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PREVALENCE OF ALCOHOL-RELATED MEDICAL PROBLEMS AMONG EXCESSIVE AND HEAVY-DRINKING WOMEN IN A ROMANIAN EMERGENCY HOSPITAL

*Corina Silvia POP, Cristian POMOHACI, Romită IUCU,
Mihaela STINGU, Roxana Maria NEMES*

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Prevalence of Alcohol-Related Medical Problems among Excessive and Heavy-Drinking Women in a Romanian Emergency Hospital

Corina Silvia POP¹, Cristian POMOHACI², Romiță IUCU³,
Mihaela STINGU⁴, Roxana Maria NEMES⁵

Abstract

Today alcohol consumption among women represents a global health problem by the social, medical and economic effects involved. Gender differences as to alcohol consumption refer both to number of people affected and different socio-medical pathology. An epidemiological study was initiated to evaluate the prevalence and types of alcohol-related medical affections developed by excessive and heavy-drinkers women hospitalised in an internal medicine service. The study was an epidemiological unicentric prospective qualitative and quantitative one. All adult women hospitalised at the Internal Medicine Department during one year were registered. Of the patients who admitted that they drank alcohol, 97 women were included in the study group; they declared they used to drink two or more drinks per day, viz. 8 or more drinks per week. The study group comprised women considered as excessive alcohol consumers. 69.1% were 41-69 years old, 58.8% had higher and secondary education and 72% lived in urban areas. 68 patients presented clinical symptoms of the alcoholic liver disease, 8.2% were diagnosed with alcoholic cardiomyopathy, 41.2% with at least one psychiatric affection. The general mortality from all causes in the study group was 17.5% and the complications of the liver disease represented the cause for death in 41% of total. The study covers a broad pathology, from gastroenterological to neuropsychiatric aspects, aiming an exhaustive presentation of alcohol-related medical problems with excessive and heavy-drinkers women. Further investigations should focus on the connections between consumption and certain diseases and determine significant independent risk factors with prognosis value and also on a more detailed research of the implications on public policies (social and educational).

Keywords: alcohol consumption, female drinkers, medical perspective, social problem, social public policy

¹ Carol Davila University of Medicine and Pharmacy Bucharest; Emergency University Hospital Bucharest, ROMANIA. E-mail: cora.pop@gmail.com (corresponding author)

² Institute of Educational Sciences, Bucharest, ROMANIA. E-mail: cristian@ise.ro

³ University of Bucharest, Faculty of Psychology and Educational Sciences, Bucharest, ROMANIA. E-mail: romita.iucu@unibuc.ro

⁴ University of Bucharest, Faculty of Psychology and Educational Sciences, Bucharest, ROMANIA. E-mail: mihaela.stingu@fpse.unibuc.ro

⁵ Marius Nasta National Institute of Pneumology. ROMANIA. E-mail: roxa.nemes@gmail.com

Introduction

Alcohol consumption represents today a global health problem, by the dimension of the phenomenon but also by a multitude of social, medical and economic effects involved. The active substance that alcoholic drinks contain is ethanol, considered psychoactive, due to its effects on perception, level of conscience, cognition and judgment, and also on individual behavior (NIH, 2008).

The use of alcoholic beverages can have as a consequence the appearance of different medical affections – digestive, cardiovascular, neuropsychiatric, oncologic, obstetrical & gynecological and traumatological, as well as varied social consequences, ranging from professional failure and family tensions determined by nonfulfilment of roles and responsibilities (Buzducea, 2009) and up to violence and murder. Therefore, we can define social consequences of alcohol as “changes, subjectively or objectively attributed to alcohol, occurring in individual social behavior or in social interaction or in social environment” (Klingemann & Gmel, 2001: 14). Acute alcoholic intoxication, with its immediate social and medical effects - addiction and the chronic overuse of alcohol, are the important implications of this human habit (Rehm *et al.*, 2003). Of the 77 million people that bear the consequences of alcohol consumption, most of them are men, women representing only 13 million, with a ratio of 5 to 1 in men’s favor (WHO, 2005). This ratio shows that in Western developed societies, as well as in developing countries, regular social alcohol consumption represents especially a men’s habit, without being considered stigmatizing (Nolen-Hoeksema, 2004). From the Global Health Foundation data, the idea emerges that in some parts of the world, namely in tradition-connected societies of other religions than the Christian one (e.g. Muslim), where women are deprived of their rightful status; alcohol consumption is very low, which contributes to a lower annual percentage of women suffering from the consequences of chronic drinking (WHO, 2005).

Gender differences in point of alcohol consumption do not refer only to the number of people affected, but to different socio-medical pathology. This is the reason why experts recommend that health and social policies should be different in function of sex (Nolen-Hoeksema, 2004). Therefore, alcohol drinking and its effects on women is the subject of a distinct global approach, linked to what is generically called Woman’s Health (WHO, 2005). From a social perspective, women face risks, especially a woman who drinks seems to signal that she is more approachable, a large part of the unwanted sexual advances being mediated by alcohol (Klingemann & Gmel, 2001). Therefore, from the social and medical viewpoints, women who are heavy drinkers bear stigmatization, physical and sexual abuse, unwanted pregnancies and sexually transmitted diseases (STIs). The medical affections determined by excessive alcohol consumption at women are vast, with numerous gender and age particularities (Sato *et al.*, 2001). The different evolution of alcohol-determined diseases seems to have a certain

physiopathological level, linked with the presence of the sexual female hormones - oestrogen especially, and with its receptors of digestive enzymatic particularities, such as the hepatic ones, and it is also linked with the anthropological differences - body mass value and structure (Ely, 1999; Allen, 2009).

It is well known that at a lower level of alcohol consumption than at men, women more frequently develop affections such as digestive, cardio- and neuro-vascular, oncological, as well as hepatic diseases, some of them having a dramatic evolution (Bush, 1998; Rumpf *et al.*, 2002). A lower quantity of alcohol, in comparison with that drunk by men, determines women to get drunk faster, display digestive and especially hepatic affections more frequently - alcoholic liver disease, pancreatitis and acute gastritis (Greenfield *et al.*, 2007).

Gender related susceptibility - pathophysiological frame

Although with women the alcohol quantity is lower than with men, the predisposition towards alcohol related organ injury is higher for women. This predisposition seems to be connected with various physiopathological mechanisms, some of them known, having oestrogen as a main cause (Sato *et al.*, 2001; Allen, 2009). The different pharmacokinetics with women is the first mechanism involved in gender susceptibility (Liu, Nguyen, & Colditz, 2015). The increased level of alcohol in the blood after drinking seems to be the mechanism by which women get drunk faster than men at lower quantities consumed (Baigent, 2003).

Another mechanism is linked to alcohol elimination rate, different for women, which modifies the serum and the acetaldehyde hepatic level. Alcohol determines the excess of endotoxins levels in the portal circulation, with consequences over the proinflammatory cytokines production initiation, representing the third mechanism exacerbated, involved in the alcohol related injury pathogenesis (Sato *et al.*, 2001). The different metabolization of alcohol at hepatic level with women represents another pathogenesis link involved in the gender difference of the alcohol effects (O'Shea, Dasarathy & McCullough, 2010).

Objectives

Considering the above, this epidemiological study was initiated to evaluate the prevalence and types of medical affections developed by women who excessively drink alcohol and are hospitalised in an internal medicine service and the educational, social, psychological implications of the phenomenon of alcoholism with women. The identification of certain social means of increasing the quality of life.

Subjects and Methods

We initiated an epidemiological unicentric prospective qualitative and quantitative study throughout one year. We registered all adult women (>18years old) who were hospitalised at the Internal Medicine Department III of the Emergency University Hospital Bucharest. Their epidemiological data were recorded (age, living in rural or urban area, marital status, education), as well as their clinical data from admission to discharge (diagnosis upon hospitalization and at the end of the treatment). All women patients were asked during anamnesis if they usually consume alcoholic beverages. The ones who answered positively and were conscious and cooperative, and certainly literate, were given a questionnaire comprising questions referring to: type of alcohol drunk, amount drunk, how long they have been drinking and family drinking history. The usual amount of alcohol consumption was determined from the self-reported number of days with alcohol drinking and the average amount drunk per day when they drank alcohol over the last 12 months.

The terms used were defined as follows. One drink, which was equivalent to 10 g ethanol, represented 12oz of beer, 4oz of wine or 1oz of Romanian traditional brandy. The average daily alcohol consumption was estimated by: number of drinks on a drinking day \times 10 g \times number of drinking days over the last 12 months/ 365 (NHANES, 2014; NIH, 2008).

Moderate alcohol consumption was defined as 1–19g per day; excessive alcohol consumption was defined as an average daily consumption of 20+g. A subcategory of excessive alcohol consumption considered as heavy alcohol consumption was defined as 30+g per day. For men, heavy drinking is typically defined as 15+ drinks per week. For women, it is 8+ drinks per week (Younossi *et al.*, 2013; NIH, 2008). From the patients who admitted that they drank alcohol, we included in our study group, the women who declared they drank 2+ drinks per day, viz. a consumption of 8+ drinks per week. They were considered the study group comprising those defined as excessive alcohol consumers. The control group was composed of women hospitalised at the same time in the Internal Medicine Department III, with similar epidemiological criteria – patients with diverse medical affections: ischemic heart disease, cardiac failure, arterial hypertension, BPCO, diabetes mellitus, stroke, cancer, etc. The patients' clinical data and history were completed with the psychiatry test, where the case was, and the results of the specialized tests: abdominal and cardiac ultrasound, abdominal CT scan, respiratory, neurological and oncological tests. All the women had specific blood tests carried out. In certain cases, the family helped completing anamnesis with information about the patient's morbidity history, should she omitted some details. We registered the general mortality and the mortality due to a specific cause. All the patients signed the Informed Consent and we had the approval of the Hospital Ethical Committee. We excluded from the study the women who

died in less than 24 hours from hospitalization, the ones who did not sign the Informed Consent, pregnant women and those who were readmitted various times during the study. In view of validity analysis of the measurements carried out, we calculated the Alpha-Cronbach coefficient by means of the SPSS statistical software and we obtain a value higher than 0.80 (0.82) which ensures full measurement validity.

Results

Out of the 1,190 women hospitalized participants in this research throughout the period when the study was carried out, 97 patients (study group) declared that they drank 2 drinks per day or 8+ drinks per week. These patients were included in the study as the excessive alcohol consumption group. Of the 97 women, 67 or 69.1% were 41-69 years old, 58.8% had secondary/higher education and 72% lived in an urban area. Of all the patients, 46.4% were married and 52.6% declared that their partners also consumed alcoholic beverages. As to number of drinks, the average was 3 drinks per day and 12 drinks per week, with a reported maximum of 5 drinks per day and 25 per week. The results showed a drinking range of 5-30 years (*Table 1*).

Table 1. Study group epidemiological characteristics

<i>Characteristics</i>	<i>n (%)</i>
Age group	27- 79 year
18-40	10 (10.3%)
41-69	67 (69.1%)
? 70	20 (20.6%)
Place of living	
Rural	27 (27.8%)
Urban	72 (72.2%)
Marital status	
Single	13 (13.4%)
Married	45 (46.4%)
Divorced	19 (19.6%)
Widowed	20 (20.6%)
Highest education level	
Primary	40 (40.2%)
Secondary	31 (32%)
Higher (university)	26 (26.8%)
Types of alcoholic drink *	
Wine	36 (36.7%)
Beer	13 (13.4%)
Whisky/ gin	22 (22.7%)
Tuica (Romanian brandy)	26 (26.8%)

**there are women who drink more than one type of alcohol beverage*

Pattern of alcohol consumption	
No of years of consuming	5-30 (15%)
No of drinks /day	2 -5 (2%)
No of drinks /week	8-25 (10%)
Excessive consumption	16 (16.5%)
Heavy consumption	26 (26.8%)
Couples who drink together	51 (52.6%)

Table 2. *Common medical affections of study group patients (UTI=urinary tract infection)*

<i>Type of Affection</i>	<i>Study Group (n=97)</i>	<i>18-40 year (n=10)</i>	<i>41-69 year (n=67)</i>	<i>?70 (n=20)</i>	<i>Comments</i>
Digestive diseases	77 (79.4%)	8 (80%)	56 (83.6%)	13 (65%)	
Alcoholic liver disease	17 (17.5%)	6 (60%)	10 (14.9%)	1 (5%)	At least one of the diseases in the digestive spectrum
Cirrhosis	31 (32%)	2 (20%)	26 (38%)	3 (15%)	
Alcoholic hepatitis	14 (14.4%)	5 (50%)	8 (11.9%)	1 (5%)	
Acute pancreatitis	8 (8.2%)	1 (10%)	5 (7.5%)	2 (10%)	
Cardiovascular diseases	63 (64.9%)	1 (10%)	45 (67.2%)	17 (85%)	At least one of the diseases in the cardiovascular spectrum
Arterial hypertension	11 (11.3%)	1 (10%)	9 (13.4%)	1 (5%)	
Cardiac failure	13 (13.4%)	-	5 (7.5%)	8 (40%)	
Alcoholic cardiomyopathy	8 (8.2%)	-	7 (10.4%)	1 (5.0%)	
Neurologic diseases	66 (68.0%)	6 (60%)	42 (62.7%)	18 (90%)	At least one of the diseases in the neurologic spectrum
Stroke	3 (3.1%)		1 (1.5%)	2 (10%)	
Cognitive impairment	46 (47.4%)	2 (20%)	29 (43.3%)	15 (75.0%)	
Alcoholic neuropathy	38 (39.2%)	-	28 (41.8%)	10 (20%)	
Alcoholic myopathy	27 (27.8%)	3 (30.0%)	22 (32.8%)	2 (10%)	
Other disorders					
Cancer	14 (14.4%)	1 (10%)	11 (16.4%)	3 (15%)	Breast, Genital, Hepatic, urinary Bladder, Colorectal, Lung, Pancreas
Infections	11 (11.3%)	1 (10%)	8 (11.9%)	2 (10%)	Skin 19 (19,6%), Pneumonia 4 (14,4%), UTI 16 (16,5%)
Diabetes mellitus	26 (26.8%)	-	19 (28.4%)	7 (35.0%)	
Physical injury	8 (8.2%)	7 (70%)	29 (43.3%)	9 (45.0%)	

Neurological effects of alcohol

The neurological pathology was present in a high number of women - 67. Therefore, we diagnosed 17.5% with stroke, of whom 7 (41.2%) non-diabetic/smoker. 33% had cognitive impairment and cortical atrophy, of whom 18 under 70 years old, epilepsy 13.4% and alcoholic neuropathy - 40.2%. A considerable 39 patients (40.2%) presented more than one neurological diagnosis.

Malignancy

15 study group patients were diagnosed with cancer, most frequently breast cancer, i.e. 6 (6.2%). Other cancers found were: genital, hepatic, colon, urinary bladder, lung and pancreatic.

Infections and physical injury

A frequent cause of hospitalization was represented by various infections, out of which the most severe was community-acquired pneumonia - 14 patients (14.4%); skin infections were common – 19.6%, followed by urinary infections - 16 patients (16.5%). Four patients died by infections, two from pneumonia and two from septic metastases. Injury represents another important cause of morbidity, 32 patients (33%) had at least once an injury with potential of severity, for excessive women drinkers, as they sometimes are victims of physical and/or sexual abuse, car and/or household accidents. Some of these injuries may result in extended immobilization and occurrence of infections.

Psychiatric and psychosocial spectrum of disorders

The psychological investigations, the psychometric and psychiatry tests showed interesting data with regard to the psychosocial profile and especially to the motivational pattern and diagnosed psychiatric affections. Psychologists divide motivation for drinking alcohol into pleasure, social consumption and the necessity to cope with family and job problems. Thus, 57 (58.8%) patients said that they drank for pleasure, out of whom 46 (80%) were between 41 - 69 years old. 26 patients (26.8%) had no education. 40 patients (41.2%) were diagnosed with at least one psychiatric affection (major depression 11.3%, antisocial behavior 7.2%, phobia 2.1%, somatization 15.5% - *Table 3*).

Table 3. Study group psychosocial characteristics and psychiatric comorbidities

<i>Characteristics</i>	<i>Study group (n=97)</i>	<i>18-40 year (n=10)</i>	<i>41-69 year (n=67)</i>	<i>?70 (n=20)</i>
Motivation to drink				
Pleasure	57 (58.8%)	6 (60.0%)	46 (68.7%)	5 (25.0%)
Social	41 (42.3%)	4 (40.0%)	29 (43.3%)	8 (40%)
Conformity	41 (42.3%)	3 (30.0%)	31 (46.3%)	7 (35.0%)
Coping	-	5 (50.0%)	22 (32.8%)	13 (65.0%)
Psychiatric comorbidities				
Anxiety pattern	46 (47.4%)	5 (50.0%)	32 (47.8%)	9 (45.0%)
Antisocial personality disorder	7 (7.2%)	1 (10.0%)	5 (7.5%)	1 (5.0%)
Phobic disorder	3 (3.1%)	1 (10.0%)	1 (1.5%)	1 (5.0%)
Major depression	13 (13.4%)	1 (10.0%)	8 (11.9%)	4 (20.0%)
Panic disorder	5 (5.2%)	1 (10.0%)	4 (6.0%)	-
Somatisation	17 (17.5%)	3 (30.0%)	11 (16.4%)	3 (15.0%)

Mortality

The general mortality from all causes in the study group was 17.5% - 17 women died during hospitalization, 12 of them (17.9%) were between 41 and 69 years old. The complications of the liver disease represented the cause for death in 41% of the total deaths (7 women died from cirrhosis and alcoholic hepatitis and their complications). The mortality due to cardiac disease and its complications was of 17.6% (3 patients out of the 17). Infections represented 23.5% of all the death causes, with 4 of the patients dying because of the infection directly (*Table 4*).

Table 4. Study group general and cause-specific mortality

Mortality	Study group (n=97)	18-40 (n=10)	41-69 (n=67)	?70 (n=20)
General mortality	17 (17.5%)	1 (10%)	12 (17.9%)	4 (20%)
Cause-specific mortality				
Liver failure (LF)	6 (6.2%)	1(10%)	5(7.5%)	-
Cardiac failure	3 (3.1%)	-	2 (3%)	1(5%)
Cancer (and complications)	2 (2.1%)	-	1 (1.5%)	1(5%)
Infections	4 (4.1%)	-	3 (4.5%)	1(5%)
Stroke (and complications)	1 (1%)	-	-	1(5%)
Cirrhosis complications (other than LF)	1 (1%)	-	1 (1.5%)	-

Discussion

Our objective was to determine the prevalence of excessive and heavy alcohol consumption among women admitted in an internal medical department and to identify the spectrum of medical disorders they suffer from. The interest for this kind of research study in our country derives from the fact that, although alcohol consumption among women represents more than a medical issue, obviously being a social problem, there are few studies on it, showing that there has been no high academic interest regarding this topic so far.

The epidemiological data collected within the study show that women who regularly consume alcohol are more susceptible to present medical affections covering the spectrum of different specialities. Women who are heavy drinkers, i.e. they drink 2+ drinks per day or 8+ drinks per week, present a high risk of mortality due to hepatic diseases linked to alcohol and to cardiac and neuro-vascular diseases.

The inclusion of patients in the study group was based on their deliberate response to the question on alcohol consumption and especially on the amount of alcohol beverage per day or per week. This procedure determines the occurrence of certain prevalence connected bias. Firstly, female alcohol consumption is stigmatized in our society, therefore some women do not admit they have this habit; similarly, some of them do not declare the amount of alcohol consumed. Another bias element could be determined also by the fact that some of their families have an attitude of denial or dissimulation about this problem, consequently they might not respond in a frank manner during anamnesis (Geirsson, 2009). Thirdly, the hospital where the study was carried out is a university emergency one, where emergency admission represents the most common cases

source. This could be a cause of a bias regarding incidence of certain related-to-alcohol disorders for two reasons: (1) it is well-known that a part of the disorders related to alcohol are chronic and they do not require admission in an ER, e.g. arterial hypertension, mild alcohol liver disease, alcoholic neuropathy and myopathy, cognitive deterioration; (2) there is a predominance of severe acute diseases related with alcohol, such as acute pancreatitis and alcoholic hepatitis.

Although some of our results regarding morbidity seem to be comparable with similar studies carried out abroad, these should not represent a background for comparison, taking into consideration the study design differences and, on the other hand, the natural disparities regarding cultural specificity of the studied populations (Fuchs, 1995; Stokkeland, 2008). This study could not make reference to, or present data on, an important problem regarding female alcohol consumption, either viz. alcohol drinking during pregnancy. Even if this problem can have serious medical consequences for the mother and the fetus, our study group did not comprise pregnant women and it does not consider the patients' pregnancy medical history.

Despite these biases (Wilke, 1994), the results from the data analysis are of relevance as to certain medical and also social aspects related to excessive and heavy alcohol consumption in adult female. There are numerous clinical implications, covering the sphere of interest of multiple medical specialties; therefore an exhaustive presentation cannot be attempted at. We focus the presentation to what we consider are the most relevant medical consequences of women alcohol consumption as they have emerged from our study.

Clinical implications

Hepatic affections determined by alcohol consumption. The results of the study show that hepatic affections, namely alcoholic hepatic disease with its variations: alcohol hepatitis and cirrhosis appear at women with excessive habitual alcohol consumption. This represents an important mortality and morbidity cause (O'Shea, Dasarathy & McCullough, 2010). The number of consumption years might represent risk factors in the occurrence of the hepatic disease. Mortality due to alcoholic hepatic disease is different in function of age and degree of hepatic damage. Young patients who have a low number of drinking years and a special variable drinking pattern ("binge drinking") have a high risk of death due to an alcoholic hepatitis disease episode accompanied by acute renal hepatic failure (Choi, 2012). Women who are in the menopause years, with alcoholic cirrhosis, have a high risk of mortality if they continue to drink (Jarque-Lopez *et al.*, 2001). Association with mental affections, from anxiety to antisocial behavior, worsens the prognosis of these patients. The absence of family support and the presence of a partner who also consumes alcoholic drinks equally represent important worsening factors in the evolution of patients who suffer from alcoholic cirrhosis (Farris, 2012).

Cardio and neurovascular mortality and morbidity. Of the cardiovascular affections met with these patients, arterial hypertension seems to be the most common one, especially at women in the menopause stage. This could be due to the fact that alcohol may increase their oestrogen level, with consequences upon their general morbidity (Kendler *et al.*, 1992; Sato *et al.*, 2001). Excessive alcohol consumption represents a risk factor for women, especially at premenopausal stage, in having an ischaemic stroke, even in the absence of other known risk factors. Moreover, subarachnoid hemorrhage seems to be even more frequent at younger women who consume 4+ drinks per day (Lu *et al.*, 2008). Coronary ischaemic disease and atrial fibrillation do not seem to be more frequent at these patients, compared to the control group. In fact, the association with the classical risks factors of coronary diseases - diabetes mellitus, smoking, obesity and hypercholesterolemia, makes it difficult to conclude that alcohol might represent an independent risk factor (Stamfer, 1998; Colditz, 1991). Another correlation could be however substantiated: younger women with excessive alcohol consumption have a higher than expected cardiovascular mortality risk, probably caused by the proarrhythmogenic effect of alcohol, which can determine fatal paroxysmal rhythm disorders. Furthermore, it can be caused by the possible subclinical alcohol-related cardiomyopathy (Bradley, 1998).

Neuropsychiatric affections and the risk of injury. The risk factors represented by antisocial behavior and affective disorders - depression and anxiety, noted at these patients, seem to play an important role in the cognitive distortion, as results from the study group findings, as compared to the control group data. Although there is a connection between alcohol consumption and the occurrence of the cognitive deficit, established in previous studies carried out in European countries (Letenneur, 2004; Varvasovszky & McKee, 2000), a statistically significant correlation with the quantity of alcohol drunk per day or per week could not be made in our study, mainly due to the difficulty in establishing it on the basis of the anamnesis. Equally, questions were not raised as to the numerous physical traumas that these patients can experience (Mitchell *et al.*, 2012); such an analysis was actually beyond the scope of this study.

Social and educational implications

The social implications determined by alcohol consumption with women can be analyzed from several perspectives: implications at professional level, at personal (family) and educational levels. Many studies have pointed out to the fact that unemployment and excessive alcohol consumption tend to have mutual influence: thus, heavy drinkers have a higher risk of losing their jobs and becoming unemployed is often conducive to increasing alcohol consumption. Moreover, with women, re-entering the labor market can be more difficult because of the social status and the public image they get as a result of excessive alcohol consumption.

As to the implications on the family and education, two aspects can be emphasized: if the women that are heavy drinkers are mothers, this aspect increases the risk of poor performance at school, absenteeism and school drop out phenomenon among their children. Similarly, alcohol consumption with pregnant women can lead to attention deficit and behavior problems of the children (Klingemann & Gmel, 2001). Equally, excessive alcohol consumption seems to affect their parental abilities, and, therefore, again, the child's school performance. Thus, we can conclude that as regards excessive alcohol consumption with women, it is utterly necessary to initiate a set of prevention and support measures: social and professional reintegration, reconsidering of the woman's public image, intervention for reintegration and family rebalancing, assistance and counseling for the children coming from social risk environments associated with alcohol consumption.

Such support measures can determine possible openings towards an improvement of: (1) primary public policies (prevention programs, social and professional reintegration, counselling and support by means of specialized services); (2) secondary/derived public policies (fighting against poverty, integrated educational programs/services and of prevention ensured in major risk areas). The final objective is represented by an increase of the social life quality, of the professional efficiency and of the family and educational balance.

Conclusions

This study, one of the few implemented in Romania on the prevalence of medical problems associated with excessive consumption of alcohol with women who are admitted in an internal medical care service of an emergency hospital, has brought about data having both medical and social scientific significance. Our study, meant to exhaustively include a broad pathology, from the gastroenterological to the neuropsychiatric one, mainly aimed to carry out a 'group photo' global presentation of the medical problems connected with alcohol consumption at women, without analyzing in detail the pathological connections for each diagnosis in certain cases. Future studies on alcohol consumption at women could investigate the connections between consumption and certain diseases and determine specific independent risk factors with prognosis value linked to alcohol consumption at women.

Last, but certainly not least, this study has valuable social implications, as it attempts to raise the interest of the medical, academic and particularly institutional environments on a disregarded topic that is part of the generically named today concept "Woman's Health". Our study also tried to give a more specific view upon measures required at national level as far as public policies are concerned, both social and educational. Nevertheless, for a better orientation of the public

policies, further research needs to be carried out in order to identify specific action that should be identified so that the presented measures should be implemented.

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