



HAL
open science

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

► To cite this version:

Stéphanie Bourion-Bédès, Isabelle Clerc-Urmès, Alex Bédès, Cédric Baumann. Factors involved in seeking care at a specialty service among alcoholic rural French women: A cross-sectional study of rural women. *La Presse Médicale*, 2019, 48 (12), pp.e361-e368. 10.1016/j.lpm.2019.09.046 . hal-02440535

HAL Id: hal-02440535

<https://hal.univ-lorraine.fr/hal-02440535>

Submitted on 21 Dec 2021

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution - NonCommercial| 4.0 International License

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

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

5

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

7 **Authors and advanced degrees :**

8

- 9 1. Stéphanie Bourion-Bédès ^{a,b,c} (MD, PhD)
10 2. Isabelle Clerc-Urmès (PhD)^d
11 3. Alex Bédès^c(MD)
12 4. Cédric Baumann^{c,d} (PhD)

13

14

15 **Authors affiliations :**

16

17 ^aService médico-psychologique régional, Metz, France

18 ^bCSAPA (Health Care Centre of Accompaniment and Prevention in Addictology), University

19 Hospital of Nancy, France, Telephone: +33 (0) 3 83 85 83 85,

20 ^cEA4360 APEMAC, Nancy, University of Lorraine, Telephone: +33 (0) 3 83 85 21 63,

21 ^dMethodology, data management and statistic unit, Department MPI, University Hospital of

22 Nancy, France

23 c.baumann@chru-nancy.fr

24 i.clercurmes@chru-nancy.fr

25 ^eANPAA 15- CSAPA (Health Care Centre of Accompaniment and Prevention in

26 Addictology), Saint-Flour, Cantal, France, Telephone: +33 (0) 4 71 60 16 85

27 alexbedes@orange.fr

28

29 Signs: 13 065

30

31

32

33

34 **Corresponding author:** Stephanie BOURION-BEDES

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

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

37 E-mail address: steph_bedes@yahoo.fr

38

39 **Disclosure**

40 The authors declare that they have no competing interest.

41

42 **Acknowledgements**

43 The authors thank all the colleagues at the Health Care Centre of Accompaniment and
44 Prevention in Addictology, who provided care for these patients.

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62 Abstract

63 **Background:** Few studies of mental health or substance abuse have focused on rural life.

64 This study aimed to evaluate the association between socio-demographic and clinical
65 characteristics and the probability of rural alcoholic women seeking help on their own at a
66 specialty treatment service.

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

71 **Results:** Among 50 rural alcoholic women, the probability of seeking help on their own at a
72 specialty treatment service was 5.6 times greater (95% CI 1.2-25.7, $p = 0.03$) for participants
73 with a history of physical and/or sexual trauma and 5.1 times greater (95% CI 1.1-24, $p =$
74 0.03) among women with no complementary health insurance.

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

78

79 Keywords

80 Alcohol dependence, Rural women, Treatment

81

82

83 What was already known?

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

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

88 What does the article bring?

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

95

96

97 **Background**

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

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

112

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

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

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

133

134 **Methods**

135 **Study design and population**

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

138 France. All of the participants were receiving outpatient treatment for alcohol dependence at
139 a treatment program offered by the Health Care Center. Central France is a rural area that
140 ranks among the leading French regions in terms of the incidence of alcohol use disorders
141 [12]. Moreover this region has the third highest alcohol-related mortality rate in France [13].
142 The population density of Cantal is approximately 26 inhabitants/km², lower than the mean
143 French population density of 114.2 inhabitants/km² [14].

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

153

154 **Data collection**

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

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

165

166 **Analysis**

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

180

181 **Results**

182 **Social and demographic characteristics of the women (Table 1)**

183 Fifty women comprised the sample. Sixteen women (32%) were assigned to the SATO
184 group, and thirty-four women (68%) were assigned to the non-SATO group. The mean age at
185 the beginning of care in the unit was 45.9 (10.3) years; no difference was found between the
186 2 groups ($p = 0.38$). Most of the women were married (70%) or had been previously married
187 (12%). Over half the sample was unemployed (52%); 20 women worked full time, and 4

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

196

197 **Clinical characteristics of the women (Table 2)**

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

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

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

217

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

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

224 Thus, a history of physical and/or sexual trauma was associated with a significantly
225 higher likelihood that participants would seek help by themselves (OR = 5.6; 95% CI, 1.2-
226 25.7, $p = 0.03$), as was the absence of complementary health insurance (OR = 5.1, 95% CI
227 1.1-24, $p = 0.03$). The presence of somatic complications decreased the likelihood that these
228 women would seek help on their own (OR = 0.16, 95% CI 0.03-0.8, $p = 0.02$).

229

230 **Discussion**

231 In our sample of 50 alcoholic women and consistent with numerous works, we found a high
232 prevalence of psychiatric comorbidities and somatic complications [16-17]. The middle-aged
233 rural women in our sample preferred solitary drinking at home, and the proportion of
234 unemployed patients (52%) was higher than in France's general population, which could be
235 interpreted as either a cause or a consequence of alcohol dependence [18]. This study showed
236 that less than half of the women reported a history of physical and/or sexual trauma. This
237 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,

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

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

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

288

289 Conclusion

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

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

301

302 Abbreviations

303 SATO, Specialty alcohol treatment on their own

304

305 Authors' contributions

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

309

310

311

312

313 **References**

- 314 [1] Boyd MR. Predicting substance abuse and comorbidity in rural women. Arch
315 Psychiatr Nurs 2000; 14:64–72.
- 316 [2] Ceylan-Isik AF, McBride SM, Ren J. Sex difference in alcoholism: who is at a greater
317 risk for development of alcoholic complication? Life Sci 2010; 87:133–8.
- 318 [3] Booth BM, McLaughlin YS. Barriers to and Need for alcohol services for women in
319 rural populations. Alcohol Clin Exp Res 2000; 24:1267–75.
- 320 [4] Boyd MR, Mackey MC. Alienation from self and others : the psychosocial problem of
321 rural alcoholic women. Arch Psychiatr Nurs 2000; 14:134–41.
- 322 [5] Limosin F, Gorwood P, Adès J. Clinical characteristics of familial versus sporadic
323 alcoholism in a sample of male and female patients. Eur Psychiat 2001; 16:151–6.
- 324 [6] Magnusson Å, Lundholm C, Göransson M, Copeland W, Heilig M, Pedersen NL.
325 Familial influence and childhood trauma in female alcoholism. Psychol Med 2012;
326 42:381–9.
- 327 [7] Legleye S. Géographie des consommations d'alcool en France. Rev Epidemiol Sante
328 Publique 2002; 50:547–59.
- 329 [8] Hill C, Laplanche A. La consommation d'alcool est Trop élevée en France. Presse
330 Med 2010; 39:58–164.
- 331 [9] Lahmek P, Aubin HJ. Alcoolodépendance: épidémiologie, prévention. In: AKOS
332 Encyclopédie pratique de médecine; éditions scientifiques et médicales. Paris:
333 Elsevier SAS. 2003;9:7–0990.
- 334 [10] Boyd MR, Bland A, Herman J, Mestler L, Murr L, Potts L. Stress and coping in rural
335 women with alcohol and other drug disorders. Arch Psychiatr Nurs 2002; 16:254–62.
- 336 [11] Boyd MR. Vulnerability to alcohol and other drug disorders in rural women. Arch
337 Psychiatr Nurs 2003; 17:33–41.

- 338 [12] Reynaud M, Malet L, Facy F, Glanddier P. Hospital morbidity of alcohol use
339 disorders in the center of France. *Alcohol Clin Exp Res* 2000; 24:1057–62.
- 340 [13] Malet L, Llorca PM, Boussiron D, Schwan R, Facy F, Reynaud M. General
341 practitioners and alcohol use disorders: quantity without quality. *Alcohol Clin Exp*
342 *Res* 2003; 27(1):61-6.
- 343 [14] Institut National de la Statistique et des études économiques (INSEE). Auvergne:
344 Insee.http://www.insee.fr/fr/insee_regions/auvergne/themes/reperes/reperes22/reperes
345 22.pdf.
- 346 [15] American Psychiatric Association. Diagnostic and statistical manual of mental
347 disorders, text revision. 4th ed. Washington, DC: American Psychological Association
348 2000.
- 349 [16] Boyd MR, Hauenstein EJ. Psychiatric assessment and confirmation of dual disorders
350 in rural substance abusing women. *Arch Psychiatr Nurs* 1997; 11:74–81.
- 351 [17] Limosin, F. Spécificités cliniques et biologiques de l'alcoolisme de la femme.
352 *Encéphale* 2002; 28:503–9.
- 353 [18] Institut National de la Santé et de la Recherche Médicale (INSERM). 2003. Expertise
354 collective, *Alcool: Dommages sociaux, abus et dépendance*. In: Paris.
- 355 [19] Bradley KA, Boyd-Wickizer J, Powell SH, Burman ML. Alcohol screening
356 questionnaires in women: a critical review. *JAMA* 1998; 280:166–71.
- 357 [20]. Potukuchi P, Rao P. Problem alcohol drinking in rural women of Telangana region,
358 Andhra Pradesh. *Indian J Psychiat* 2010; 52:339–43.
- 359 [21] Thompson R, Tabone JK, Cook JM. Predictors of engagement with mental health
360 services among mothers of children at risk of maltreatment. *Psychiatr Serv* 2012;
361 63:913–9.

- 362 [22] Reynaud M, Schellenberg F, Loisequex-Meunier MN, Schwan R, Maradeix B, Planche
363 F, Gillet C. Objective diagnosis of alcohol abuse: compared values of carbohydrate-
364 deficient transferrin (CDT), gamma-glutamyl transferase (GGT), and mean
365 corpuscular volume (MCV). *Alcohol Clin Exp Res* 2000; 24(9): 1414-9.
- 366
- 367 [23] Malet L, Reynaud M, Llorca PM, Chakroun N, Blanc O, Falissard B. Outcomes from
368 primary care management of alcohol dependence in France. *J Subst Abus Treat* 2009;
369 36:457–62.
- 370
- 371

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	SATO group n = 16	Non-SATO group n = 34	p
	Mean (SD) or %	Mean (SD) or %	Mean (SD) or %	
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

Variables	Bivariate analysis			Multivariate analysis		
	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	1.46-19	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.