Factors involved in seeking care at a specialty service among alcoholic rural French women: A cross-sectional study of rural women

Stéphanie Bourion-Bédès, Isabelle Clerc-Urmès, Alex Bédès, Cédric Baumann

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Facteurs associés au recours aux soins spécialisés chez des femmes dépendantes à l'alcool en milieu rural: résultats d'une étude transversale

Shortened version of the title: factors involved in seeking care among rural women

Authors and advanced degrees :

1. Stéphanie Bourion-Bédès [a,b,c] (MD, PhD)
2. Isabelle Clerc-Urmès (PhD)[d]
3. Alex Bédès[e](MD)
4. Cédric Baumann[c,d] (PhD)

Authors affiliations :

[a]Service médico-psychologique régional, Metz, France

[b]CSAPA (Health Care Centre of Accompaniment and Prevention in Addictology), University Hospital of Nancy, France, Telephone: +33 (0) 3 83 85 83 85,

[c]EA4360 APEMAC, Nancy, University of Lorraine, Telephone: +33 (0) 3 83 85 21 63,

[d]Methodology, data management and statistic unit, Department MPI, University Hospital of Nancy, France

c.baumann@chru-nancy.fr

i.clercurmes@chru-nancy.fr

[e]ANPAA 15- CSAPA (Health Care Centre of Accompaniment and Prevention in Addictology), Saint-Flour, Cantal, France, Telephone: +33 (0) 4 71 60 16 85

alexbedes@orange.fr

Signs: 13 065

Corresponding author: Stephanie BOURION-BEDES

Service médico-psychologique régional, Metz, France, 57 073 Metz, France

Telephone: +33 (0) 3 87 38 51 05 Fax: +33 (0) 3 87 38 51 09

E-mail address: steph_bedes@yahoo.fr

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Abstract

Background: Few studies of mental health or substance abuse have focused on rural life. This study aimed to evaluate the association between socio-demographic and clinical characteristics and the probability of rural alcoholic women seeking help on their own at a specialty treatment service.

Methods: This exploratory study used a cross-sectional design to collect data from alcoholic women upon admission to a French outpatient department. Multiple logistic regression models tested whether the socio-demographic and clinical characteristics of these women predicted the likelihood that they would seek treatment at a specialty service on their own.

Results: Among 50 rural alcoholic women, the probability of seeking help on their own at a specialty treatment service was 5.6 times greater (95% CI 1.2-25.7, p = 0.03) for participants with a history of physical and/or sexual trauma and 5.1 times greater (95% CI 1.1-24, p = 0.03) among women with no complementary health insurance.

Conclusion: Increased knowledge of the specific characteristics of rural alcoholic women is needed to develop programs that will increase awareness of and access to specialty treatment services among these women.

Keywords

Alcohol dependence, Rural women, Treatment

What was already known?

- Alcoholic women have a high prevalence of psychiatric comorbidities and somatic complications

- Women with alcohol disorders are less likely to receive specific treatment at a specialty alcohol treatment service compared with men

What does the article bring?

- The knowledge of characteristics of alcoholic women in a rural region of central France with one of the highest alcohol-related mortality
- The knowledge of factors that lead alcoholic women to seek care, specifically in rural area
- The identification of a need to develop programs to access to specialty treatment services for alcoholic rural women

Background

Alcoholism is a major medical problem that affects both men and women health. In women, alcohol use disorder is often discovered in association with another medical or mental health disorders, and comorbidity is more common among women with alcohol use disorders compared with men [1]. Although women consume less alcohol than men, they usually suffer from more severe damage to the brain and other organs following chronic alcohol abuse. Alcoholism is also known to be associated with a range of reproductive problems and prenatal ethanol exposure, which may be associated with birth defects [2]. Among psychiatric disorders, depression and suicide attempts are important comorbid conditions. Although alcoholic women have been increasingly included in research in recent years, the lower prevalence of alcohol use disorders among women compared with men has led to few samples of women only [3].

Studies have identified a number of risk factors associated with alcoholism in women, including a family history of alcoholism and a history of victimization, violence and depression [4-6].

While the risk factors that increase susceptibility to alcoholism in women are well established, the factors that lead alcoholic women to seek help are less known.

In France, alcohol consumption is a major public health problem [7-8]. Studies have reported that approximately 2 million French people are at risk of alcohol dependence, and that women with alcohol disorders are less likely to receive specific treatment at a specialty alcohol treatment service compared with men [9]. These women may first seek specialty alcohol treatment on their own (SATO) or be referred by primary care provider, hospital practitioner or social worker (non-SATO). Relatively few studies of mental health or substance abuse have focused on rural life [3]. Previous research has indicated that rural people are generally disadvantaged compared with their urban counterparts in terms of availability, accessibility and acceptability of alcohol treatment [3]. Even when mental health and addiction services are available in rural areas, longer travel distances to providers and fear of the stigma of substance abuse and mental health in rural areas present barriers to seeking help [10-11]. Because of these barriers and because symptoms of substance abuse are overlooked or misdiagnosed in women, rural alcoholic women may be at particular risk for more severe and complex illness [3].

Thus, to understand methods for managing alcohol dependence among rural women and to make the changes necessary to increase referrals to specialty treatment services, this exploratory study aimed to determine which socio-demographic and clinical factors could lead alcoholic rural women to seek help on their own.

Methods

Study design and population

A cross-sectional study design was used from clinical records for 2014 from the Health Care Center for Accompaniment and Prevention in Addiction in rural area of Saint-Flour, Cantal,

France. All of the participants were receiving outpatient treatment for alcohol dependence at a treatment program offered by the Health Care Center. Central France is a rural area that ranks among the leading French regions in terms of the incidence of alcohol use disorders [12]. Moreover this region has the third highest alcohol-related mortality rate in France [13]. The population density of Cantal is approximately 26 inhabitants/km^2, lower than the mean French population density of 114.2 inhabitants/km^2 [14].

Fifty adult women aged 18 years and older with alcohol dependence diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders-4th Edition-Text Revision (DSM-IV-TR) participated in the study [15]. The general exclusion criteria were women for whom alcohol dependence was not the main diagnosis on Axis 1 of the DSM-IV-TR. The women were assigned to the SATO group or the non-SATO group according the whether they had sought alcohol treatment on their own or were referred for treatment. Patients receiving care were informed on the treatment of data from reports. The ethical approval for the study was obtained from the Institutional Review Board (Comité National Informatique et Liberté- 1953307v0) ensuring the confidentiality of the patient information.

Data collection

All data were collected by a specifically trained clinician who administered a questionnaire used in routine clinical care practice upon each woman's admission to outpatient treatment. The following data were collected: age at onset, drinking habits, history of family members with alcoholism, socio-demographic data (age, marital status, employment, number of children), complementary health insurance status and clinical data (tobacco use, somatic complications, psychiatric comorbidities associated with alcoholism). A history of suicide attempt and history of physical and/or sexual violence during childhood or adulthood were also collected. The travel distance to the specialty treatment service was also noted because

this factor has been previously found to have a possibly influence on access to specialty treatment.

Analysis

The data were analyzed for all the participants as a whole and for the subsamples of SATO versus non-SATO alcoholics**.** Continuous variables are described as the mean and standard deviation (SD), and categorical variables are described as percentages. The data were compared using the chi-square or Fisher exact test for categorical variables and the Student's *t* test or Mann–Whitney test for quantitative variables. Multivariable logistic regression models were used to evaluate the association between socio-demographic characteristics, clinical characteristics and the probability of rural alcoholic women seeking help on their own for alcohol dependence. Age at onset and travel distance to a specialty treatment service were dichotomized using a median cut-off value. Variables that were significant at $p < 0.1$ in the bivariate analysis were used as candidate variables in the multivariate analysis. The results are expressed as odds ratios (OR) with 95% confidence intervals. All of the analyses used SAS 9.3 (SAS Institute, Cary, NC, USA), with $p < 0.05$ considered statistically significant**.**

Results

Social and demographic characteristics of the women (Table 1)

Fifty women comprised the sample. Sixteen women (32%) were assigned to the SATO group, and thirty-four women (68%) were assigned to the non-SATO group. The mean age at the beginning of care in the unit was 45.9 (10.3) years; no difference was found between the 2 groups ($p = 0.38$). Most of the women were married (70%) or had been previously married (12%). Over half the sample was unemployed (52%); 20 women worked full time, and 4

women worked part time. There were no significant differences between the two groups in terms of marital status and employment. Less than 50% of the sample had a spouse or a former spouse with an alcohol disorder. Fifteen women in the non-SATO group reported having a spouse or a former spouse with an alcohol disorder; no difference was found between the two groups ($p = 0.57$). Twenty-six (52%) women reported having complementary health insurance, with a significant difference between the non-SATO and SATO women ($p = 0.009$). There was no significant difference in travel distance to the specialty treatment service between the two groups ($p = 0.43$).

Clinical characteristics of the women (Table 2)

Table 2 summarizes the clinical characteristics of the entire sample and of each group. The mean age at onset was 34.4 (11.7) years, and there was no significant difference between the two groups in age at onset. Multiple drinks (42%), such as beer, wine and hard liquor, were the most consumed alcoholic beverages among the rural women. Hard liquor was preferred by 43.8% of the SATO group, while multiple drinks were more often consumed in the non-SATO group (47.1%). There was no significant difference between the two groups regarding beverage type. The rural women in our sample preferred solitary drinking at home (66%). Physical problems were observed in 48% of the cases, specifically cirrhosis, acute hepatitis and pancreatic disease. Somatic complications were significantly more prevalent in the non-SATO group than in the SATO group ($p = 0.03$).

Among the 50 alcohol-dependent women, 14 (28%) had no psychiatric disorder. Thirty (60%) met the criteria for a depressive disorder, and two cases of generalized anxiety disorder (4%) were also registered. More women in the SATO group reported a history of suicide attempt than did women in the non-SATO group (43.8% versus 23.5%); however, there was no significant difference between the two groups ($p = 0.16$). Table 2 also showed

that 42% of the sample had first-degree family members who were habitual drinkers, and that twenty alcoholic women (40%) reported experiencing physical and/or sexual violence at some time in their lives. The women in the SATO group had a higher frequency of exposure to physical and/or sexual violence than did those in the non-SATO group (p = 0.004).

Factors that influenced whether the participants sought alcohol treatment on their own (Table 3)

In a multivariable analysis that included the candidate variables tested in a bivariate analysis and after adjusting for age at onset, 3 variables remained significantly linked with the likelihood that these alcoholic rural women would seek alcohol treatment on their own (Table 3).

Thus, a history of physical and/or sexual trauma was associated with a significantly higher likelihood that participants would seek help by themselves (OR = 5.6; 95% CI, 1.2-25.7, p = 0.03), as was the absence of complementary health insurance (OR = 5.1, 95% CI 1.1-24, p = 0.03). The presence of somatic complications decreased the likelihood that these women would seek help on their own (OR = 0.16, 95% CI 0.03-0.8, p = 0.02).

Discussion

In our sample of 50 alcoholic women and consistent with numerous works, we found a high prevalence of psychiatric comorbidities and somatic complications [16-17]. The middle-aged rural women in our sample preferred solitary drinking at home, and the proportion of unemployed patients (52%) was higher than in France's general population, which could be interpreted as either a cause or a consequence of alcohol dependence [18]. This study showed that less than half of the women reported a history of physical and/or sexual trauma. This result is consistent with previous findings that childhood and adult victimization are

238 significant occurrences in the lives of alcoholic rural women [4]. Age at admission to our
239 outpatient alcohol treatment department was consistent with the results of previous studies of
240 women undergoing outpatient treatment for alcohol dependence, confirming delayed
241 treatment after onset of alcohol misuse [19]. Moreover, there was an important disparity in
242 the number of women who presented to the service primarily on their own and the number of
243 women who were referred. Because the women who were referred had more somatic
244 complications, these results concurred with prior studies in which the authors noted co-
245 morbid psychiatric conditions and/or somatic complications, rather than alcoholism per se, as
246 the reasons that the majority of patients sought help [20].

247 In this study, the probability of seeking help at a specialty treatment service was
248 greater for rural alcoholic women with a history of physical and/or sexual trauma. These
249 findings are consistent with the reported predictors of involvement with mental health
250 services among mothers whose children were at risk of maltreatment [21]. Violence is
251 common in the lives of rural women, especially those with alcohol and other drugs disorders
252 [11]. Because women are often reluctant to enter alcohol treatment because of the associated
253 social stigma, we hypothesized that our department of specialized mental health providers is
254 perceived as a safer environment where the women can approach the alcohol disorders and
255 violence that are known to be common among families in rural communities with less fear of
256 stigma [2,4,11].

257 Because accessibility has been shown to be a strong predictor of the use of alcohol
258 services in rural populations, the travel distance to the specialty treatment service was tested
259 in a bivariate analysis. We found that travel distance was not associated with the probability
260 of seeking help at an alcohol specialty treatment service on their own.

261 We also showed that for rural women, the absence of complementary health insurance
262 was significantly related to a greater likelihood of seeking specialty treatment on their own,

whereas the presence of somatic complications was not associated with the likelihood of seeking treatment on their own. These important findings require further examination. Our department provides care at no cost, which we hypothesized may affect treatment service use among women with no complementary health insurance. This finding suggests also that rural alcoholic women with better health insurance coverage are probably not treated primarily by specialty substance abuse providers; they may instead seek treatment from their primary care providers for more severe somatic conditions. As previously described, rural women with alcohol disorders might be frequently misdiagnosed [13] or treated for a comorbid condition because the symptoms of substance abuse are often overlooked or misdiagnosed in women. Thus, these results suggest that interventions must be developed and evaluated with primary care providers, social workers and nurses to increase the recognition and treatment of alcohol problems among rural alcoholic women.

This exploratory study had several limitations. The results of the present study are limited by certain factors, including the relatively small sample size. Previous studies encountered this limitation among alcoholic women samples and supported the need of larger studies [22]. Despite the small sample size, this research is an important first step in identifying some of the factors linked to the probability that rural alcoholic women will seek alcohol treatment on their own. A second limitation is that all patients were selected through a specialty treatment service in a rural area. This sample cannot be considered a reflection of alcoholic women in routine health care practice.

The strength of this study is its homogeneous population, which increases the degree to which the results can be interpretable for a specific patient population. Furthermore, to our knowledge, no study has yet been published on alcoholic rural French women, and as the Auvergne region of central France has one of the highest alcohol-related mortality rates, this study provides important knowledge about these alcoholic rural women [23].

Conclusion

Among rural alcoholic women, the probability of seeking help at a specialty treatment service on their own was greater for participants with a history of physical and/or sexual trauma and with no complementary health insurance. Because alcoholic women might often be treated for comorbid conditions by their primary care providers and not be referred to a specialty care service, continued research focusing on gender-based differences in alcohol dependence is needed to improve our understanding of this major health problem and to develop appropriate and individualized treatment for women.

While seeking help is only one point in the recovery process for alcoholic women, and because recovery from alcohol dependence is often marked by relapses and remissions, further work is needed to elucidate the environmental, cultural and personal factors associated with abstinence in rural areas.

Abbreviations

SATO, Specialty alcohol treatment on their own

Authors' contributions

Dr Bourion is responsible for the study design, data collection together with Dr Bedes, data analyses, interpretation of the results and the writing. Dr Baumann cooperated on the interpretation of the data and helped to draft the manuscript.

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Table 1. Social and demographic characteristics of women

Characteristic	Full sample n = 50 Mean (SD) or %	SATO group n = 16 Mean (SD) or %	Non-SATO group n = 34 Mean (SD) or %	p
Age at admission	45.9 (10.3)	44.7 (10.6)	46.8 (10.2)	0.38
Employment				0.22
Unemployed	52	56.2	50	
Part-time	8	12.5	5.9	
Full-time	40	31.3	44.1	
Marital status				0.90
Single	10	12.5	8.8	
Married/cohabiting	70	68.8	70.6	
Divorced/separated	12	12.5	11.7	
Widowed	8	6.2	8.8	
Number of children	2.3 (1.1)	2.4 (1.3)	2.2 (1.0)	0.62
Alcoholic spouse/former spouse	42	37.5	44.1	0.57
Complementary health insurance	58	31.3	70.6	0.009
Travel distance to specialty treatment service (km)	17.2 (15.4)	14.9 (11.7)	18.3 (16.9)	0.43

SATO group, women who first sought specialty alcohol treatment on their own.
SD, standard deviation.

Table 2. Clinical characteristics of women

Characteristic	Full sample n = 50 Mean (SD) or %	SATO group n = 16 Mean (SD) or %	Non-SATO group n = 34 Mean (SD) or %	p
Age at onset	34.4 (11.7)	33.6 (12.7)	34.7 (11.4)	0.80
Beverage type				0.70
Beer	12	12.5	11.8	
Wine	16	12.5	17.7	
Hard liquor	30	43.8	23.5	
Beer, wine, hard liquor	42	31.2	47.1	
Site of alcohol consumption				0.30
Home	66	56.3	70.6	
Home, bar	34	43.7	29.4	
Tobacco use	88	81.3	91.2	0.30
Presence of somatic complications				0.03
Cirrhosis/acute hepatitis	28	18.8	32.4	
Pancreatic disease	6	0	8.9	
Epilepsy	4	6.3	2.9	
Polyneuritis	14	12.5	14.7	
Hypertriglyceridemia	4	6.3	2.9	
Comorbid psychiatric disorder				0.28
Major depression	60	50	61.7	
Anxiety disorders	4	0	2.9	
Bipolar disorder	6	12.5	2.9	
Psychotic disorder	2	0	2.9	
Family history of alcoholism	42	56.3	35.3	0.11
History of physical and/or sexual trauma	40	68.8	26.5	0.004
History of suicide attempt(s)	30	43.8	23.5	0.16

SATO group, women who first sought specialty alcohol treatment on their own.
SD, standard deviation.

Table 3. Factors influencing the likelihood of alcoholic rural women seeking alcohol treatment on their own

	Bivariate analysis			Multivariate analysis		
Variables	**OR**	**95% CI**	**p**	**OR**	**95% CI**	**p**
Age at onset						
Age < 35 years	1			1		
Age ≥ 35 years	0.99	0.3-3.2	0.98	1.5	0.32-6.7	0.62
Marital status						
Single	1					
Married/cohabiting	0.92	0.2-3.3	0.89			
Alcoholic spouse/former spouse						
No	1					
Yes	0.69	0.1-2.5	0.58			
Employment						
Yes	1					
No	2.1	0.5-8.1	0.27			
Complementary health insurance						
Yes	1			1		
No	5.28	1.46-1.9	0.01	5.1	1.1-24	0.03
Presence of somatic complications						
No	1			1		
Yes	0.23	0.06-0.8	0.03	0.16	0.03-0.8	0.02
Comorbid psychiatric disorder						
No	1					
Yes	0.87	0.4-1.8	0.71			
Family history of alcoholism						
No	1					
Yes	2.85	0.7-10.6	0.12			
History of physical and/or sexual trauma						
No	1			1		
Yes	6.1	1.6-22.5	0.007	5.6	1.2-25.7	0.03
History of suicide attempt(s)						
No	1					
Yes	2.43	0.6-8.6	0.17			
Travel distance to specialty treatment service						
Distance ≤ 16 km	1					
Distance > 16 km	0.79	0.24-2.5	0.7			

OR = Odds ratio; 95% CI = 95% confidence interval.