

# Alcoholic Behaviour and Assessment of the Quality of Life of Reproductive Age Women in Eastern Siberia

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**Abstract** – The article analyzes the problem of alcohol behavior of women of reproductive age in Eastern Siberia and assessment of their quality of life. The authors analyze the current research of this problem and make a conclusion about the ambiguity of the solution of the problem of alcohol behavior in women and its connection with the quality of life. In a sample of 1,300 women (mean age 34.22±6.39), 816 of whom consumed alcohol, and 514 of whom consumed no alcohol, the authors conclude that women of reproductive age who consumed alcohol were less satisfied with their lives than women who did not consume alcohol, using the BDI and SF-12 methods and the Mann-Whitney U-criteria and the Pearson Chi-square. In addition, ethnic specificity was found to determine the relationship between alcohol use and life satisfaction and depressive symptoms. Finally, it turned out that depressive symptoms were predominantly related to the use of strong alcohol.

**Keywords** – quality of life, alcoholic behaviour, women of reproductive age

## I. INTRODUCTION

The state of health of the Russian population is characterized by unfavorable trends in medical and demographic processes occurring in modern conditions: low birth rate, high mortality, unsatisfactory health indicators (for example, [1], [2]). In this regard, the problem of alcohol

behavior among women is relevant. Alcohol and its consumption culture can determine both reproductive health disorders and behavior, as well as emotional and social disorders. In some situations (according to K.S. Birditt, C.A. Polenick & T.C. Antonucci, [3]) alcohol consumption with a spouse is a factor that reduces the negative impact on the marital life and improves the quality of life. In some cases (according to Y. Krishnamoorthy et. al., [4]), alcohol/tobacco users had a significantly higher risk of poor quality of life. K.W. Bold, E.E. Epstein & B.S. McCrady, [5] showed how a significant improvement in the quality of life has been observed after alcohol treatment, but this is related to alcohol dependence rather than alcohol consumption in general.

J. Levola et. al. [6] found that people with depression had a lower average quality of life and higher alcohol scores than respondents without depression. But if the two-dimensional correlations showed that the average weekly alcohol consumption, drunkenness rate and AUDIT scores were statistically significantly associated with deterioration in the quality of life in people with depression (including women), among people who were not depressed, abstinence or alcohol consumption was not associated with quality of life.

On the other hand, M. Dişsiz, N. Beji & Ü. Oskay [7] found that women with alcohol dependency had lower WHOQOL-BREF-TR subsizes and lower overall FSFI scores and subsizes, but higher BDI scores than the healthy group. They concluded that alcohol addiction has a negative impact on the quality of life and sexual life of women.

Thus, the problem of alcohol behavior among women and its connection with the quality of life remains controversial.

Objective of the study: to determine to what extent alcohol consumption by women of reproductive age affects their satisfaction with their lives and the level of depressive symptoms.

**II. MATERIALS AND METHODS**

The study involved 1,300 women of reproductive age. The average age was 34.22±6.39. According to the results of the survey, 816 women consumed alcohol, while 514 women did not consume alcohol.

To study the quality of life, we used Beck's Depression Scale and SF-12's Brief Form of Health Assessment, which proved to be effective in our previous studies [8]. Beck Depression Inventory was proposed by A.T. Beck Depression Inventory was proposed by A.T. Beck in 1961; to study depression and includes 21 categories of symptoms and complaints. Each category consists of 4-5 assertions corresponding to specific manifestations/symptoms of depression. These statements are ranked as the specific contribution of the symptom to the overall severity of depression increases.

The SF-12 health assessment form is intended to provide a quick assessment of the quality of life of large groups of subjects. It consists of 12 questions, which form the final indicator of the quality of life related to health.

**III. RESULTS**

Sociodemographic characteristics of women of reproductive age are presented in the table below.

Thus, women who consume alcohol are characterized by the following features: they are predominantly European women living in the city, with higher education, married and with incomes below average.

Characteristics of alcohol behavior, as well as smoking, are presented in the table below.

Thus, the interviewed women who consume alcohol do not smoke in the majority of cases; among alcoholic beverages they prefer low-alcohol beverages (beer and wine). Less than 20 % of women consume strong alcohol.

Let us now turn to the analysis of the extent to which alcohol consumption by women of reproductive age influences the level of satisfaction with their lives and the level of depressive symptoms.

First of all, we found that none of the scales of the questionnaires used correspond to the normal distribution of the Kolmogorov-Smirnov Single-Sample Criterion. Later on, non-parametric criteria were used to analyze the data obtained.

Next, we established descriptive statistics for each of the methods used. It appeared that women who consume alcohol had a relatively lower level of satisfaction with their lives and a relatively higher level of depression.

The Mann-Whitney U-criterion found that only the difference in quality of life assessment was significant ( $Z=-2,181, p<0,03$ ).

**TABLE I. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF WOMEN OF REPRODUCTIVE AGE IN EASTERN SIBERIA**

Scales	Drinking alcohol women (n= 816)
Race	508(62,25)
Caucasoid, n (%)	
Asian, n (%)	231(28,31)
Metis, n (%)	77 (9,44)
Place of residence	
City, n (%)	587 (72,29)
Region, n (%)	225 (27,71)
Participant education	
Postgraduate, n (%)	73 (8,96)
Higher, n (%)	525 (64,42)
Incomplete higher, n (%)	39 (4,79)
Secondary professional, n (%)	140 (17,18)
Initial professional, n (%)	4 (0,49)
Secondary (complete) general education, n (%)	27 (3,31)
Basic general, n (%)	5 (0,61)
Primary general education, n (%)	2 (0,25)
Do not have primary general education, n (%)	0 (0,00)
Can not read, n (%)	
Unknown, n (%)	0 (0,00)
Other, n (%)	
Relationship status	
Single, n (%)	200 (24,54)
Married, n (%)	432 (53,01)
Civil marriage, n (%)	93 (11,41)
Separate accommodation, n (%)	3 (0,37)
Divorced, n (%)	67 (8,22)
Widow, n (%)	14 (1,72)
Prefer not to say, n (%)	6 (0,74)
Your monthly income (category)	
Less than 20 000, n (%)	292 (36,18)
20 000 - 29 999, n (%)	305 (37,79)
30 000 - 39 999, n (%)	136 (16,85)
40 000 - 49 999, n (%)	51 (6,32)
50 000 - 59 999, n (%)	11 (1,36)
60,000 and more (%)	12 (1,49)

**TABLE II. CHARACTERISTICS OF ALCOHOL BEHAVIOR AND SMOKING WOMEN**

Scales	Drinking alcohol women (n= 816)
Type of alcohol	
Beer (4-5°), n (%)	412 (50,43)
Wine (12,5°), n (%)	419 (51,29)
Alcoholic drinks (40°), n (%)	160 (19,58)
Other, n (%)	15 (1,84)

Next, we analyzed the effect of alcohol consumption on life satisfaction and different manifestations of depression in women depending on their ethnicity.

**TABLE III.** DIFFERENCES IN ASSESSING THE QUALITY OF LIFE OF WOMEN WHO DRINK AND DO NOT DRINK ALCOHOL

Scale	General		Consuming alcohol		Non-consuming alcohol	
	Md	Scope	Md	Scope	Md	Scope
SF-12	35	8	34	8	35	7
BDI	6	7	6	7	6	7
Affective-cognitive subscale	3	5	4	5.25	3	5

**TABLE IV.** DIFFERENCES IN ASSESSING THE QUALITY OF LIFE OF WOMEN WHO DRINK ALCOHOL DEPENDING ON ETHNICITY

Scale		SF-12	BDI	Affective-cognitive subscale	Subscale of somatic manifestations
General	Median	35	6	3	2
	Size of the apartment	8	7	5	3
Caucasians	Median	35	6	3	2
	Size of the apartment	7	7	5	3
Asians	Median	35	6	4	2
	Size of the apartment	7	7	5	3
Metis	Median	34	6	3	2
	Size of the apartment	8	7	5	3

We found no significant differences in any of the scales among European women.

On the contrary, differences in life satisfaction ( $Z=-2.4$ ,  $p<0.01$ ) as well as in the scales reflecting the manifestation of depressive symptoms ( $Z=-2.2$ ,  $p<0.03$ ) and depression in general ( $Z=-2$   $p<0.05$ ) among Asian women (Buryats) who consume alcohol and those who do not) are significant.

Finally, mixed ethnicity subjects were also found to have no differences on the scales.

However, no differences in the studied parameters were found between urban and urban women who consume alcohol. On the contrary, in rural areas, women who consume alcohol in general assess their well-being lower than in urban areas ( $Z=-2,282$ ,  $p<0,02$ ).

Finally, we analyzed whether there is a link between the preferred alcoholic beverages (beer, wine, strong alcohol and other options) and the SF-12 and BDI scales. The relationship was found to exist only between the Cognitive Affective Subscale and strong alcohol consumption (Pearson's Chi-square is 57.1 at  $p<0.01$ ).

#### IV. DISCUSSION

First of all, we found that women of reproductive age who drink alcohol are less satisfied with their lives than women who do not drink alcohol. The data obtained are somewhat different from the results of J. Levola et. al. [6], according to which, among people who are not depressed, abstinence or alcohol consumption was not related to quality of life. In our

case, we also found no difference in the level of depression, but differences in the quality of life were evident.

We did not compare the extent to which alcohol use, quality of life, and relationship status of women were related. Accordingly, we can not compare the results with K.S. Birditt, C.A. Polenick & T.C. Antonucci [3]. However, this issue may be the subject of further study.

The data we obtained also revealed ethnic specifics that determine the relationship between alcohol consumption and the level of satisfaction of women and their depressive symptoms. The sample we have taken - Europoids and Asians (mestizoans) - is comparable to those described above only in the part that affects the European ethnic group. The sample taken by Y. Krishnamoorthy et. al. [4], primarily concerns the Indians, and it is not possible to compare the data obtained on it with Asian peculiarities. At the same time, it should be noted that the question of ethnic specificity is not touched upon at all when analyzing the relationship between alcohol consumption and the level of satisfaction with life within the study area.

Finally, it turned out that depressive symptoms were predominantly related to the use of strong alcohol. Most likely, in this case we are talking about alcohol addiction in general - which is related to the results of K.W. Bold, E.E. Epstein & B.S. McCrady [5]. However, in order to make this clear, further research is needed.

#### V. CONCLUSION

Thus, the following conclusions can be drawn.

First, women of reproductive age who drink alcohol are less satisfied with their lives than women who do not drink alcohol.

Second, there is an ethnic specificity that defines the relationship between alcohol use and life satisfaction and depressive symptoms. While European and mestizo women have no such connection, Asian (Buryat) women have more depressive symptoms and are less satisfied with their lives.

Finally, it turned out that depressive symptoms were predominantly related to the use of strong alcohol.

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