THE SIGNIFICANCE OF DEMOGRAPHIC VARIABLES AND ALCOHOL CONSUMPTION IN PREDICTING EMOTIONAL EXPRESSIVITY IN ALCOHOL DEPENDENCE

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Abstract

The study aim: to evaluate the significance of demographic variables and alcohol consumption peculiarities in predicting emotional expressivity of alcohol-dependent patients in Lithuania.

The material and method: 149 alcohol-dependent patients participated in the cross-sectional study. A self-administered questionnaire was used from the Lithuanian version of Five Expressivity Facet Scale (Gross, John, 1998), AUDIT test and demographic questions.

The main results and conclusions: Alcohol-dependent patients, who perceive rehabilitation treatment demonstrate higher expressive confidence, higher positive and negative expressivity and higher impulse intensity than alcohol-dependent patients from the detoxification treatment. Alcohol-dependent patients with higher level of education are more likely to demonstrate higher expressive confidence, higher the positive expressivity and higher impulse intensity. The results reveal that alcohol-dependent females have higher impulse intensity than alcohol-dependent males. Also, the results show that the consumption of champagne/wine in one evening is a significant for higher expressive confidence of alcohol-dependent people. Alcohol-dependent people who have long experience of alcohol consumption demonstrate lower positive expressivity.

Keywords: Emotional expressivity, Alcohol-dependent patients, Demographic variables, Amount of consumed alcohol

Introduction

Following the biopsychosocial perspective, The World Health Organization (WHO) recognizes that frequent and abundant alcohol consumption is related not only to the somatic problems such as

cardiovascular disease or impaired liver function, but also to the increases in the risk of premature death (Anderson, Chisholm & Fuhr, 2009; Nicholson, Bobak, Murphy, Rose & Marmot, 2005). Harmful alcohol consumption or even alcohol dependence can cause many mental problems, including mood or personality disorders, and higher suicide rate (Nicholson, Bobak, Murphy, Rose & Marmot, 2005). Consequently, alcohol-dependent patients cannot function in a society normally, as it results in deterioration of interpersonal relationships, unemployment and social isolation appears. Thus, each country with high rates of alcohol consumption has encountered these problems.

According to Drug, Tobacco and Alcohol Control Department, 66.7% of Lithuanian people consumed alcohol during the last 30 days. In 2013 older than 15 years Lithuanian citizens consumed an average 12.9 liters of pure ethanol. As the result, Lithuania is one of the leading European countries in terms of consumed alcohol quantities (Drug, Tobacco and Alcohol Control Department, 2013). However, Lithuanian statistics reveal more similarities than differences in comparison to other countries. The European Union (EU) is the region with the highest alcohol consumption in the world: in Lithuania like in many Europe countries (e.g. Poland, Luxembourg, Spain, Estonia, and Germany) alcohol is the third leading risk factor for disease and mortality after high blood pressure (Anderson, Møller & Galea, 2012). However, alcohol-attributable mortality is the highest in central-eastern and eastern country group, with standardized death rates (SDRs) of more than 75 per 1000 in Hungary, Romania and the Baltic countries (WHO, 2014). Similar situation is noticed in United States of America, where excessive alcohol consumption is also the third leading cause of death, accounting for 80,000 deaths per year (OECD, 2013). Hence, alcohol consumption is one of the most relevant health problem, even though there is a global strategy how to combat the harmful use of alcohol, through direct (e.g. medical services for alcohol related health problems) and indirect measures (e.g. the dissemination of information on alcohol-related harm) (Anderson, Møller & Galea, 2012).

One of the direct measure and the most important part of global strategy for reducing alcohol consumption is the organization of long-lasting, effective, complex support for alcohol-dependent patients (Rehn, Room & Edwards, 2001). Like in the most countries, Lithuania has a systematic support for alcohol-dependent patients according to which changes in alcohol-related behavior is not so easily achieved. Firstly, alcohol-dependent patients always get a pharmacological detoxification. After that, alcohol-dependent patients have a possibility to choose a different kind of support. There are alcoholic anonymous (AA) meetings, the small rehabilitation communities and one of the most widely applied psychological interventions,

working with different types of dependence, is "Twelve Steps" program. According to this program, alcohol-dependent patients firstly are taught to increase awareness of causes (motives) and consequences of alcohol consumption (Atwell, Abraham & Duka, 2011). By analyzing the experience of alcohol consumption, alcohol-dependent patients have to find out what kind of thinking and aroused emotions in different situations have motivated them to use alcohol in the past (Lyvers, Hasking, Hani, Rhodes, Trew, 2010). Afterwards, alcohol-dependent patients are encouraged to look for alternative ways of thinking, but, most importantly, they are taught to recognize and to express different emotions, especially intensive and negative ones (Atwell, Abraham & Duka, 2011). As the result, the alcohol consumption-related behavior is changed by recognizing the irrational way of thinking and improving the emotional expressivity. So, basically, interventions are designed to increase the emotional expressiveness as well as rational thinking and sobriety (Philippot, Kornreich & Blairy, 2001). Studies have found that emotional expressivity depends on demographic variables like gender, age, duration of alcohol consumption as well as cultural values and norms (Lu & Wang, 2012; Haley, 2009; Philippot, Kornreich & Blairy, 2001). Although the mechanism of alcohol addiction development is broadly analyzed, there still is a lack of information on what interventions and treatment conditions are the most effective to achieve long-lasting changes in behavior, emotional functioning or even personality of alcohol-dependent patients. Taking that into account, the purpose of this study is to analyze which demographic variables, besides alcohol consumption peculiarities, are significant in predicting the Lithuanian alcohol-dependent patients' emotional expressivity.

Literature review

        Previous research shows that people, who demonstrate higher emotional expressivity have a better understanding of each other, higher self-disclosure and better interpersonal communication (Trierweiler, Eid & Lischetzke, 2002). Also, it is found that people with higher emotional expressivity are happier, they are experiencing less guilt and anxiety (Lu, Wang, 2012). As the result, higher emotional expressivity is significantly related to better physical and mental health as well as better social functioning (Leising, Müller & Hahn, 2007; Sloan Marx, 2004). However, there are some studies that clearly indicate how much emotional expressivity declines because of harmful alcohol consumption (Lyvers, Hasking, Hani, Rhodes & Trew, 2010; Cordovil de Sousa Uva, Mikolajczak, Luminet, Timary, Cortesi & Blicquy, 2009). The comprehensive analysis of the emotional expressivity in alcohol-dependent patients plays an important role in order to formulate a broad psychological understanding of alcohol

dependence in general and particularly in Lithuania. This analysis could give some ideas on how to implement interventions for the alcohol-dependent patients.

Emotional expressivity

J.J. Gross and O.P. John (1998), ones of the first authors who pioneered in exploring the phenomena of emotional expressivity, describe it as an expression of rising emotion through behavior (e.g. crying, laughing, frown), which varies individuality (Gross & John, 1998). Authors (Gross & John, 1998) suggested hierarchical model of emotional expressivity. According to this model, emotional expressivity consists of five different individual behavioral aspects (Trierweiler, Eid & Lischetzke, 2002; Gross & John, 1998). *Expressive confidence* defines an emotional reactivity in social situations when people express different emotions in flexible and adequate way (Gross & John, 1998, p.). *Positive expressivity* means an ability to express positive emotions like joy, satisfaction or pleasure (Gross & John, 1998). On the contrary, *negative expressivity* defines a behavior, by which negative emotions are expressed spontaneously and intensively, regardless of the social context (Trierweiler, Eid & Lischetzke, 2002; Gross & John, 1998). *The impulse intensity* – a fourth aspect of emotional expressivity could be defined as strength of emotions, which causes automatic physiological and behavioral changes that person cannot control or stop (Gross & John, 1998). Finally, *masking* of emotions in social situations appears when it is believed that expression of emotions in public is unacceptable (Gross & John, 1998). Which aspect from five emotional expressivity domains will appear in stressful situation depends on response tendencies (Gross & John, 1997). These tendencies are caused by "emotion program, which is triggered by external or internal input" (Gross & John, 1997, p.436). So, an emotionally expressive behavior is a response to external or internal triggers.

Emotional expressivity of alcohol-dependent patients

It is believed that usually people consume alcohol because of expectations to suppress negative emotions and to enhance positive ones (Lyvers, Hasking, Hani, Rhodes & Trew, 2010; Philippot, Kornreich & Blairy, 2001). However, research shows that the ability to perceive, interpret, regulate and express emotions reduces when alcohol consumption rates and periods increase (Cordovil de Sousa Uva, Mikolajczak, Luminet, Timary, Cortesi & Blicquy, 2009). It is found that alcohol-dependent patients are incapable of identifying and differentiating their emotions as well as controlling them without any alcohol intake (Kun & Demetrovics, 2010). Also, alcohol-dependent patients demonstrate stronger emotional reaction in

comparison to alcohol non-dependent people (Verning & Orsillo, 2009). Therefore, according to hierarchical model of emotional expressivity, previous research found that alcohol-dependent patients have lower expressive confidence, lower positive expressivity, but higher negative expressivity, higher impulse intensity and higher masking in comparison to alcohol-non-dependent people (Philippot, Kornreich & Blairy, 2001; Kashubeck & Christensen, 1992).

Importance of demographic variables and alcohol consumption in predicting emotional expressivity in alcohol dependence

The relationship between demographic variables and emotional expressivity is widely analyzed in general population (Akın, Satıcı, Kayiş, 2012; Lü, Wang, 2012; Schryer, Ross, Jacques, Levine, Fernandes, 2012; Parkins, 2012; Haley, 2009; Trierweiler, Eid, Lischetzke, 2002; Gross, John, 1998). Research shows that emotional expressivity in general is quite similar in group of alcohol-dependent patients. It is found that females (Lü & Wang, 2012; Haley, 2009; Naghavi & Redzuan, 2011) and younger people (Phillips, Henry, Hosie & Milne, 2006), who abuse alcohol, show higher positive expressivity, higher expressive confidence as well as higher impulse intensity. On the contrary, males (Haley, 2009) and older people (Phillips, Henry, Hosie & Milne, 2006) tend to have higher negative expressivity and higher masking. It is considered that older people, especially males, learn emotion control strategies through the experience, thereof emotionally expressive behavior is limited (Phillips, Henry, Hosie & Milne, 2006). Also, previous research found that males and females may differ in their ability to express emotions (Mallinckrodt, King, & Coble, 1998). Several self-report studies show that females are more emotional and feel more comfortable with expressing emotions than males (Durik, Hyde et. al. 2006; Hall & Matsumoto, 2004). Also females tend to have emotions of greater intensity than males do (Grossman & Wood, 1993). However, extensive evidence from meta-analyses of research on gender differences shows more gender similarities than differences (Hyde, 2005; Jaffee & Hyde, 2000; Eagly, Makhijani & Klonsky, 1992). Findings highlight the assumption that the stereotypical expectations that individuals have regarding such gender differences is even stronger than observed differences in emotional expressivity between males and females (Hess, Adams & Kleck, 2004). These expectations are socialized early (around 5 years old) and further on they are enhanced through gained experience (Hyde, 2005). These gender differences based on stereotypical expectations appear to be situation-specific (Else-Quest, Hyde, Goldsmith & Hulle, 2006). So, the stereotypical view of male's and female's emotional dispositions translate into a bias of perception of their emotions (Hess, Adams & Kleck, 2004) as well as the

stereotypical expectations regarding appropriate displays of emotion in males and females.

There is a lack of study where the relationship between emotional expressivity and level of education is clearly explained. However, it is thought that cognitive abilities, typically measured by IQ tests, correlate to the perception, understanding, and regulation of emotions (Yabarra, Kross & Sanchez-burks, 2014). Higher level of education is significantly related to better ability to grasp, understand, and react effectively to emotional signals sent by others and by oneself as well as to better skills such as empathy, problem-solving, optimism, and self-awareness (Kiss, Kotsis & Kun, 2014). So, an assumption that alcohol-dependent patients with lower level of education have higher negative expression and higher impulse intensity, but lower masking, lower positive expressivity and lower level of expressive confidence is formulated. On the contrary, it is hypothesized alcohol-dependent patients with higher level of education demonstrate higher masking, higher expressive confidence and higher positive expressivity, however, lower negative expressivity and lower impulse intensity.

Previously presented tendencies are usually explained by cognitive changes (e.g. impaired short-term memory). It is thought that impaired cognitive processes appear as a result of frequent and prolonged alcohol consumption. Therefore, an assumption could be formulated that the longer alcohol is consumed, the higher masking and impulse intensity, but lower positive and negative expressivity and lower expressive confidence appear (Cordovil de Sousa Uva, Mikolajczak, Luminet, Timary, Cortesi & Blicquy, 2009).

Additionally, it is established that different treatment conditions (only detoxification using medication or rehabilitation treatment using medication and psychosocial interventions) of alcohol dependency play a significant role in emotional expressivity. Previous researches (Raistrick, Heather & Godfrey, 2006; Philippot, Kornreich, Blairy, 2001) indicate that alcohol-dependent patients tend to have higher positive expressivity and higher expressive confidence when they receive complex treatment in rehabilitation program. This is usually because a twelve-step rehabilitation program includes individual and group meetings, AA (Anonymous Alcoholics) meetings where alcohol-dependent patients are taught to identify and to name different emotions (Raistrick, Heather & Godfrey, 2006). Later, alcohol-dependent patients learn different strategies how to control and express emotions in stressful situations in order to refrain from alcohol consumption (Raistrick, Heather & Godfrey, 2006).

Authors note that there is a bi-directional relationship between emotional expressivity and amount of alcohol consumption (Brar & Moneta, 2009; Witkiewitz & Villarroel, 2009). Larger amount of alcohol

consumption is related to higher negative expressivity, higher impulse intensity and higher masking, as well as lower positive expressivity and lower expressive confidence (Brar & Moneta, 2009; Witkiewitz & Villarroel, 2009; Buckner et al. 2006). It is noted that alcohol-dependent patients usually tend to behave impulsively while expressing negative emotions (Magid, MacLean & Colder, 2007). The impulsive alcohol-dependent patients are incapable of finding an adequate way to express emotions, so they usually consume alcohol in order to cope with negative emotions and to enhance positive ones (Lyvers, Hasking, Hani, Rhodes & Trew, 2010; Cooper, Frone, Russell & Mundar, 1995).

According to hierarchical model of emotional expressivity, there are five ways how emotions could be expressed. External or internal triggers cause an emotionally behavioral reaction. However, the reaction will depend on such factor as demographic variables (Lü & Wang, 2012; Naghavi & Redzuan, 2011; Brar & Moneta, 2009; Haley, 2009; Witkiewitz & Villarroel, 2009; Phillips, Henry, Hosie & Milne, 2006) and amount and frequency of alcohol consumption (Cordovil de Sousa Uva, Mikolajczak, Luminet, Timary, Cortesi & Blicquy, 2009). Hence, the aim of this study is to evaluate the significance of demographic variables and alcohol consumption peculiarities in predicting emotional expressivity of alcohol-dependent patients in Lithuania. The following assumptions will be testing in this study:

1. Higher negative expressivity is predicted by being a male, younger age, lower level of education, shorter period of alcohol consumption, medical treatment only and higher amount of alcohol consumption.
2. Higher masking is predicted by being a male, older age, higher level of education, longer period of alcohol consumption, medical treatment only and higher amount of alcohol consumption.
3. Higher positive expressivity and higher impulse intensity is predicted by being a female, younger age, lower level of education, longer period of alcohol consumption, treatment in rehabilitation program and lower amount of alcohol consumption.
4. Higher expressive confidence is predicted by being a female, younger age, higher level of education, longer period of alcohol consumption, treatment in rehabilitation program and lower amount of alcohol consumption.

Methodology
   Participants: A cross-sectional survey of alcohol-dependent patients was conducted in 2013 between Februarys to April at Kaunas center for addictive disorders. Kaunas center for addictive disorders is one of five this type of centers of this kind, where all addictions are treated using medications and applying psychosocial interventions (individual and groups

meetings in the twelve-step rehabilitation program). So, the sample of this study mostly represents Kaunas center for addictive disorders patient cohort. Also, it may represent one fifth of Lithuanian population, with alcohol dependence problems. All patients in the Kaunas center for addictive disorders were invited to participate in this study if they have not consumed any alcohol for at least 5 days. The overall sample size was 149 alcohol-dependent patients (101 males and 48 females). The characteristics of study population are presented in Table 1.

Table 1 Characteristics of study population

Characteristic	Value	
Gender	Alcohol-dependent males	Alcohol-dependent females
	101 (67.8%)	48 (32.2%)
Age, mean, years, (min-max)	42.5 (22-70)	44.7 (27-63)
Education (N, %)		
Not finished secondary	10 (9.9%)	4 (8.3%)
Secondary	33 (32.7%)	13 (27.1%)
Specialized secondary	32 (31.7%)	21 (43.8%)
Higher education	26 (25.7%)	10 (20.8%)
Treatment condition (N, %)		
Detoxification	54 (53.5%)	18 (37.5%)
Rehabilitation program (12-steps)	47 (46.5%)	30 (62.5%)
The average of alcohol consumption (in years)	14.6	14.0
AUDIT test score mean (min-max)	25.96 (15-35)	23.44 (9-34)

The majority of the participants were alcohol-dependent males, averagely 42 years old, who have secondary or specialized secondary education and the duration of an average almost about 15 years of alcohol consumption. Also, almost a half of these alcohol-dependent males were from detoxification treatment, the other half – from rehabilitation treatment program. According to AUDIT test scores, all men have an alcohol dependency.

Methods

Emotional expressivity was assessed by using the Lithuanian version of Five Expressivity Facet Scale (Gross & John, 1998). The version was adapted following the standard translation and back translation procedure. 62-item inventory evaluated the five aspects of emotional expressivity: expressive confidence, positive expressivity, negative expressivity, masking and impulse intensity. The internal validity of five scales was sufficient (Cronbach α ranged from 0.61 to 0.85). Higher scale scores indicated higher expression of different emotional expressivity aspects.

The Lithuanian version of AUDIT (*The alcohol use disorders identification test*) (Saunders, Aasland, Babor, de la Fuente & Grant, 1993) was used in order to evaluate alcohol addiction. 10-item test evaluated hazardous and harmful alcohol consumption, as well as alcohol dependence. Respondents, who scored 13-15 and more points, were considered as alcohol-dependent patients. Less than 8 points meant that alcohol consumption was not problematic. The internal validity of this scale was sufficient (Cronbach α - 0.65).

Additionally, *demographic data* was obtained and it included subject's gender, age, level of education, duration of alcohol consumption and treatment conditions (medical detoxification and the twelve-step rehabilitation program). Participants were asked about the amount of different types of alcohol (vodka, champagne/wine, beer and other strong alcohol drinks) they consumed in one evening.

Statistical analysis

Statistical analysis was performed by using SPSS 17.0 statistical package. The Kolmogorov-Smirnov test was used for the assessment of normal distribution in quantitative data. Descriptive statistics was used to present study population characteristics. In order to investigate the significance of demographic variables in predicting emotional expressivity five separate multinomial regression analysis with *enter* method were conducted. Each aspect of emotional expressivity (expressive confidence = Model 1; positive expressivity=Model 2; negative expressivity=Model 3; impulse intensity=Model 4; masking =Model 5) was used as the dependent variable. Demographic variables, such as gender (male=1; female=2), age (years), level of education (primary=1, secondary=2, higher=3, university=4), average duration of alcohol consumption (in years) and type of treatment (detoxification=1; rehabilitation=2) were used as independent variables in regression models. Quantities of different alcohol type were used as independent variables as well. Level of statistical significance: $p < 0.05$.

Analysis and Results

The results of multinomial regression analyses reveal that four of five regression models are statistically significant: F=4.026, p=0.0001 for 'expressive confidence' (Model 1); F=6.023, p=0.0001 for 'positive expression' (Model 2); F=3.064, p=0.002 for 'negative expression' (Model 3), F=5.684, p=0.0001 for 'impulse intensity' (Model 4). The demographic variables and amount of different types of alcohol are not significant factors in predicting 'masking' (F=0.237, p=0.946). Significant results of all regression analyses are presented in Table 2.

Table 2 The aspects of emotional expressivity in alcohol-dependent patients and its' relation to demographic variables

Emotional expressivity	Predictive factors	Std. Beta	p
Model 1. Prognosis of expressive confidence R^2=20.7%	Higher education	0.297	*0.010*
	Treatment condition (rehabilitation program)	0.210	*0.0001*
	Champagne/wine consumption	0.175	*0.025*
Model 2. Prognosis of positive expressivity R^2=28.1%	Higher education	0.234	*0.003*
	Average duration of alcohol consumption	-0.169	*0.053*
	Treatment condition (rehabilitation program)	0.349	*0.0001*
Model 3. Prognosis of negative expressivity R^2=16.6%	Treatment condition (rehabilitation program)	0.378	*0.0001*
Model 4. Prognosis of emotional impulse intensity R^2=26.9%	Gender (females)	0.287	*0.001*
	Higher education	0.278	*0.001*
	Treatment condition (rehabilitation program)	0.154	*0.047*

Significance level 0.05

The results of regression analysis show that alcohol-dependent patients, who receive rehabilitation treatment have higher expressive confidence, higher positive and negative expressivity and higher impulse intensity in comparison to alcohol-dependent patients, who receive detoxification treatment. Additionally, alcohol-dependent females, but not alcohol-dependent males, have higher impulse intensity. It is found that higher level of education is a significant demographic variable in predicting higher expressive confidence, higher positive expressivity and higher impulse intensity. The results reveal that higher amount of champagne/wine consumption in one evening is a significant factor in predicting higher expressive confidence. However, other types of alcohol are not significant in predicting emotional expressivity in alcohol-dependent patients. Also, Model 2 reveal that lower positive expressivity of alcohol-dependent patients is predicted by long-term alcohol consumption.

Discussion

The aim of this study was to evaluate the significance of demographic variables and alcohol consumption peculiarities in predicting emotional expressivity of alcohol-dependent patients in Lithuania. The current results does not confirm expected assumption that gender (Lu & Wang, 2012; Haley, 2009), age (Phillips, Henry, Hosius & Milne, 2006), level of education (Kiss, Kotsis & Kun, 2014), duration of alcohol consumption (Cordovil, Mikolajczak, Luminet, Timaru, Cortesi & Blicquy, 2009), treatment conditions (Raistrick, Heather & Godfrey, 2006) and amounts of alcohol consumption are the significant variables in predicting

the alcohol-dependent patients' masking of emotions. On one hand, these unexpected results appear because the majority of participants were alcohol-dependent males, whose defensiveness (DiClemente, Bellino, Neavins, 1999) possibly did not allow to identify how masking of emotions are inherent in this sample. On the other hand, the majority of participants in this study were 42-47 years old, suggesting that these alcohol-dependent patients do not learn an emotional masking strategy, which is usually apparent in older age (Phillips, Henry, Hosius & Milne, 2006).

Also, it is found that those alcohol-dependent patients, who are in a twelve-step rehabilitation program, demonstrate higher positive and negative expressivity, higher expressive confidence and higher impulse intensity. These findings complement previous research (Raistrick, Heather & Godfrey, 2006; McGovern & Carroll, 2003) that alcohol-dependent patients become more aware of emotional explication while working individually and in groups interventions. Psychosocial interventions applied in a twelve-step program help to identify emotions and express them in adequate, socially acceptable ways (Raistrick, Heather & Godfrey, 2006). Thus, new coping and communication skills are taught (McGovern & Carroll, 2003).

Moreover, this study reveals that higher level of education is related to higher expressive confidence, higher positive expressivity and higher impulse intensity. So an assumption could be made that highly educated people have higher emotional intelligence even though they are dependent on alcohol consumption (Yabarra, Kross & Sanchez-Burks, 2014). As the result, highly educated alcohol-dependent patients have better recognition of emotion and better control strategy of emotional expression and they often are able to operate these skills consciously (Yabarra, Kross & Sanchez-Burks, 2014). Therefore, alcohol-dependent patients who have higher educational level have a set of skills, which they tend to use in order to grasp, understand and react effectively to emotional signals sent by others and by themselves (Kiss, Kotsis & Kun, 2014).

As in previous researches (Durik, Hyde et. al. 2006; Hall & Matsumoto, 2004; Grossman & Wood, 1993), the results show that alcohol-dependent females have higher impulse intensity in comparison to alcohol-dependent males. When alcohol dependency occurs, females have higher negative affect than males (Nolen-Hoeksema, 2004). Therefore, alcohol-dependent females become more irritable and sensitive, consequently they react stronger to emotional stimuli and they are not able to control their emotional and behavioral reactions (Verning & Orsillo, 2009). Alcohol-dependent females usually behave and react in an impulsive way regardless of social context (Phillips, Henry, Hosie & Milne, 2006).

Contrarily to previous research (Brar & Moneta, 2009), only the amount of champagne/wine consumption is significant in predicting

expressive confidence: larger amount of consumed champagne/wine is related to higher expressive confidence. These results confirm an assumption that there is a dominant motive in Lithuania to consume "light" alcohol in order to enhance positive emotions and behave more freely in social situations (Lyvers, Hasking, Hani, Rhodes & Trew, 2010). So, this means that part of alcohol-dependent patients are incapable in expressing themselves without alcohol intake, thus they tend to consume alcohol in order to enhance self-confidence (Németh, Farkas, Futaki & Mervó et al., 2011).

Finally, this study confirms previously established tendency that lower positive expressivity of alcohol-dependent patients is predicted by long-lasting alcohol consumption (Cordovil de Sousa Uva, Mikolajczak, Luminet, Timary, Cortesi & Blicquy, 2009). Long-lasting and frequent alcohol consumption causes physical and, especially, mental health impairment (Kun, Demetrovics, 2010). Because of abundant and frequent alcohol consumption over the period of many years cognitive changes appear as an indicator of health problems. Consequently, an ability to perceive, identify, express and control oneself's and others' emotions decreases (Cordovil de Sousa Uva, Mikolajczak, Luminet, Timary, Cortesi & Blicquy, 2009). Therefore alcohol-dependent patients, who have long experience of alcohol consumption, are characterized by affective labiality and dimness (Simons, Carey & Wills 2006).

This study has certain strengths as well as some limitations. First of all, it should be noted that quantitative research of alcohol-dependent patients including representatives of both genders are quite scarce. Thus, this study of both alcohol-dependent female and male, who represent two kinds of typical dependence treatment conditions, can give us more information about psychological features of this disease. Still in order to get more credible information a larger sample representing more types of alcohol addiction treatment, including measures for social acceptability control (e.g., lie scale) should be included. Also, in order to apply obtained tendencies to entire alcohol-dependent population in Lithuania, it would be valuable to replicate this study in other four centers for addiction disorders.

Moreover, even though some demographical features of emotional expressivity in a sample of alcohol-dependent patients is found, but not all psychological (e.g. personality traits), social (e.g. workload) and demographic characteristics (e.g. marital status) were evaluated in this study that might be a significant factors for emotional expressivity. It would be useful to replicate this study including more variables which are important both for understanding of emotional expressivity and for improvement of psychosocial interventions for alcohol-dependent patients.

Conclusion

1. Alcohol-dependent patients with higher level of education, who perceive rehabilitation treatment, are more likely to demonstrate higher expressive confidence, higher positive expressivity as well as higher impulse intensity. They also tend to have higher negative expression.
2. Alcohol-dependent patients' emotional masking is neither predicted by demographic variables nor by the amount of alcohol consumption.
3. Alcohol-dependent females but not alcohol-dependent males are more likely to express emotions impulsively, because they demonstrate higher impulse intensity.
4. Only amount of champagne or wine consumption in one evening is significantly enhancing expressive confidence of alcohol-dependent patients. Consumed vodka, beer or other strong alcohol (e.g. whiskey) are not related to changes in expressive confidence.
5. Alcohol-dependent patients, who have long-lasting alcohol consumption, have lower positive expression.

Acknowledgments

References:

Anderson, P., Møller, L. & Galea, G. (2012). *Alcohol in the European Union. Consumption, harm and policy approaches.* World Health Organization, Copenhagen, Denmark.

Anderson, P., Chisholm, D. & Fuhr, D.C. (2009). Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *Alcohol and Global Health*, *373*, 2234–2246.

Atwell, K., Abraham, C. & Duka, T. A. (2011). Parsimonious integrative model of key psychological correlates of UK university student's alcohol consumption. *Alcohol & Alcoholism*, *46*, 253–260.

Brar, A. & Moneta, G. B. (2009). Negative emotions and alcohol dependence symptoms in British Indian and White college students. *Addictive Behavior*, *34*,292-296.

Cooper, M.L., Frone, M.R., Russell, M. & Mundar, P. (1995). Drinking to regulate positive and negative emotions: a motivational model of alcohol use. *Journal of Personality and Social Psychology*, *69*, 990-1005.

Cordovil de Sousa Uva, M., Mikolajczak, M., Luminet, O., Timary, P., Cortesi, M. &Blicquy, P.R. (2009). *Moderating effect of emotional intelligence on the role of negative affect in the motivation to drink in alcohol-dependent subjects undergoing protracted withdrawal*. Available from URL:
http://www.uclouvain.be/cps/ucl/doc/adsr/documents/cordovil_et_al._2009_PID.pdf

DiClemente, C. C., Bellino, L. E. & Neavins, T. M. (1999). Motivation for change and alcoholism treatment. *Alcohol Research and Health*, *23*, 86-92.

Duric, M. A., Hyde, J.S., Marks, C.A., Roy, L.A., Anaya, D., Schultz, G. (2006). Ethnicity and gender stereotypes of emotion. *Sex Roles*, *54*, 429–445.

Eagly, A. H., Makhijani, M. G., & Klonsky, B. G. (1992). Gender and the evaluation of leaders: A meta-analysis. *Psychological Bulletin*, *111*, 3–22.

Else-Quest, N. M., Hyde, J. S., Goldsmith, H. H., & Van Hulle, C. A. (2006). Gender differences in temperament: A meta-analysis. *Psychological Bulletin*, *132*, 33-72.

Gross, J.J. & John, O.P. (1998). Mapping the domain of expressivity: multimethod evidence for a hierarchical model. *Journal of Personality and Social Psychology*, *74*, 170-191.

Gross, J.J., Carstensen, L.L., Pasupathi, M., Tsai, J., Skorpen, C.G. & Hsu, A.Y.C. (1997). Emotion and aging" experience, expression and control. *Psychology & Aging*, *12*, 4, 590-599.

Grossman, M., & Wood, W. (1993). Sex differences in intensity of emotional experience: A social role interpretation. *Journal of Personality and Social Psychology*, *65*, 1010–1022.

Haley, J.T. (2009). *Stuttering, emotional expression, and masculinity: fighting out words, fighting back tears*. Dissertations theses, University of Iowa.

Hall, A.J. & Matsumoto, D. (2004). Gender differences in judgments of multiple emotions from facial expressions. *American Psychological Association*, *4*, 201–206.

Hess, U., Adams, R.B. & Kleck, E.R. (2004). Facial appearance, gender, and emotion expression. *American Psychological Association*, *4*, 378–388.

Hyde, J.S. (2005). The Gender similarities hypothesis. *American Psychological Association*, *60*, 581–592.

Hess, U., Blairy, S., & Kleck, R. E. (1997). The intensity of emotional facial expressions and decoding accuracy. *Journal of Nonverbal Behavior*, *21*, 241–257.

Jaffee, S., & Hyde, J. S. (2000). Gender differences in moral orientation: A meta-analysis. *Psychological Bulletin*, *126*, 703–726.

Kashubeck, S. & Christensen, S. A., (1992). Differences in distress among adult children of alcoholics. *Journal of Counseling Psychology*, *29*, 356-362.

Kiss, M., Kotsis, A. & Kun, A. I. (2014). The relationship between intelligence, emotional intelligence, personality styles and academic success. *Business, Education & Accreditation*, *6*, 23-34.

Kun, B. & Demetrovics, Z. (2010). Emotional intelligence and addictions: a systematic review. *Substance & misuse*, *45*, 1131–1160.

Leising, D., Grande, T. & Faber, R. (2010). A longitudinal study of emotional experience, expressivity, and psychopathology in psychotherapy inpatients and psychologically healthy persons. *Journal of Clinical Psychology*, *66*, 1027–1043.

Lithuania Drug, Tobacco and Alcohol Control Department, 2013 statistics. Available from URL: http://www.ntakd.lt/en/

Lu, W. & Wang, Z. (2012). Emotional expressivity, emotional regulation, and mood in college students: a cross-ethnic study. *Social Behavior & Personality*, *40*, 319-330.

Lyvers, M., Hasking, P., Hani, R., Rhodes, M. & Trew, E. (2010). Drinking motives, drinking restraint and drinking behavior among young adults. *Addictive Behaviors*, *35*, 116-122.

Magid, V., MacLean, M.G. & Colder, C.R. (2007). Differentiating between sensation seeking and impulsivity through their mediated relations with alcohol use and problems. *Addictive Behavior*, *32*, 2046-2061.

McGovern, M.P. & Carroll, K. M. (2003). Evidence-based practices for substance use disorders. *Psychiatric Clinic of North America*, *26*, 991–1010.

Naghavi, F. & Redzuan, M. (2011). The relationship between gender and emotional intelligence. *World Applied Sciences Journal*, *15*, 555-561.

Nicholson, A., Bobak, M., Murphy, M. Rose, R. & Marmot, M. (2005). Alcohol consumption and increased mortality in Russian men and women: a cohort study based on mortality of relatives. *Bulletin of World Health Organization*, *83*, 812-819.

Németh, Z., Farkas, J., Futaki, L. & Mervó, B. et.al. (2011). Drinking motives among Spanish and Hungarian young adults: a cross-national study. *Alcohol & Alcoholism*, *46*, 261–269.

Nolen-Hoeksema, S. (2004). Gender differences in risk factors and consequences for alcohol use and problems. *Clinical Psychology Review*, *24*, 981–1010.

OECD (2013), *Health at a Glance 2013*. OECD Indicators, OECD Publishing.

Parkins, R. (2012). Gender and prosodic features in emotional expression. *Griffith Working Papers in Pragmatics and Intercultural Communication*, *5*, 46-54.

Philippot, P., Kornreich, C. & Blairy, S. (2001). *Nonverbal deficits and interpersonal regulation in alcoholics. Nonverbal behavior in clinical context*. New York, Oxford University Press, 289-327.

Phillips, L.H., Henry, J.D., Hosie, J.A., Milne, A.B. (2006). Age, anger regulation and well-being. *Aging & Mental Health*, *10*, 250–256.

Raistrick, D., Heather, N. & Godfrey, C. (2006). *Review of the effectiveness of treatment for alcohol problems*. The National treatment agency for substance misuse, 1-209.

Rehn, N., Room, R. & Edwards, G. (2001). *Alcohol in the European Region – consumption, harm and policies*. World Health Organization Regional Office for Europe. Copenhagen, Denmark.

Saunders, J.B., Aasland, O.G., Babor, T.F., de la Fuente, J.R. & Grant, M. (1993).   Development of the Alcohol Use Disorders Screening Test (AUDIT). WHO collaborative project on early detection of persons with harmful alcohol consumption. *Addiction*, *88*, 791-804.

Schryer, E., Ross, M., Jacques, St. P., Levine B. & Fernandes, M. (2012): Emotional expressivity in older and younger adults' descriptions of personal memories, experimental aging research. *An International Journal Devoted to the Scientific Study of the Aging Process*, *38*, 345-369.

Simons, S.J., Carey, B. K. & Wills, A.T. (2006). Alcohol abuse and dependence symptoms: a multidimensional model of common and specific etiology. *Psychology of Addictive Behaviors*, *23*, 415-427.

Sloan, D.M. & Marx, B.P. (2004). Taking pen to hand: Evaluating theories underlying the written emotional disclosure paradigm. *Clinical Psychology, Science & Practice*, *11*, 121–137.

Trierweiler, L.I., Eid, M. & Lischetzke, T. (2002). The structure of emotional expressivity: each emotion counts. *Journal of Personality and Social Psychology*, *82*, 1023–1040.

Verning, P.M. & Orsillo, S.M. (2009). Psychophysiological and self-reported emotional responding in alcohol-dependent college students: the impact of brief acceptance/mindfulness instruction. *Cognitive Behavior Therapy*, *38*, 174–183.

Witkiewitz, K., & Villarroel, N. (2009). Dynamic association between negative affect and alcohol lapses following alcohol treatment. *Journal of Consulting & Clinical Psychology*, *77*, 633-644.

World Health Organizations (WHO). (2014). *Global status report on alcohol and health*. Geneva, Switzerland.

Yabarra, O., Kross, E. & Sanchez-Burks, J. (2014). The "big idea" that is yet to be: toward a more motivated, contextual, and dynamic model of emotional intelligence. *The Academy of Management Perspectives*, *28*, 93–107.