Alcohol consumption as a maladaptive coping strategy to face low life satisfaction

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Abstract

Drinking alcohol is a risk behaviour for individual health. Many studies have investigated the psychological factors influencing alcohol consumption among adolescent and university students, fewer investigated these variables on adult samples. The literature investigated the relation between life satisfaction and alcohol consumption. The results were not consistent. This study aimed to investigate whether drinking motives could mediate the relationship between life satisfaction and alcohol consumption, distinguishing between the general alcohol consumption and episodes of binge drinking. Data were collected by means of a self-report questionnaire in a sample of 285 adults (mean age: 34.4 years). The relations were examined empirically by means of a structural equations model. The results showed the role of drinking motives in fully mediating the relation between life satisfaction and the indicators of alcohol consumption. The coping drinking motive related to general alcohol consumption whereas the enhancement motive to increased binge drinking. Interventions should focus on the coping function of alcohol consumption, helping individuals to develop alternative coping strategies for managing negative moods resulting from unsatisfactory life conditions.

Keywords: Life satisfaction; Drinking motives; Alcohol consumption; Binge drinking; Structural equations modeling.

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Introduction

Alcohol misuse is a high-risk behaviour for health and has been associated with several physical, psychological, and social problems (Anderson & Baumberg, 2006; Kuntsche, Rehm & Gmel, 2004). According to the most recent national survey, in Italy, 71.9% of the population between 18 and 64 years old drink alcohol at least once a year, while 19.3% drink regularly, i.e every day. Moreover, 9.7% of the Italians interviewed reported at least one episode of binge drinking in the last year (ISTAT, 2018). A variety of variables, both individual and social, influence the consumption of alcohol (Room & Mäkelä, 2000; Tartaglia, Fedi, & Miglietta, 2016). Drinking motives are considered the most proximal antecedents of alcohol consumption (Mezquita, Stewart, Ibáñez, Ruipérez, Villa, Moya et al., 2011; Tartaglia, 2014). Drinking motives originate from the motivational model of alcohol use (Cox & Klinger, 1988), which is one of the main theoretical framework for investigating and preventing alcohol consumption. The motivations to drink can be classified according to the type of reinforcement desired (positive or negative) and the source of reinforcement (internal or external). Individuals drink to obtain positive outcomes or to avoid negative consequences and they are motivated by internal or external rewards. Crossing the type and the source of the reinforcement results in four different drinking motives. The first one is the enhancement motive (internally generated with positive reinforcement): drinking to enhance positive experiences or emotions. The second is the social motive (externally generated with positive reinforcement): drinking to obtain positive social rewards. The third is the coping motive (internally generated with negative reinforcement): drinking to cope with negative affect. The last one is conformity motive (externally generated with negative reinforcement): drinking to avoid social rejection. Each motive appears to be differentially related to style of consumption and alcohol-related problems (Kuntsche, Knibbe, Gmel & Engels, 2005; Mezquita et al., 2011). Enhancement motive is related to heavy drinking among both adolescents and adults (Cooper,

Russell, Skinner & Windle, 1992; Labouvie & Bates, 2002), however it does not predict always alcohol-related problems (Cooper et al., 1992; Stewart & Chambers, 2000). Social motive is associated with a moderate and non-problematic alcohol use (Kuntsche et al., 2005; Simons, Correia & Carey, 2000). Coping motive has been linked to alcohol abuse and alcohol-related problems in young and adult drinkers (Cooper et al., 1992; Labouvie & Bates, 2002). Conformity motive has been associated with a moderate drinking in specific social contexts (Cooper, 1994; Graziano, Bina, Giannotta & Ciairano, 2012). The relationship between conformity motive and alcohol consumption has been studied mainly between adolescents, because during this developmental period the desire to fit in among peers considerably increases, and drinking to fit into a peer group is a common event (Cooper, 1994). On the contrary, when investigating alcohol consumption in adult population, generally conformity motive is not considered (Cooper, Frone, Russell & Mudar, 1995; Gilson, Bryant, Bei, Komiti, Jackson & Judd, 2013). Crutzen, Kuntsche & Schelleman-Offermans (2013) included conformity motive in their study and they found that this motive had no predictive value regarding consumption. On the ground of this research literature we decided not to use conformity motive in our study.

Alcohol and life satisfaction

Positive well-being is associated with several healthy behaviours (Grant, Wardle & Steptoe, 2009). Life satisfaction is the cognitive component of subjective well-being (Pavot & Diener, 1993). Regarding the relationship between life satisfaction and alcohol use, scholars have found contradictory results. Some authors found that a low life satisfaction was related to alcohol abuse (Diulio, Cero, Witte & Correia, 2014), others did not find any relationship between the two variables (Grant et al., 2009). Moreover, some scholars found different non-linear relationships between alcohol consumption and life satisfaction. Levy and colleagues (Levy, Bell & Lin, 1980) reported a U-shaped relationship: participants with low and high alcohol consumption reported higher satisfaction than moderate drinkers. Authors' interpretation of this result is that the levels of

satisfaction reported by abusers was probably inappropriate because heavy drinkers were more likely to deny their dissatisfaction. Ventegodt (1995) found an inverse U-pattern. Moderate drinkers tended to be more satisfied than both abstainers and heavy drinkers. Massin and Kopp (2014) found an inverse J-shaped relationship between a life satisfaction score and alcohol consumption: high alcohol users were most dissatisfied with their life, but the abstainers reported dissatisfaction more than those with low alcohol consumption did. Tartaglia, Gattino & Fedi (2018) have tried to interpret these inconsistent results showing that drinking motives mediated the relationship between life satisfaction and alcohol consumption. In particular, low life satisfaction increased coping expectation, which, in turn, increased alcohol consumption. This research focused on young adults, whereas no study, to our knowledge, tested this mediational model on an adult sample.

The current study

We aimed to investigate the relationship between life satisfaction and alcohol consumption would be mediated by drinking motives in adult populations. We also wanted to investigate whether the endorsement of a specific drinking motive would be differentially related to alcohol consumption. We decided to investigate binge drinking too because this behaviour typical of adolescent and young adults is now present in adult population too (ISTAT, 2018).

We hypothesized as follows:

(a) Life satisfaction would be negatively related to the coping drinking motive (i.e. drinking to cope with a negative affect) (Tartaglia et al., 2018).

(b) Enhancement motive would be positively related to binge drinking frequency (Cooper et al., 1992; Labouvie & Bates, 2002).

(c) Social motive would be related neither to general alcohol consumption nor to binge drinking frequency (Kuntsche et al., 2005).

(d) Coping motive would be positively related to general alcohol consumption and to episodes of alcohol abuse, i.e. binge drinking (Cooper et al., 1992; Kuntsche et al., 2005).

Method

Participants

Students enrolled in a methodological seminar collected the data. Each student was required to contact 10 respondents. We asked students to recruit adults from several social backgrounds and age groups. Participants were contacted directly at home and were informed that the participation to the study was voluntary and the anonymity was guaranteed. The study was conducted following the ethical principles of the Italian Society of Community Psychology.

Measures

We gathered the data by means of a self-report questionnaire including different sets of indicators. The variables used in our analysis were:

> ➢ The Drinking Motive Questionnaire (DMQ) (Cooper et al., 1992), including 15 items. The instructions for participants were 'In the last 12 months, how often did you drink…'. Items belong to three subscales measuring different motives, Enhancement (e.g. 'because you like the feeling?') (α = .87), Social (e.g. 'because it makes a social gathering more enjoyable?') (α = .83) and Coping (e.g. 'because it helps when you feel depressed or nervous?') (α = .86). Items were rated on a 4-point Likert-type scale ranging from 1 (almost never) to 4 (almost always).

> ➢ The Satisfaction with Life Scale (SLS) (Diener, Emmons, Larsen, & Griffin, 1985) composed of 5 items (e.g., "The conditions of my life are excellent") rated on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree) (α = .89).

> ➢ Alcohol consumption of the last week measured by means of three items. Participants were asked to think at the last seven days. The items were "Considering that a small beer

is 0.25 litres and a large one is 0.4 litres, how many litres of beer did you drink in the last seven days?" "How many glass of wine did you drink?" "How many glass of spirits?"

➢ Frequency of binge drinking investigated by means of a single item ("In the last 30 days, how many times have you drunk five or more drinks in a row?"). We operationalized binge drinking following the definition of Wechsler and Nelson (2001).

➢ A list of sociodemographic items.

Results

Preliminary statistics

We collected 285 questionnaires but we did not use 29 of them because of the missing values in the variables of interest. The final sample included 256 adults (50% female; average age = 34.4 years old, *SD* = 16.3) living in a big city of northern Italy. 25.2% of the participants were college graduates, 44.9% were high school graduates, and 29.9% had an educational level lower than high school. Of the respondents, 60.9% had never been married, 30.5% were married, 5.1% were divorced, and 3.5% were widowed. Concerning occupational status, 68.4% were working, 15.2% were students, 4.7% were retired, 9.4% were unemployed, and 2.3% were housewives. We combined the three indicators of weekly alcohol consumption (beer, wine, and spirits) in a single indicator. Assuming that a litre of beer contains 50 ml of pure alcohol, a glass of wine 14 ml, and a glass of spirit 26 ml (Taggi, 2007), we turned all litres of beer, glasses of wine, and glasses of spirit declared by participants into millilitres of pure alcohol. We obtained the weekly consumption of alcohol by making the sum of the millilitres of alcohol contained in the three beverages.

Table 1 reports means, standard deviations, and correlations of the variables used in the analyses. The most important drinking motive for participants was the Social one (M=2.07) (Enhancement-Social paired samples t = -10.01, p<.01; Social-Coping paired samples t = 14.22, p<.01) whereas the less important was Coping (M=1.50) (Enhancement-Coping paired samples t = 6.56, p<.01).

According to the European Core Health Indicators (ECHI)[1], in 2015 Italians consumed 6.1 litres of pure alcohol per person, equivalent to 112.96 ml per week. The participants to our study declared a consumption of 116.55 ml per week that did not differ from the national consumption (one-sample t = 0.43; p=.67). The 14% of the participants did not drink alcohol during the week before the study. Finally, we tested gender differences using independent samples t test. We found just one significant difference between males and females (t = 2.89, p<.01). Men (M=140.34) drank more alcohol compared to women (M=92.37).

Hypotheses verification

We tested a structural equations model investigating the relations among Satisfaction with life, drinking motives, and alcohol consumption indicators. The model assumed (a) the relationships between Satisfaction with life and drinking motives and (b) the relationships between drinking motives and alcohol consumption indicators (weekly consumption and binge drinking frequency). As recommended, we tested the model fit using different indexes (Hu and Bentler, 1998). We used χ^2, Comparative Fit Index (CFI), standardized root mean square residual (SRMR), and Root Mean Square Error of Approximation (RMSEA). The model (see Figure 1) was acceptable: χ^2 (196) = 493.08, p < .01, χ^2/df ratio = 2.52, CFI = .91, SRMR = .066, RMSEA = .077. We found the following significant parameters: (a) Satisfaction with life was negatively related to Enhancement (β =-.34), Social (β =-.24), and Coping (β =-.46) drinking motives; (b) Enhancement was positively related to the frequency of binge drinking in the last month (β =.58) whereas Coping was related to the weekly alcohol consumption (β =.54). The bootstrap analyses allowed estimating direct and indirect effects of Satisfaction with life on alcohol indicators. Concerning weekly alcohol consumption, the total effect of Satisfaction with life was significant (β = -.17; SE = .08; p = .03), the direct effect was not significant (β = .11; SE = .07; p >.05) and the indirect effect was significant (β = -.28; SE = .06; p = .01). Concerning the frequency of binge drinking in the last month, the total effect of Satisfaction with life was significant (β = -.22; SE = .05; p = .01), the

direct effect was not significant (β = -.06; SE = .05; p >.05) and the indirect effect was significant (β = -.16; SE = .06; p = .03). The drinking motives were correlated with each other (r ranging from .58 to .82). Weekly alcohol consumption and binge drinking in the last month were correlated (r=.33). The model explained the 34% of the variance of weekly alcohol consumption and the 22% of that of the frequency of binge drinking in the last month.

Discussion

The present study investigated the relationships among life satisfaction, drinking motives, and alcohol consumption in the adult population. We expected that life satisfaction would be related to drinking motives that in turn would be related to alcohol consumption. In particular, we hypothesized that coping motive would be related to the general consumption and to the episodes of binge drinking, enhancement motive only to binge drinking frequency and social motive neither to the general consumption nor to binge drinking. We expected that drinking motives would mediate the relation between life satisfaction and alcohol consumption too.

In line with previous research (Cooper et al., 1992; Hasking, Lyvers & Carlopio, 2011), we found that social motive (i.e. drinking to facilitate social relationships) was the most important for the participants, followed by enhancement and coping motives. Concerning alcohol consumption, our sample declared a consumption similar to the most recent national data.

Unlike a previous study conducted with a sample of young adults (Tartaglia et al., 2018), we found that life satisfaction correlated negatively not only with coping drinking motive, but also with enhancement and social motives. Adult people who are dissatisfied with their lives seem to drink to cope with negative emotions, but they are more likely to drink to enhance a positive affect and ameliorate social gatherings too. Life satisfaction is the cognitive evaluation made by the individual of his or her life, based on persons' comparisons between self-imposed criteria and their perceived life circumstances (Pavot & Diener, 1993). People considering their life conditions unsatisfactory,

may expect that alcohol helps decreasing negative emotions, but also may expect that it helps reducing the distance from their life conditions and the idealized ones.

As expected, enhancement drinking motive was related to the binge drinking frequency. This result is in line with previous studies (Cooper et al., 1992; Labouvie & Bates, 2002) which found that enhancement motive was related to heavy drinking, among both adolescents and adults. The social drinking was not related to general consumption of alcohol or binge drinking. This is consistent with researches linking social motive to a moderate but not excessive drinking (Kairouz, Glicksman, Demers & Adlaf, 2002; Simons et al., 2000). We found the expected relation between coping motive and general alcohol consumption but, contrary to previous research, drinking to attenuate negative affects was not significantly associated with the frequency of binge drinking. The relation between coping motive and heavy drinking has been reported several times on young adults (Kuntsche et al., 2005; Cooper, Agocha, & Sheldon, 2000; Labouvie & Bates, 2002). It is possible that we did not find this relation because our sample included adults of different ages and binge drinking is a behaviour typical of adolescent and young adults.

Consistent with previous research (Tartaglia et al., 2018), we found that the relationship between life satisfaction and alcohol consumption was fully mediated by drinking motives. Coping motive mediated the relationship between life satisfaction and general alcohol consumption (millilitres per week); enhancement motive mediated the effect of life satisfaction on binge drinking frequency. It is likely that adults with low life satisfaction and coping expectations, drink more frequently in order to escape their negative moods, whereas those with enhancement expectations are more prone to episodes of alcohol abuse searching for fun and excitement.

The present study has some limitations. Relying solely on people self-reports, measures of alcohol consumption might be affected by social desirability, even if anonymity was guaranteed. Another limitation of the study is the sampling method which was not random. For this reason the sample used was not representative of Italian adult population. Moreover, the cross-sectional design prevents a causal understanding of the findings. We may not exclude that individuals have low life

satisfaction because of their drinking. Finally, further studies should add other indicators in order to measure the problematic alcohol consumption (i.e. addiction) too.

To sum up, the present study showed that life satisfaction was not directly related to alcohol consumption, but influenced it through the mediation of drinking motives. People with low life satisfaction were more likely to endorse the various motivations to drink, and these motives lead people to different styles of consumption. Specifically, coping motive increased the general alcohol consumption, whereas enhancement motive influenced the frequency of binge drinking. A conclusion we may draw from our findings is that we may not automatically extend results of alcohol consumption research conducted on youths to adult population. This is in contrast to a recent study conducted in the same country (Tartaglia et al., 2018) on a sample of young adults, we found that adults' satisfaction with life was negatively related to all the drinking motives and not only to coping motive. From the point of view of prevention, our results underline the need to promote among the adult population a critical consideration of their motivations to drink. Specific interventions should focus on the coping function of alcohol consumption, which can lead to addiction. People should be helped to develop alternative coping strategies for managing negative moods resulting from unsatisfactory life conditions. Moreover, intervention should focus on expectations concerning drinking enhancement too, suggesting healthier ways of seeking fun and excitement and finally being more satisfied with life.

Footnotes

[1] https://ec.europa.eu/health/alcohol/indicators

References

Anderson, P. & Baumberg, B. (2006). Alcohol in Europe- Public Health Perspective: Report summary. *Drugs: Education, Prevention & Policy, 13,* 483-488.

Cooper, M.L. (1994). Motivations for alcohol use among adolescents: Development and validation of a four-factor model. *Psychological Assessment, 6*(2), 117-128.

Cooper, M.L., Agocha, V.B., & Sheldon, M.S. (2000). A motivational perspective on risky behaviors: The role of personality and affect regulatory processes. *Journal of Personality, 68*(6), 1058-1088.

Cooper, M.L., Frone, M.R., Russell, M. & Mudar, P. (1995). Drinking to regulate positive and negative emotions: A motivational model of alcohol use. *Journal of Personality and Social Psychology, 69*(5), 990-1005.

Cooper, M.L., Russell, M., Skinner, J.B. & Windle, M. (1992). Development and validation of a three-dimensional measure of drinking motives. *Psychological Assessment, 4*(2), 123-132.

Cox, W.M. & Klinger, E. (1988). A motivational model of alcohol use. *Journal of Abnormal Psychology, 97*, 168-180.

Crutzen, R., Kuntsche, E., & Schelleman-Offermans, K. (2013). Drinking motives and drinking behavior over time: A full cross-lagged panel study among adults. *Psychology of Addictive Behaviors*, *27*(1), 197-201.

Diener, E., Emmons, R.A., Larsen, R.J. & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment, 49*(1), 71-75.

Diulio, A.R., Cero, I., Witte, T.K. & Correia, C.J. (2014). Alcohol-related problems and life satisfaction predict motivation to change among mandated college students. *Addictive Behaviors, 39*(4), 811-817.

Gilson, K.M., Bryant, C., Bei, B., Komiti, A., Jackson, H. & Judd, F. (2013).Validation of the Drinking Motives Questionnaire (DMQ) in older adults. *Addictive Behaviors, 38,* 2196-2202.

Grant, N., Wardle, J. & Steptoe, A. (2009). The relationship between life satisfaction and health behavior: A cross-cultural analysis of young adults. *International Journal of Behavioral Medicine, 16*(3), 259-268.

Graziano, F., Bina, M., Giannotta, F. & Ciairano, S. (2012). Drinking motives and alcoholic beverage among Italian adolescents. *Journal of Adolescence, 34*(4), 823-831.

Hasking, P., Lyvers, M. & Carlopio, C. (2011). The relationship between coping strategies, alcohol expectancies, drinking motives and drinking behaviour. *Addictive Behaviors, 36*(5), 479-487.

Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological methods*, *3*(4), 424.

Istituto Nazionale di Statistica (ISTAT), (2018). *Il consumo di alcol in Italia. Anno 2017. [Alcohol consumption in Italy. Year 2017.]* https://www.istat.it/it/archivio/215088

Kairouz, S., Glicksman, L., Demers, A. & Adlaf, E.M. (2002). For all these reasons, I do…drink: A multilevel analysis of contextual reasons for drinking among Canadian undergraduates. *Journal of Studies on Alcohol, 63*(5), 600-608.

Kuntsche, E., Knibbe, R., Gmel, G. & Engels, R. (2005). Why do young people drink? A review of drinking motives. *Clinical Psychology Review, 25*, 841-861.

Kuntsche, E., Rehm, J., & Gmel, G. (2004). Characteristics of binge drinkers in Europe. *Social Science and Medicine, 59*(1), 113–127.

Labouvie, E. & Bates, M.E. (2002). Reasons for alcohol use in young adulthood: Validation of a three-dimensional measure. *Journal of Studies on Alcohol, 63,* 145-155.

Levy, A.B., Bell, R.A. & Lin, E. (1980). Life satisfaction: Aspirations and alcohol use: A preliminary report. *Social Indicators Research, 8*(4), 441-452.

Massin, S., & Kopp, P. (2014). Is life satisfaction hump-shaped with alcohol consumption? Evidence from Russian panel data. *Addictive Behaviors*, *39*(4), 803-810.

Mezquita, L. Stewart, S.H., Ibáñez, M.I., Ruipérez, M.A., Villa, H., Moya, J. & Ortet, G. (2011). Drinking motives in clinical and general population. *Research Report, 17,* 250-261.

Pavot, W. & Diener, E. (1993). Review of the Satisfaction with Life Scale. *Psychological Assessment, 5,* 164-173.

Room, R. & Mäkelä, K. (2000). Typologies of the cultural position of drinking. *Journal of Studies on Alcohol, 61*(3), 475-483.

Simons, J., Correia, C.J. & Carey, K.B. (2000). A comparison of motives for marijuana and alcohol use among experienced users. *Addictive Behaviors, 25,* 153-160.

Stewart, S.H. & Chambers, L. (2000). Relationships between drinking motives and drinking restraint. *Addictive Behaviors, 25,* 269-274.

Taggi, F. (2007). Alcol: ma quanto ce n'è in quello che bevo? [Alcohol: but how much is there in what I drink?] In F. Taggi & Marturano P. (Eds.) *Salute e sicurezza stradale: l'onda lunga del trauma [Health and road safety: the long wave of trauma]* (pp.157-161). Roma: C.A.F.I. Editore.

Tartaglia, S. (2014). Alcohol consumption among young adults in Italy: The interplay of individual and social factors. *Drugs: Education, Prevention and Policy, 21*(1), 65-71.

Tartaglia, S., Fedi, A., & Miglietta, A. (2016). Family or friends: what counts more for drinking behaviour of young adults? / Familia o amigos: ¿qué pesa más en los hábitos de consumo de alcohol de los jóvenes?, *Revista de Psicología Social*, *32*(1), 1-22. DOI: 10.1080/02134748.2016.1248029

Tartaglia, S., Gattino, S. & Fedi, A. (2018). Life satisfaction and alcohol consumption among young adults at social gatherings. *Journal of Happiness Studies, 19*(7), 2023-2034. DOI: 10.1007/s10902-017-9907-5

Ventegodt, S. (1995). *Liskvalitet I Danmark [quality of life in Denmark]*. Copenhagen, Denmark: Forskningscentrets Forlag.

Wechsler, H. & Nelson, T.F. (2001). Binge drinking and the American college students: What's five drinks? *Psychology of Addictive Behaviors, 15,* 287-291.

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TABLE AND FIGURE

Table 1. Descriptive statistics: Means, Standard Deviations, and Correlations.

	Males		Females		Correlations				
	M	SD	M	SD	1	2	3	4	5
1. Enhancement DM	1.75	0.72	1.68	0.74					
2. Social DM	2.10	0.70	2.03	0.70	.69**				
3. Coping DM	1.53	0.63	1.48	0.65	.73**	.56**			
4. Satisfaction with Life	4.48	1.19	4.54	1.28	- .29**	- .20**	- .41**		
5. Weekly alcohol consumption	140.34	158.75	92.37	96.33	.46**	.32**	.53**	-.16*	
6. Binge drinking in the last month	1.44	2.76	1.52	3.47	.41**	.26**	.38**	- .23**	.49**

** p<.01; * p<.05.

DM = Drinking Motive.

Figure 1. The model tested: Standardized regression weights
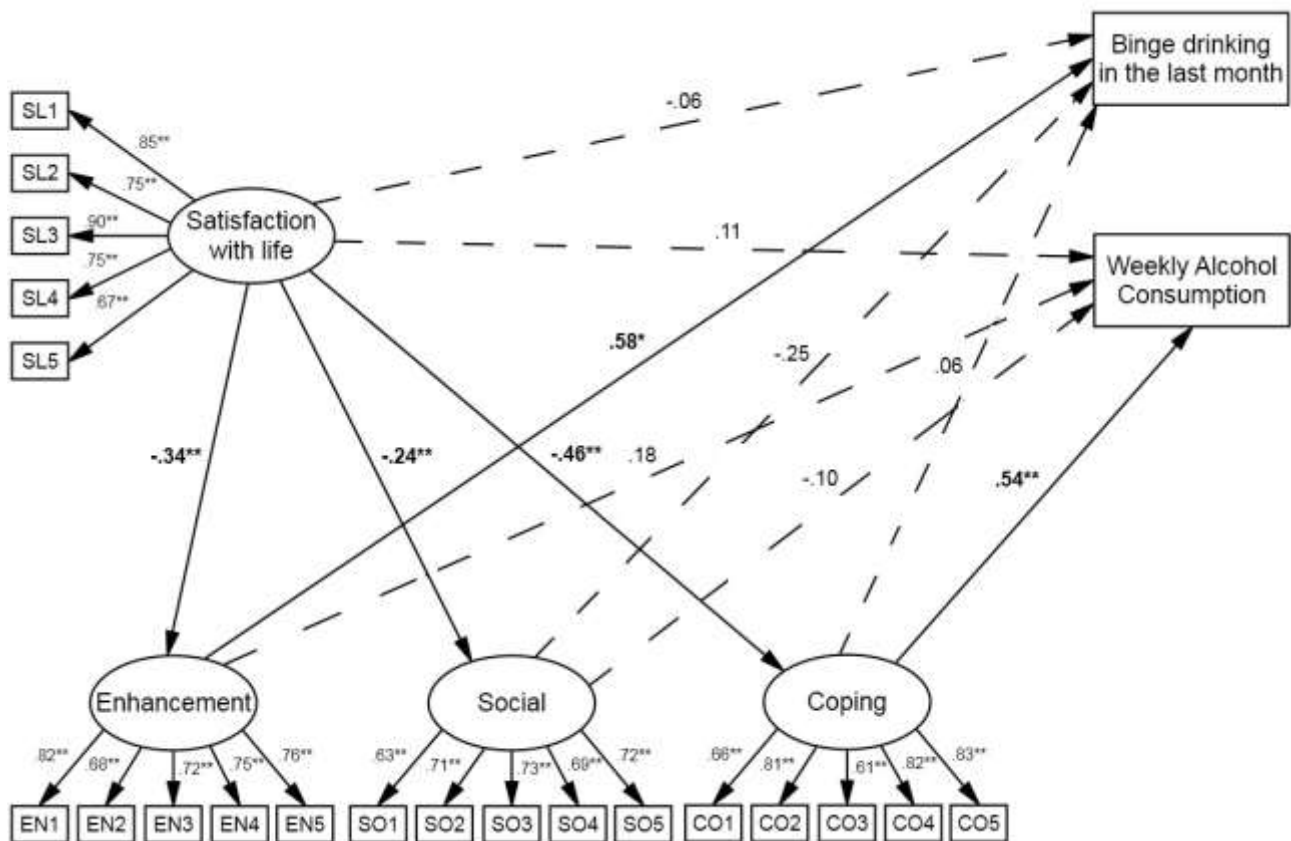
** p<.01; *p<.05

Errors of the indicators and latent variables and correlations were omitted from the figure in order to make it easier to view.