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Alcoholic women and men: a comparative study of social and familial aspects and outcome

Mulheres e homens alcoolistas: um estudo comparativo de fatores sociais, familiares e de evolução

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Abstract **Objective:** Alcoholic men-women ratio has ranged from 14:1 to 2:1, suggesting that female alcoholism should be further studied. The purpose of the current study was to compare alcohol dependence severity and treatment outcome between alcoholic men and women.
Methods: In this longitudinal study, 114 male and 57 female alcoholics (ICD-10 criteria), who started treatment between 1990 and 1994 at the Botucatu Medical School Outpatient Clinic, were retrospectively and prospectively assessed up to July 1997. Semi-structured interviews were conducted and the severity of alcohol dependence was assessed (Short Alcohol Dependence Data – SADD).
Results/Conclusions: The results showed poorly structured families, 55.6% of women and 65.7% of men reported relationship problems and 74.1% of women and 61.1% of men reported domestic violence. When compared to men, women started abusing alcohol later in life (p=0.01) and, usually, with their husbands (p=0.00). The course of treatment did not differ between genders. Regardless of gender, the main factors associated with a better response to treatment were: degree of alcohol dependence severity (mildly and moderately dependent users had 5.59-fold better chances of improvement than those severely dependent), religious practice (2.3-fold better chances of improving) and follow-up length, which was negatively associated with chance of improvement (0.68-fold less chance of improvement than those who remained under shorter treatment).

Keywords Alcoholism. Gender. Treatment outcome. Therapeutics.

Resumo **Objetivos:** A proporção de ocorrência de alcoolismo em homens e mulheres tem uma variação de 14:1 até 2:1, mostrando a necessidade de estudos específicos para a população feminina. O objetivo deste estudo foi analisar o perfil e a evolução de alcoolistas, segundo gênero e gravidade da dependência.
Métodos: Realizou-se um estudo longitudinal retrospectivo de 114 homens e 57 mulheres alcoolistas (CID-10), inscritos no ambulatório da Faculdade de Medicina de Botucatu, no período de 1990-1994 e avaliados até julho de 1997. Utilizou-se um questionário semi-estruturado, e, para avaliação da gravidade do alcoolismo, o "Short Alcohol Dependence Data".
Resultados/Conclusões: Os principais resultados mostraram que a estrutura familiar estava comprometida com: relacionamento difícil para 55,6% das mulheres e 65,7% dos homens; violência familiar em 74,1% das mulheres e 61,1% dos homens. As mulheres iniciaram a ingestão mais tarde que os homens (p=0,01), em geral com seus cônjuges (p=0,00). Não houve diferença de evolução no tratamento entre os gêneros. Os principais fatores associados à melhor resposta ao tratamento, independentemente do sexo, foram: nível de gravidade de dependência do álcool (dependentes leves e moderados apresentaram 5,59 vezes mais chances de melhorar do que os dependentes graves); ser praticante de alguma religião (2,3 vezes mais chances de melhora do que os pacientes que não eram praticantes); e tempo de seguimento no programa, negativamente correlacionado a chances de melhora (0,68 vezes menos chances de melhora que aqueles que permaneceram por tempo menor em tratamento).

Descritores Alcoolismo. Gênero. Resultado de tratamento. Terapêutica.

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Introduction

Studies performed in Latin America from 1987 to 1992[1,2] show a predominance of male over female alcoholism of 10:1 to 3:1 (in Brazil it reaches 15.4% among men and 1.2% among women).[3] American studies present smaller variability in these rates, from 4:1 to 2:1.[4-8] There are few specific studies for the female population that take into account their characteristics and peculiarities, making more targeted health actions difficult.

Wilsnack & Wilsnack[8] highlight the universal and recurrent pattern in different societies and cultures of men drinking more than women do, regarding quantity and frequency. Despite social, educational and labor opportunity changes this difference remains. The decrease in the differences that occur between genders in this area would stem from the decrease in the quantity of alcohol ingested by men rather than from women's increase.[9,10]

Biologically, women would have different responses to the ingestion of alcohol due to, among other factors, differences in the volume of body fat and, therefore, to a smaller amount of water, besides a smaller quantity of enzymes which metabolize alcohol. As a consequence, it is thought that women need half of the dose ingested by men to become intoxicated, respected the weight and height ratio. At the same time, there were differences in the development of alcohol dependence which would occur in a shorter period among women, and in the vulnerability to medical complications such as hepatic cirrhosis, myocardopathy and Korsakoff Syndrome, among others.[8,11]

Several assumptions were raised to explain the differences in the prevalence rates found between men and women. Among them: women would not mention the use of alcohol; health professionals would underestimate the problem and would not investigate it; women are underrepresented in treatment programs and in research projects despite the fact they, as a rule, use much more the health system than men do.[2]

As a great number of questions remained unanswered, the purpose of this study was to establish the pattern of alcohol ingestion in the female population using data of patients followed by the Alcoholism Program of the Psychiatry Discipline of the Medical School in Botucatu (Unesp). For this purpose, we analyzed and compared the profile of alcoholics by gender and according to sociodemographic and economic variables, alcohol use history and dependence severity, family relationship and treatment outcome in order to provide information to support actions meant to improve the health of alcoholics.

Methods

Subjects

One-hundred and seventy-one alcohol dependent patients (CID 10)[12] enrolled in the Alcoholism Treatment Program of the Psychiatric Outpatient Clinic of the *Clinicas* Hospital of the Botucatu Medical School – Unesp (HC-UNESP) have participated in the survey and were subdivided in two groups by gender, established as follows:

- Group I: all women enrolled in the program (new case) from January 1990 up to December 1994 (totaling 57 women);
- Group II: composed by 114 men randomily chosen among those enrolled in the program (new case) in the same period, with a ratio of 2:1.

This ratio of two men for each woman to compose the groups was based on epidemiological data from the literature, which vary from 2:1[7] to 13:1.[2] We decided to use the lower ratio as we considered it feasible for the current study.

When we performed the interviews, 32 out of 57 women included in the study and 18 out of 114 selected men were undergoing a regular treatment. The remaining patients were directly contacted or through home visits. The interviews and assessments were performed in the first semester of 1997. In case of death, the information was collected from family members. All selected patients were found and assessed. The Ethical Commission of the HC-UNESP approved the project of the current study. Patients and family members were given information about the survey and its procedures and signed the informed consent.

Instruments used

- *Semi-Structured Questionnaire* (previously tested with alcoholic subjects of other Service): elaborated by the researcher, containing 72 closed questions and an open one, about the following data: demographic, social and economic, family violence history, alcohol use history, physical and mental health condition and types of previous treatment;
- *Short Alcohol Dependence Data* (SADD): standardized and self-applicable instrument used to assess the severity of alcohol dependence in the identified alcoholism cases. It was developed by Raistrick et al[13] and by Davidson & Raistrick,[14] and translated and validated by Jorge & Masur.[15] It generates a score from 0 to 3, defined as follows: never – 0 points, sometimes – 1 point, many times – 2 points and always – 3 points. Adding the total of points obtained by the patient when answering the instrument we obtained the following classification: 1-9 points: low or mild dependence; 10-19 points: medium or moderate dependence; and 20-45 points: high or severe dependence.

The SADD was administered in two moments: (a) initial SADD, applied by the staff that sees the patients as part of the service's routine at the initial phase of the treatment; (b) final SADD, applied by the author of the current study at the time of the survey interview.

Assessment of the patient's outcome

Patients' outcome was based in the data obtained through the SADD's instruments (initial and final) and in the clinical assessment of patients and was classified as:

1. improvement (abstinent or sporadically ingesting): abstinent for at least 3 consecutive months or using alcohol sporadically, without noteworthy physical, psychical and/or social complications; he/she was working and/or studying; there was improvement in the family/social affective relationships. Everyone (family members, patient and staff) should have observed these behavioral changes;

2. equal or worse: using alcohol or, although abstinent, presented clear and important physical, psychical, social and/or family complications.

This assessment was performed by professionals specialized on mental health who followed the patients during the treatment.

Statistical methods

We conducted a retrospective longitudinal study in which the selected group was followed up and assessed in two different moments: in the admission to treatment and at the interview.

Information was analyzed with the statistical programs Epi Info 6.0[16] and SPSS version 7.0.[17] The correlation between the interest variables was established by the chi-square test. Changes in the answers attributed to the treatment were verified through the McNemar's test. We used the logistical regression analysis[18] to analyze the patients' improvement prognosis. We chose as indicators the patient's outcome assessment, as defined above and the SADD. This analytical technique allows estimating the *odds ratio* (OR) or the ratio between the risk ranges versus the reference category of each factor. In our study, the reference value was attributed in such a way that variables with *odds ratio* higher than 1 indicate a favorable prognosis effect whereas odds ratio lower than 1 indicate an unfavorable prognosis. The variables selected for the regression analysis related to the treatment's outcome were: age (in years), gender, marital status, race, religion, whether or not practiced any religion, schooling (in years of study), family income, age of onset of the ingestion, time of dependence (in years), SADD previous to the treatment and treatment time in the program. The significance level was 5% and all tests were two-tailed.

Results

Table 1 presents the sociodemographic characterization and shows that the main concentration of women and men were between ages 30 to 44 and in that they were mostly married and had studied up to end of the 9th grade. Most patients came from Botucatu and lived with their family. Both genders were predominantly catholic (82.5% of women and 84.2% of men). Regarding ethnic differences, 33% of women and 15.8% of men were black (χ^2=6.90; p=0.01).

As for their professional situation, family income and the economic support of the patients' home, we could verify that a higher percentage of male patients had regular activities and were linked to a company, and had a family income higher than three minimum wages. However, many women worked regularly although without regular labor links. Their wage range was concentrated between two and three minimum wages and more women than expected had a monthly income up to one minimal wage (χ^2=10.81; p=0.00). In 53,7% of women, their spouses sup-

Table 1 - Socio-demographic and economic data of patients. Program of Alcoholism Treatment, FMB, UNESP.

	Gender					
	Males		Females		Total	
N	%	N	%	N	%	
Age (years)						
20 to 29	14	12.3	6	10.6	20	11.7
30 to 44	65	57.0	32	56.1	97	56.7
≥45	35	30.7	19	33.3	54	31.6
Race*						
Whites	96	84.2	38	66.7	134	78.4
Non-whites	18	15.8	19	33.3	37	21.6
Origin						
Botucatu	84	73.7	31	54.4	115	67.2
DIR-XI (Ersa-24)	25	21.9	16	28.1	41	24.0
Other ersas	5	4.4	10	17.5	15	8.8
Marital status**						
Single and separated	48	42.1	14	24.6	62	36.3
Married and widower	66	57.9	43	75.4	109	53.7
Schooling***						
Illiterate	7	6.1	12	21.1	19	11.1
Literate	107	93.9	45	78.9	152	88.9
With whom lives						
Alone	7	6.5	3	5.6	10	6.2
With the family	100	92.6	51	94.4	157	93.2
Others	1	0.9	-	-	1	0.6
Professional situation****						
Regular activities with labor rights	38	35.2	5	9.3	43	26.5
Activities without labor rights	19	17.6	18	33.3	37	22.8
Not-working for more than 15 days	5	4.6	-	-	5	3.1
Retired	14	13.0	1	1.8	15	9.3
Unemployed	32	29.6	2	3	34	21.0
Housewife	-	-	28	51.9	28	17.3
Household income (minimum wage)*****						
≤ US$100	16	14.8	15	27.8	31	19.1
US$ 101 to US$ 300	50	46.3	31	57.4	81	50.0
≥ US$ 301	42	38.9	8	14.8	50	30.9
Family budget******						
Patient	33	30.6	8	14.8	41	25.3
Spouse	11	10.2	29	53.7	40	24.7
Family members	64	59.2	17	31.5	81	50.0
Total	114	100.0	57	100.0	171	100.0

*χ^2=6.90; p=0.01 **χ^2=4.33; p=0.00 ***χ^2=8.56, p=0.00 ****χ^2=87.85; p=0.00 *****χ^2=10.81, p=0.00 ******χ^2=36.69; p=0.00

ported the home and in 59.2% of men, the support came from a family member (χ^2=36.69; p=0.00).

About 64.9 % of patients were referred by Health Services, 19.3% of women and 24.6% of men were referred by family members; by the company, 10.5% of men and 15.8% of women.

Table 2 shows data related to the family relationship before and after treatment. Before treatment we can verify that for 83.3% of men and 68.4% of women the family links were disturbed (χ^2=4.98; p=0.02).

There was a significant increase in the percentage of good links in the course of treatment both for men, 16.7% x 33.3% (p=0.00) and women 31.6% x 44.4% (p=0.00).

Concerning the problems of relationship with offspring, the differences between genders were significant before and after treatment. Women reported greater difficulties with children, even after her stop drinking (before: χ^2=4.35; p=0.03 and after: χ^2=6.5; p=0.01). Regarding the impact of treatment, we verified a decrease in the men's ratio (46.5% x 54.6%, p= 0.01) and a not significant one in women's (36.8% x 38.8%, p=0.5).

As for the problems showed by children, there was a decrease in behavioral problems after treatment among men (21.1% x 15.7% , p= 0.01), what did not happen among women (35.1% x 31.5%, p=0.5). The place where these problems showed up were not influenced by the treatment for both genders (p=0.12).

Regarding the situations of violence reported in Table 3, for both genders, they happened in 81.9% of cases (80.7% of women and 82.5% of men). After the treatment there was a decrease in the family violence for men (before, 82.5% reported violent episodes and after, only 61.1% of them continued to refer to these problems, p=0.00). The violence was generated or practiced by family members or spouses, that is, inside the domestic environment (75.4% of women and 70.2% of men), where spouses attacked their dependent partners (71.9% of women and 68.4% of men), while the opposite, that is, the patient attacked his/her spouse occurred in 49.1% of both women and men.

Both men (61.1%) and women (74.1%) still faced violence in the family environment even after the beginning of the treatment.

The treatment did not influence the occurrence of episodes related to the attacks performed by the patient.

Table 4 describes the history of alcohol use. It started before the age of 15 in 33.3% of women and 40.3% of men (χ^2=8.33; p=0.01). There was a family history of alcoholism among men (64.0%) and women (33.3% – χ^2=51.37; p=0.00). Women started the use of alcohol with family members and friends in 35.1%,

Table 2 - Family relationship by gender before and after treatment in the FMB – UNESP Program.

	Males					Females				
	Before		After		McNemar	Before		After		McNemar
	N	%	N	%		N	%	N	%	
Family relationship*										
Good links	19	16.7	37	33.3	P=0.00	18	31.6	24	44.4	P=0.00
Disturbed links	95	83.3	71	65.7		39	68.4	30	55.6	
Poor relationship with children**.***										
Yes	29	25.4	22	20.4	P=0.01	25	43.9	21	38.9	P=0.5
No	53	46.5	59	54.6		21	36.8	21	38.9	
Not applicable	32	28.1	27	25.0		11	19.3	12	22.2	
Children problems										
Behavior	24	21.1	17	15.7	P=0.01	20	35.1	17	31.5	P=0.5
Drug and alcohol use	7	6.1	7	6.5		6	10.5	5	9.3	
Do not occur	83	72.8	84	77.8		31	54.4	32	59.3	
Place where problems with children show up										
Family	26	22.8	20	18.5	P=0.12	18	33.3	22	38.6	P=0.12
School	6	5.3	5	4.6		4	7.4	4	7.0	
Social	82	71.9	83	76.9		32	59.3	31	54.4	
Total	114	100.0	108	100.0		57	100.0	54	100.0	

(before) χ^2 =4.98; p=0.02* *(before) χ^2 =4.35; p=0.03* ****(after) χ^2 =6.35; p=0.01*

Table 3 - Family violence before and after treatment in the Alcoholism Program - FMB- UNESP.

	Males					Females				
	Before		After		McNemar	Before		After		McNemar
	N	%	N	%		N	%	N	%	
Incidence of family violence*										
Yes	94	82.5	66	61.1	P = 0.00	46	80.7	40	74.1	P = 0.5
No	20	17.5	42	38.9		11	19.3	14	25.9	
Attacks underwent by the patient										
Spouse	78	68.4	32	29.6		41	71.9	23	42.9	
Relatives	2	1.8	31	28.7		2	3.5	17	31.5	
Others	7	6.1	6	5.6		3	5.3	3	5.6	
Several people	8	7.0	——			7	12.3	——		
Do not happen	19	16.7	39	36.1		4	7.0	11	20.4	
Attacks performed by the patient										
Spouse	56	49.1	53	49.1	P = 0.5	28	49.1	28	51.9	P = 0.5
Relatives	31	27.2	29	26.9		14	24.6	14	25.9	
Others	5	4.4	5	4.6		3	5.3	3	56	
Several people	9	7.9	9	8.3		6	10.5	4	7.4	
Do not happen	13	11.4	12	11.1		6	10.5	5	9.3	
Total	114	100.0	108	100.0		57	100.0	54	100.0	

**before vs. after = χ^2 = 12.55; p=0.00*

35.1% did it alone, and with the spouse the remaining ones (29.8%). As for men, 19.3% started the ingestion with family members and friends and 79,8%, alone. Only one reported to had started with his wife (0.9%). The reason claimed to consume alcohol differed for both genders (χ^2=43.29; p=0.00), and the incentive from friends and family members was mostly mentioned by both genders. However, 33.3% of women reported incentive from their spouses, what did not happen with men. The consume of booze was reported by 89.5% of the patients. Concerning the places of alcohol use, the home appeared in 71.9% of female cases, while the bar was mentioned by 57.0% of men (χ^2=69.13; p=0.00).

The incentive to seek treatment came mostly from family members in both genders (77.2% of men and 63.2% of women).

Concerning the length of time needed for the dependence to begin, it was greater than expected in women, from 2 to 3 years (44.4%) and from 4 to 5 years for men (38.9%)

Women needed the help of third parties to buy drinks, while men did it by themselves (χ^2=38.79; p=0.00), and women also mentioned shame as the main reason to not purchasing alcohol (χ^2=40.44; p=0.00).

Regarding whether there was or not alcohol withdrawal at the time of the interview, 48.1% of women were abstinent. As for women, 18.5% were abstinent for up to three months and 29.7 for more than that period. In the male group, 41.7% were abstinent, and 12.0 were abstinent for up to three months, whereas the remaining 29.7% overcame this figures, data similar to that of females and that were non-statistically significant.

Concerning the dependence severity (Table 5), data showed that both men and women presented severe initial dependence (94.2%). The final SADD showed an improvement in the severity, although 56.1% of women and 57.0% of men were still severely dependent.

As for the patients' outcome, 46.3% of them presented an improvement in the quality of life and in the dependence, whereas 53.7% were kept in the same situation or even worse, regardless the degree of dependence.

The factors identified as the possible predictors of an im-

Table 4 - Patients' alcohol use history, Alcoholism Program, FMB, UNESP.

	Gender					
	Male		Female		Total	
	N	%	N	%	N	%
Age of onset of alcohol use (in years)*						
≤15	46	40.3	19	33.3	65	38.0
16 to 20	53	46.5	20	35.1	73	42.7
≥21	15	13.2	18	31.60	33	19.3
Family history**						
Family	73	64.0	19	33.3	92	53.8
Spouse	2	1.8	11	19.3	13	7.6
Family and spouse	4	3.5	19	33.3	23	13.5
Does not happen	35	30.7	8	14.0	43	25.1
With whom started drinking***						
Family members/friends	22	19.3	20	35.1	42	24.6
Spouse	1	0.9	17	29.8	18	10.5
Alone	91	79.8	20	35.1	111	64.9
Reason for drinking****						
Incentive from the spouse	-	-	19	33.3	19	11.1
Incentive from friends/family members	99	86.8	31	54.4	130	76.0
Others	15	13.2	7	12.3	22	12.3
Beverage ingested						
Booze	104	91.2	49	86.0	153	89.5
Others	10	8.8	8	14.0	17	10.5
Place of consumption****						
Home	13	11.4	41	71.9	54	31.6
Bar	65	57.0	4	7.0	69	40.0
Several	36	31.6	12	21.1	48	28.1
Buyer******						
Uses third-parties	4	3.5	23	40.4	27	15.8
Does not use third-parties	110	96.5	34	59.6	144	84.2
Who buys alcohol*******						
Family members or friends	3	2.6	19	33.3	22	12.9
Spouse	2	1.8	4	7.0	6	3.5
Does not happen	109	85.6	35	59.6	144	83.6
Reason to not purchase alcohol********						
Shame or secrecy	1	0.9	16	28.1	17	9.9
Easiness	3	2.6	7	12.3	10	5.8
Does not happen	110	96.5	34	59.6	144	84.2
Who incentives the treatment*********						
Mainly family members	88	77.2	36	63.2	124	72.5
Mainly friends	26	22.8	21	36.8	47	27.5
Time of dependence**********						
2 to 3 years	27	25.0	24	44.4	51	31.5
4 to 5 years	42	38.9	13	24.1	55	34.0
Total	114	100.0	57	100.0	171	100.0

*χ^2=8.33; p=0.01
**χ^2=51.37; p=0.00
***χ^2=45.82; p=0.00
****χ^2=43.29; p=0.00
*****χ^2=69.13; p=0.00
******χ^2=38.79; p=0.00
*******χ^2=35.90; p=0.00
********χ^2=40.44; p=0.00
*********χ^2=3.76; p=0.05
**********χ^2=6.87; p=0.03

Table 5 - Logistic regression analysis for predictive factors of clinical outcome of Alcoholist Patients of the Alcoholism Program of the FMB – UNESP.

Variables	B	SE	Wald	R	Exp (B) OR	Confidence interval Bottom limit	Upper limit
Age (in years)	-.0209	.0169	1.5338	0.00	0.9793	0.9474	1.0123
Gender(female)	-.0767	.3768	.0414	0.00	0.9262	0.4426	1.9384
Race (non-whites)	-.450	.4238	.3343	0.00	0.7827	0.3411	1.7960
Attends church							
Yes	.8607	.8607	4.2890	.0988	2.3649	1.0472	5.3407
Schooling (in years)	.0854	.1852	.2125	0.00	1.0891	0.7576	1.5657
Ingestion age of onset							
(in years)	.0203	.0265	.5868	0.00	1.0205	0.9688	1.0750
Dependence severity							
Initial SADD (mild/moderate)	1.7216	.8183	4.4267	.1017	5.5936	1.1251	27.8101
Time of follow-up (in years)	-.3725	.1095	11.5826	-.2022	0.6890	0.5560	0.8539
Constant	-.672	.9112	.7090				

Dependent variable: Improved; Not-improved

provement were: to practice any religion [2.3 (1.0-5.3)]; initial SADD (mild or moderate) [5.6 (1.1-27.8)] and follow up time in the group [0.7 (0.5-0.8)] was found as a predictor of worsening the condition.

Discussion

Analyzing the results, we noted that some aspects were similar between genders, such as age range; catholic religion, predominant in Brazil[21] and to live with their family members. These data are similar to those found by other authors.[19-21]

It seems that, religious faith may be an important factor in the treatment, when the patient participates in ceremonies or attends to a church more than twice a week and prays daily.[22] On the other hand, the remaining socioeconomic data differed. Therefore, 24.6% of women and 42.1% of men were single or separated, whereas 75.5% of women and 57.9% of men were married or widowers. These data also agree with the literature findings in which the rate of single and/or separated males is higher than that of females.

Santana & Almeida Filho[2] noted that high rates of alcoholics living alone or separated are compatible with the social history of alcoholism in which the patient's progressive alienation from his/her environment culminates frequently in the tearing apart of family links. The same authors found higher rates of subjects living alone or separated in the groups of patients with weekly binge episodes and/or daily ingestion of alcohol.

Regarding the race, there was a predominance of black subjects among women. These data differ from those mentioned by Grant et al[6] (1993), that did not note ethnic differences between genders. However, a Mexican study[23] that assessed alcohol and drug use trends among college students, pointed out that black people drink in average half than whites and Hispanic. We need to consider cautiously the differences observed in the rate of diseases between ethnic groups, without the appropriate control of the effect of other socioeconomic factors, such as social class.[24] Environmental influences are very interrelated and may be reflected in the different coefficients obtained by the ethnic group.

The Program of the Medical School of Botucatu attracts subjects that have scarce economic resources. In the case of alcoholic subjects, the only ones that would seek the service would be those without other alternatives. This situation may be changed as times passes by and with changes in the attitude and perception of the clinical pictures both of patients themselves and of those that referred them.

As a rule, the economic support of the alcoholic's house was carried out by a family member, what proved that as dependence increases, he/she – mainly male subjects, become unable to provide the family support and becomes progressively more dependent of other persons' financial support.

Most patients of both genders lived with family members. Although the family relationship have become difficult due to the dependence of alcohol, family members somewhat tried to keep the links, taking care of the patient. We observed that the family structure was often compromised, both before and after treatment.

The treatment influenced positively both male and female patients and increased the percentage of good links in the family relationship. Probably, with therapeutic support, these patients increased their period of abstinence, generating a decrease in the conflicts and an increase in their participation in the family routine.

Most patients reported situations of physical and verbal attacks previous to the treatment. After the beginning of the treatment, there was a decrease in the family violence among men but not among women. Before the treatment, the aggressor, mostly, was a family member (the spouse). These data are compatible with the literature[25-27] and point out to the high prevalence of violence among dependent persons. However, the violence practiced by men and women cannot be equaled, as the potential to occur physical lesion is so bigger for the latter. Therefore, regarding violence[28] it was found that women have six fold greater chances of needing medical care in case of violent families followed up and the issue deserves further investigation. The treatment did not contribute to diminish aggressions performed by the patient.

The relationship with their children was reported, before the treatment, as something bad or having some degree of difficulty in 69.3% of cases for both genders. Most reported problems were related to the child's behavior (shyness, aggressiveness, isolation, etc.) and children alcohol and drug use. After the treatment started, there was improvement in the male picture and persistence/maintenance of the female picture. The treatment did not influence the place where children's problems

showed up among male and female patients. These results could be explained by the fact that women are responsible for children care. Alcoholic mothers, originated from disturbed homes, could have children with many sequels such as social maladjustment, low self-esteem, insecurity, traits of a depressive personality and cognitive problems, among others.[29]

Up to adolescence and early adulthood the beginning of alcohol ingestion was much more common among men than among women. Reciprocally, in groups of people with later onset, women were more frequent than men were. This difference was statistically significant and similar to other reported data.[30] Some authors consider that the fact that the onset happens in the adolescence is often associated to family issues (poor environmental conditions and social perspectives), to the easiness of acquisition, to the supply increase, to the incentive from friends and to the reinforcement received from the media.[31-34]

Data found in this survey correspond to those in the literature, showing that there are significant differences between genders concerning the start of alcohol ingestion and the earlier onset of dependence.[25,31,35] However, Pechansky[36] studying a sample of adolescents of Porto Alegre did not find differences between genders concerning the age of onset of ingestion.

There was no difference between the male and female alcoholic population regarding the age they seek treatment. Nevertheless, it took less for women to begin the dependence, what would indicate that complications might happen earlier among women (they start drinking later, although they need to be treated earlier). Indeed, in the studied population, 44.4% of women reported they became dependent only two years after the onset of use, whereas men took five years to become dependent (χ^2=6.87; p=0.03). These data disagree with the literature, in which women would seek treatment earlier than men, probably not mainly due to alcoholism than as a result of other family, interpersonal and health problems.[37,38]

According to Edwards[39] the restrictions to the ingestion of alcohol by women, would be responsible for a later diagnosis of alcoholism. Other factors would be the difficulties and prejudices of the health staff to investigate or even to consider the use of alcohol as relevant in this group. Even when confronted with the physical, psychical and/or social consequences of alcoholism, professionals would not make any correlation with it. In a study in the *Johns Hopkins Hospital*, it was verified that the diagnosis of alcoholism was ignored in 34 to 93% of patients, mainly among higher-class women.[7]

The scarcity of specific epidemiological studies on the female population and/or the fact that they are not divulged in the educational institutions is not divulged in the educational institutions are also factors that would explain these findings.

Among women the search for treatment occurred, in the current study, mainly under the influence of family members (parents and/or children) and friends, whereas men received more incentives from their wives. These data were similar to those in the literature. Dahlgren,[40] Duckert[38] and Bernik[19] highlighted the importance of the presence of a non- alcoholic person in the women's inner circle to help them to seek help and afterwards to remain abstinent. The wife in the case of men usually performs this role.

Concerning the variable 'with whom he/she started to drink', women reported the initiation with family members and/or friends, while men did it alone. Only women reported the beginning with the spouse. When asked about the reasons to drink, men pointed out to the incentive from fiends and family members as the main factor, while women reported the incentive from both friends and family members and from the spouse. In this item, men did not report the participation of the spouse.

The preferred beverage mentioned by patients of both genders was booze and the most common place to drink was the home for 71.9% of women, followed by the bar in 7.0% of the cases. Men used to drink more frequently in bars or at home. Most patients claimed to drink out of home (bar or similar places) where they were buyers and consumers at the same time. The difference between genders concerning this variable was statistically significant (χ^2=69.13; p=0.00). This situation could explain in part the fact that diagnosis is generally later among women, as they report a hidden drinking ritual, which is protected by the domestic environment and, therefore, lately perceived by family members.[41] Besides, until recently, for cultural rules, women did not use to go to bars, a widely-accepted behavior of men.

As for the person who buys alcohol, there is a statistically significant pattern among genders, 40.4% of women used third parties to purchase drinks, whereas only 3.5% of men did it. For both genders buyers were mostly family members or friends (35.9%). The main reason claimed by women (35.9%) to ask others to buy alcohol was the shame or the need to keep this use socially hidden. The second reason, the easiness, claimed by 12.3% of women, may also reflect indirectly the wish to keep secrecy, already mentioned. We may suppose that, at least in the case of housewives, the prejudices related to the use of alcohol justify this behavior. During the interview and in several sessions of the treatment group, some patients reported to had asked buyers to put the alcohol in soft drink bottles, as this would make it easy to 'hide it'.

In the family history of alcoholism, both genders had a high proportion of dependent relatives. Besides, the family history of alcoholism among men was two fold that of women (64.0% vs. 33.3%). On the other hand, the spouse was reported as dependent by 19.3% of female cases and in only 1.8% by male ones. These differences were also statistically significant (χ^2=51.37; p=0.00). This information is compatible with the literature about the issue, in which is described the high incidence of family alcoholism history, regardless the gender, the same that exists in Brazilian researches[25,42] that compared genders in specific studies about the male population.[26,43] Others found a greater incidence of a history of alcoholism in the family of dependent women.[31,37]

These data reinforce the discussion about the 'alcoholic marriage', in which women originated in families with alcoholism history would marry alcoholics, reproducing in that way and/or maintaining the relationships experienced in the past.[34,41,44,45]

In the service in which this study was carried out there was no specific program to treat women. Since 1989 there has been

a separate space for women. Before that, some women even seek treatment but there was no compliance, just one or two consultations. The report of the staff is that they did not 'dare to speak' during the group sessions and abandoned the program. Since then, male and female groups functioned separately and it was observed that female patients comply, they bring friends and the content of groups is different from that of male groups. They talk less about alcohol proper and a lot about their relationships, their problems with children, relatives and spouses and discuss their difficulties. Men talk more about drinking and other more concrete complications, be they physical or labor-related. However, according to our point of view, these are not inherent characteristics of alcoholics but rather of men and women proper.

We observed that the family motivation for the treatment was an important factor in both groups (63.2% of women and 77.2% of men), although there were differences regarding the support they received (χ^2=3.76; p=0.05). The data showed, significant, that men received greater family support, whereas women received greater support from friends. When they attended the service accompanied by family members, as a rule they were their children and/or siblings and mothers (33.3% of women and 30.7% of men). Forty-five point five of women and 43.9% of men were alone, without the presence of their family members. Men came accompanied by their wives in 25.4% of cases. This situation allow family members to participate in the treatment (group of alcoholics' family members), one of the service's main goals. In these groups, it was discussed the conception of alcoholism as a disease and not as problem of character, trying to provide the family member with another view of the condition. The support provided by the family and/or by a significant person is considered as important for the treatment, as it helps to face up the great number of difficulties and changes in the family relationships that occur in this severe disorder, even if the changes observed during the treatment are smaller than expected. Similar results and approaches were reinforced in the literature, which discusses the need of specific treatments for the female dependent population.[30,45]

The SADD applied at admission to treatment showed that most patients had a severe dependence (93.0% of females and 94.7% of males). As for men, they began the ingestion earlier and reached this level of severity when younger. The final SADD applied by the researcher at the interview showed that 56.1% of women and 57.0% of men had severe dependence; 12.3% of women and 11.4% of men had moderate dependence and 26.3% of women and men had mild dependence. The logistic regression analysis showed that patients who started the treatment with mild and moderate dependence had 5.59 fold (variation: 1.12 to 27.8) more chances of improvement than those who started it with severe dependence. Patients who attended church had 2.3 (1.04-5.3) fold more chances of improvement than the others. The follow-up time in the treatment was negatively correlated to the improvement chances. Patients who improved their condition were those with shorter follow-up time. These results are similar to those reported by Sanchez-Craig[56] in Brazil and by many other authors' abroad. Chances of improvement depend much more on the condition severity than on other factors.[11] On the other hand, these data suggest that there was an improvement in the dependence severity after the search for treatment.

It must be highlighted that the definition of improvement can be considered as more complex and comprehensive than that measured only by drug and/or alcohol withdrawal. Therefore, a patient may be abstinent due to physical (cirrhosis, peptic ulcer) or psychical (severe psychiatric condition) complications and not to an effective improvement. Currently, an improvement is considered to be effective based on the ingestion pattern (abstinence and significant decrease according to the patient, relative and therapist opinion), stable and satisfactory emotional relationships, good or fair labor, physical/psychical conditions, in one word, a more satisfactory quality of life.[8,11]

Comparing the patient's outcome and the period of abstinence, we observed that the greater this period, the greater the percentage of subjects that had any improvement (40.0% of women with more than one year of abstinence and 29.2% of men in the same situation). This result was statistically equivalent between genders. Furthermore, comparing the patients' global outcome, both genders had the same chance of evolving well (48.2% of women and 45.4% of men). There are several studies that report worse prognosis for the female population.[47] This was not the case in the current study, although our patients pertain to a lower socioeconomic level and live with alcoholic partners and, therefore, had fewer possibilities to live in an 'drinking-free' environment at home.

These criteria for improvement, stability or worsening of the condition were used to verify possible changes in the severity of alcohol dependence, which are influenced by the treatment. Although one of the service's goals is the withdrawal, many patients can reach only a level of controlled drinking. Therefore, a less severe dependence reported by the patient and confirmed by family members was considered as one of the parameters of improvement assessment.

Previously, few female patients had at least sought treatment. Therefore, the compliance and outcome may be attributed to the implementation of a separate and exclusive group for dependent women, apart from that of men. Women found a space to discuss their problems and to receive a greater support.

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