking, and resolution rates with and without interventions compared to national prevalence

data.^{6,13,14} Compared to population data, the full sample over-estimated the prevalence of alcohol ($z = 14.16, p < .001$) and drug ($z = 16.26, p < .001$) problems, accurately gauged rates of help-seeking ($z = 1.58, ns$), and under-estimated recovery rates with interventions ($z = -20.38, p < .001$) and especially natural recovery without treatment ($z = -40.38, p < .001$). For the full sample, estimates of the prevalence of alcohol and drug problems did not differ significantly. As predicted, both were significantly higher than estimates of the prevalence of help-seeking, $F(2, 962) = 245.36, p < .0001$. Resolutions achieved with interventions were estimated to be more than twice as frequent as natural resolutions, $F(1, 486) = 151.47, p < .0001$.

Role of respondent characteristics

The MANOVAs indicated that prevalence estimates varied significantly as a function of household SA status, $F(5, 469) = 2.77, p = .018$, race, $F(5, 450) = 6.52, p < .001$, and gender, $F(5, 409) = 5.42, p < .001$, but not as a function of household HS status ($p = .356$). As shown in Table 2, relative to their respective comparison groups, estimates of alcohol problems were significantly higher among SA+ households, $F(1, 473) = 6.71, p = .01$, Black, $F(1, 454) = 4.71, p = .03$, and women, $F(1, 413) = 17.58, p < .001$, respondents. Estimates of other drug problems showed the same pattern of significant group differences ($F(1, 473) = 11.15, p = .001$ for SA status; $F(1, 454) = 17.66, p = .001$ for race; $F(1, 413) = 15.01, p < .001$ for gender). African Americans viewed natural resolutions as more common than Whites, $F(1, 454) = 3.62, p = .058$, and women estimated higher help-seeking rates than men, $F(1, 413) = 7.56, p = .006$, which is consistent with their relative rates of health services utilization.

Perceived reasons for seeking help

The 8 reasons for seeking help were examined in separate 2×8 ANOVAs using each grouping variable, which showed no significant group-related interactions. A final ANOVA collapsing across groups revealed significant variation among reasons, $F(7, 3465) = 67.89, p < .0001$. Contrasts showed that court-ordered treatment ($M = 8.81, SD = 2.35$) was rated higher and social pressure was rated lower ($M = 6.21, SD = 2.83$) than all other reasons. Mental ($M = 8.15, SD = 2.55$) and physical ($M = 8.11, SD = 2.59$) health problems were rated similarly and higher than money ($M = 7.89, SD = 2.56$), work ($M = 7.78, SD = 2.28$), and relationship ($M = 7.88, SD = 2.31$) problems and reducing health risks of use ($M = 7.81, SD = 2.86$), which did not differ significantly ($ps < .05$).

Discussion

Substance misuse is a common, under-treated problem that often benefits from cost-effective brief and other low intensity interventions delivered in non-specialty medical and community settings.¹⁻⁴ The present study suggests, however, that the appeal and use of such services may be limited by public misconceptions about substance abuse. Although respondents accurately estimated that only about a quarter of persons with problems seek help, they overestimated the prevalence of alcohol and drug problems, and greatly underestimated the likelihood of successful resolutions, particularly natural resolutions without treatment.

This pessimistic public view contrasts sharply with research on resolution rates. Whereas the sample estimated 24% treatment-assisted resolutions, 1-year alcohol treatment outcomes typically include about 40% sustained abstinence or moderation, 23% reduced problem drinking, and 37% problem drinking.³ Sample (11%) and population (66%–75%) estimates of natural resolutions were even more discrepant.^{4,14} Although natural resolutions are the main remission pathway in the population, the phenomenon appears to be largely hidden from public view.

These negative perceptions may create barriers to the use of lower intensity services, and lack of public awareness of these alternatives may impede early help-seeking when problems are less severe.^{2–4} This is of particular concern for the large population segment with mild to moderate alcohol problems (especially men) who are appropriate targets for brief interventions and who are likely to interact with health care providers before developing serious problems.

The findings about what influences help-seeking suggest ways to design more appealing services. Although extrinsic factors like legal problems and wanting help with substance-related problems, were rated highly, many treatment programs focus narrowly on reducing or stopping drug use. Greater attention to resolving problems of living that motivate help-seeking may increase the appeal and effectiveness of services. Such problems typically develop before health problems or laboratory indicators of substance abuse,^{2–4} and can aid early detection and intervention with patients with less severe problems.

The study has limitations related to the response rate and sample characteristics. The 38% response rate was lower than desired, but is typical of statewide RDD surveys,¹⁵ given caller ID, “do not call” lists, and other current impediments to phone data collection. Moreover, research has shown that estimates of population parameters of health indicators do not vary by more than 2% as survey response rates rise from 35% to 90%.¹⁶ Estimates also show little variation when non-responsiveness is due to the survey topic having variable relevance to respondents,¹⁷ as in the present study. Another study feature that helped reduce sample bias is the RDD methodology, which gives every household with a telephone a chance to participate. Estimates based on telephone-only households generally have little bias compared to all households with and without land-line telephones.¹⁸ Finally, in the present survey it was possible to interview another household member even if the member with the substance-related problem was not contacted (e.g., due to incarceration). Collectively, these considerations suggest that the present survey response rate and characteristics, while not ideal, did not seriously undermine inferences drawn about public perceptions of substance abuse.

Conclusions

The public views substance abuse as more common and difficult to change than population data suggest. Corrective health communications are needed if less intensive services are to find a market niche in non-specialty medical care and public health settings. The primary care setting provides a lower threshold venue for communication and intervention with persons experiencing mild to moderate problems.

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Key points

1. Expanding services for alcohol and drug problems depends on understanding public perceptions of substance abuse and how problems are resolved.
2. A statewide telephone survey indicated that adults accurately perceived that help-seeking is uncommon, but underestimated the prevalence of recovery, particularly natural recovery without treatment.
3. Health communications to correct public misconceptions about substance abuse, in combination with evidence-based practices, hold promise for extending the reach of services for these stigmatized disorders in medical and public health settings.

Figure 1.

Sample percentage estimates ($N = 439$) and 12-month population prevalence of substance-related problems,¹⁴ help-seeking,⁷ and resolution outcomes.¹⁵ Resolved tx = recovery estimate with treatment; resolved no tx = recovery estimate without treatment (natural resolution).

Table 1Sample Demographic Characteristics, Substance-Related Problems, and Help-Seeking Patterns ($N = 439$)

Characteristic	<i>n</i>	% of sample	
		Unweighted	Weighted
Men	148	33.7	48.3
Women	291	66.3	51.7
White	302	68.8	67.6
African American	117	26.7	26.7
Other race/ethnicity	19	4.6	5.7
Educational level			
Kindergarten – grade 11	46	10.5	25.3
High school graduate/some college	230	52.5	45.5
College graduate or beyond	162	37.0	29.2
Annual household income (\$)			
< 20,000	93	24.3	27.7
20,000 – 40,000	104	27.2	26.8
40,000 – 60,000	87	22.7	23.0
60,000 – 80,000	54	14.1	11.9
> 80,000	45	11.7	10.6
Households with a substance-abusing member (SA+)	116	26.6	29.8
Abused drugs in SA+ households ¹			
Alcohol	96	82.8	82.7
Marijuana	54	46.6	46.6
Cocaine, heroin, methamphetamine	43	37.1	37.8
Prescription drugs	30	25.9	22.8
Club drugs (e.g., Ecstasy)	10	8.6	6.1
Over-the-counter drugs	9	7.8	5.8
SA+ households using any services	76	65.5	62.4
Services used by SA+ households ¹			
Mutual help/support groups	36	47.4	51.9
Medical professionals	42	55.3	53.1
Mental health professional	25	32.9	30.9
Religious help	14	18.4	14.8
Family and friends	8	10.5	9.9
Self-help	4	5.3	3.7
Computerized help (all kinds)	1	1.3	1.3

¹ Sum of percentages exceeds 100 because more than one substance or service used in some SA+ households.

Table 2
Role of Respondent Characteristics in Percentage Estimates of the Prevalence of Substance Abuse Indicators

Variable	SA+		SA-		Whites			Blacks			Men			Women		
	M	SD	M	SD	M	SD	p	M	SD	p	M	SD	p	M	SD	p
Alcohol problems	46.71	23.00	40.80	22.78	40.84	22.11	.010	45.99	25.13	.030	35.82	21.37	.001	45.30	22.20	.001
Drug Problems	48.37	24.67	39.93	25.50	39.09	24.34	.001	49.92	26.60	.001	34.69	23.56	.001	44.55	25.25	.001
Help-seekers	23.91	20.22	22.57	18.58	21.71	17.34	<i>ns</i>	24.17	19.55	<i>ns</i>	19.61	20.13	.006	24.90	17.85	.006
Resolved-intervention	23.30	22.53	25.30	23.18	25.54	23.82	<i>ns</i>	22.96	21.24	<i>ns</i>	24.44	24.62	<i>ns</i>	26.26	23.46	<i>ns</i>
Resolved-no intervention	12.00	15.82	11.25	15.27	10.33	13.84	<i>ns</i>	13.27	17.53	.058	12.30	17.84	<i>ns</i>	10.56	13.87	<i>ns</i>

Note. Summary statistics based on weighted data except in gender analyses ($N = 439$). P -values based on univariate ANOVAs.