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Chapter 3

The role of psychological distress on the relationship between drinking motives and hazardous drinking in older adults

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ABSTRACT

Introduction: Drinking motives seem to be the most proximal predictors of alcohol outcomes. Consequently these are an essential factor to consider as they may influence the extent to which alcohol is used in a risky way, even in older adults.

Objective: We studied the moderating effect of distress on the relationship between drinking motives and drinking behaviour in a community-dwelling older adults sample.

Method: In a retrospective cross-sectional research study 1148 participants were community-dwelling older adults aged 65 years and older. All respondents completed a questionnaire covering the Drinking Motive Questionnaire (DMQ), the Alcohol Use Disorder Identification Test (AUDIT), and the General Severity Index (GSI) of the Brief Symptomatic Inventory (BSI).

Results: The mean observed scores for motives were social motives: 2.31/5 (SD=1.26), enhancement motives: 1.40/5 (SD=.53) and coping motives: 2.17/5 (SD=.89), AUDIT: 4.06/40 (SD=3.51) and GSI: .40/1 (SD=.38). AUDIT score was the strongest positively related to enhancement motives ($r=.478$, $p<.001$), followed by coping and social motives (respectively $r=.367$, $p<.001$ and $r=.235$, $p<.001$). The associations between enhancement motives and distress ($\beta=1.987$, C.I. (95%)=1.386-2.588, $p<.001$) as well as coping motives and distress ($\beta=1.759$, C.I. (95%)=1.263-2.255, $p<.001$) on AUDIT were positive and significant.

Conclusion: The relations between coping drinking motives and enhancement drinking motives on hazardous drinking depended on the level of distress. The associations between drinking for coping and drinking for enhancement was stronger in high levels of distress. Although causality cannot be interpreted from cross-sectional data, tackling psychological distress and drinking to cope with negative affect or to enhance positive affect might have strong effects on reducing hazardous drinking behaviour among older adults.

INTRODUCTION

Older adults and alcohol use

Within the Western world alcohol use disorders are increasing rapidly, specifically among older people. A recent large epidemiological study showed an 106.7% increase of alcohol-dependence in the US over a 10-year period of in the age group over 65 years [1]. Also, in Europe a recent study in 6 European countries showed that 65 % of the participants reported alcohol consumption during the past 12-months and 5.3% met DSM-IV-TR criteria of Alcohol Use Disorders [2]. Overall, a trend of increasing alcohol use in older populations is observed. Reasons may be manifold, with among others longer healthy lifespans allowing more and longer social contacts and continuation of alcohol drinking culture and habit [3, 4]. Specifically in older individuals alcohol use may also be associated with an increase in alcohol related harm. A recent systematic review confirmed the importance of alcohol use as a risk factor for disease and injuries in this population [5].

Drinking motives

Many different perspectives have been suggested to explain patterns of alcohol use [6]. One of these is the Drinking Motive Theory that is based on the motivational model of alcohol use and proposes that people are using alcohol to regulate both positive and negative emotions [7]. Three drinking motives were described based on this motivational model of alcohol use: 1. social motives (drinking for social reward), 2. enhancement motives (drinking to enhance positive mood) and 3. coping motives (drinking to attenuate negative emotions) [8]. Current literature on drinking motives and alcohol use focusses predominantly on adolescents and adults. In these populations, drinking motives and its association with drinking behaviour have been well established [9-11]. Social motives are generally the most endorsed motives [10, 12, 13] and are generally related to frequency of consumption, especially in social situations [7, 14]. Furthermore, several studies reported a relation between social drinking and alcohol problems [14-16]. Heavy social drinking is a phenomenon that may lead to more at-risk drinking and hence to alcohol related problems [15]. Enhancement motives were mostly associated with quantity and frequency of alcohol use [12, 14]. However, Grant et al. (2007) and Lyvers et al. (2010) found a relationship between enhancement and alcohol related problems. Additionally, Németh et al. (2011) described the relationship between enhancement motives and drunkenness. This type of drinker might consume considerable quantities to enhance the effects of alcohol and to have fun which finally can lead to problems [14]. The link between coping motives and alcohol use was also described [12, 14, 16]. Studies supported the assumption that drinking to cope with negative feelings was an indicator for problem drinking [12] and alcohol

related problems [12, 14, 16]. This suggests that those drinking to cope report a greater preoccupation with drinking, which in turn is related to more drinking [14].

Studies investigated why older adults drink alcohol but only a few used theoretically driven constructs such as the Drinking Motive Questionnaire (DMQ) [17]. Reviewing the literature, we identified studies using the DMQ solely in an older population [13, 17-19]. In Gilson et al. (2013) and Sacco et al. (2015) social motives were the most endorsed drinking motive. In both studies drinking for social motives were associated with quantity of alcohol use [17, 19]. In Gilson et al. (2013), about 30% of the older adults endorsed enhancement motives which may suggest that drinking to enhance positive feelings is relevant to older adult's decision to use alcohol. Sacco et al. (2015) however, did not report data considering enhancement motives among their participants. Studies on the coping motives among older adults reported an association between coping motives and problem drinking [17-19]. Our current study builds on these findings to examine the drinking motives of community-dwelling older adults by using a standardised measurement, the DMQ.

Alcohol and negative emotions in older adults

Negative emotions are common in older adults, often due to the changes [20, 21] and loss experiences associated with aging. Some studies suggested a relationship between heavy alcohol use and higher levels of negative emotions [22-24] which is consistent with the 'stress-coping' model [6]. This model postulate that people consume alcohol as a coping response to stress, where it is used to enhance positive affect and/or to decrease an aversive mood [6, 13]. Consequently, when alcohol is used in the absence of effective and adaptive coping strategies, individuals are at risk of engaging in problematic drinking behaviour [6]. A recent study reported that initial involvement in heavy alcohol use combined with reliance on alcohol as a coping response, in interaction with stressful events predicted even higher levels of maladaptive alcohol use across time [25]. Thus, those who rely on alcohol to cope may become even more psychologically dependent on alcohol in the near future, requiring alcohol to cope with the negative emotions generated by the challenges of everyday life and therefore are less able to exercise volitional control over their drinking in time. Because of this dependence, these individuals are more likely to drink in unfavourable circumstances and even continue to drink despite the occurrence of problems related to their (problematic) alcohol use [7].

The current study

Through the conceptual framework of the Drinking Motive Theory, this study examines the association between drinking motives, psychological distress and hazardous drinking behaviour among a large sample of community-dwelling older adults. As mentioned, the relation between drinking motives and hazardous drinking behaviour in other populations has been well established. However, data of drinking motives in community-dwelling older adults are lacking. Additionally, the link between drinking motives, psychological distress and alcohol use behaviour in older adults, is poorly studied. This is surprising since drinking motives are theorized to be the most proximal predictor of alcohol outcomes. Hence, they are an important factor to consider as these might influence the extent to which alcohol is used in a risky way [7]. Moreover, at-risk drinking is an increasing phenomenon among older adults [1] which has been linked with negative emotions [22-24]. Alcohol complicates health inequalities across the life course [26]. Older adults are more likely than younger adults to be admitted to hospital for alcohol related conditions [27] and have an increased risk for alcohol specific death [28]. In older adults, the greater vulnerability to the effects of alcohol necessitates a better understanding of drinking practices. The contribution of this study is in the examination of individual drinking motives in a large sample of community-dwelling older adults which can provide insight into alcohol use behaviour in older adults. Given the potential adverse consequences of hazardous drinking on the health of older adults [5] it is necessary to understand why older adults use alcohol in risky ways. Interventions including personal feedback are efficient in reducing at-risk alcohol use among older adults [29]. Tailored prevention and intervention programmes that take drinking motives and psychological distress into account, might be successful in reducing at-risk drinking among older adults.

We aimed to address the following research questions. First, what is the interrelation between drinking motives, hazardous drinking behaviour and psychological distress among older adults? Based on literature, we hypothesize the presence of a positive association between endorsing the drinking motives (especially drinking for coping) and hazardous drinking and psychological distress. Secondly, does psychological distress moderate the relationship between drinking motives and drinking behaviour in older adults? We hypothesize a moderation role of psychological distress in a way that in higher levels of psychological distress, the relation between drinking motives (especially drinking for coping) and hazardous drinking behaviour will be stronger than in lower levels of distress.

METHODS

Participants

The sample population consisted of 1.148 older adults living in Flanders, the northern part of Belgium. All respondents were enrolled from October 2013 to April 2016. Eligible participants were aged 65 and older, able to read and understand Dutch and reported drinking at least one alcoholic beverage in the past 12 months. This sample is part of a larger study on the drinking patterns of older adults in Belgium.

Trained research assistants recruited participants via snowball sampling method. Older adults were contacted through community centres and local activities events. All participants were asked if they knew someone who would be prepared to fill in the same questionnaire.

Procedure

Most older adults were able to complete in the questionnaires by themselves. However, a trained interviewer was always present to help the respondent if necessary. Furthermore, participants were given an explanation about the purpose and procedure of the study and an informed consent. When both spouses were interviewed, they were put in different rooms and were interviewed separately. A written informed consent was obtained before starting the survey: no names were registered and all the obtained data were processed by the research team.

Measurements

Drinking motives

The Drinking Motives Questionnaire (DMQ) [17] was used to measure the motivations to use alcoholic beverages. The 15-item scale consists of three subscales: 1. social, 2. enhancement and 3. coping drinking motives. Responses options ranged from 1 (almost never/never) to 5 (almost always). Higher scores on each subscale indicate greater endorsement of that particular drinking motive. The three-dimensional structure of the DMQ is a suitable and valid instrument for older adults to assess their reasons for alcohol use. The three motive subscales, social motives, enhancement motives and coping motives, proved to have a good reliability (alphas were .92 for social, .86 for enhancement and .86 for coping) [17] and will be used for analyses as continuous variables. As the 'stress-coping' model suggests that people consume alcohol to reduce tension or

enhance positive affect [6] to the extent that alcohol serves as a positive reinforcer that may be learned and fostered across time [25], drinking motives will be used as predictors in the analyses.

Psychological distress

Participants completed the Brief Symptom Inventory (BSI) as a self-report measurement for mental health. The instrument includes 53 items and assesses nine symptom dimensions across three global indexes. Each item of the BSI is rated on a 5-point scale of distress, ranging from 'not-at-all' to 'extremely'. The rankings characterize the intensity of distress during the past seven days. The three global indexes of distress associated with the BSI are the General Severity Index (GSI), the Positive Symptom Distress Index (PSDI) and the Positive Symptom Total (PST). The GSI is calculating using the sums for the nine symptom dimensions plus the four additional items not included in the dimension scores and dividing by the total number of items to which the individual responded. It is the most sensitive indicator of the respondent's distress level because it combines information about the number of symptoms and the intensity of distress [30]. For this study the level of distress (GSI) will be used as moderator in the analyses. Cronbach's alpha for all nine dimensions ranged from .71 to .85 and for the GSI .90 [30].

Drinking behaviour

The Alcohol Use Disorder Identification Test (AUDIT) [31] was used to assess the alcohol use during the past year. It contains ten questions: three regarding quantity and frequency of alcohol use, three regarding alcohol dependence and four regarding problems caused by alcohol misuse. Each item receives a score of 0 to 4. For the statistical analyses we used the AUDIT total score as a continuous variable as outcome in the analyses. The total score represents the level of hazardous drinking. Cronbach's alpha for the full scale (AUDIT) in our sample was .77. Using the guideline of $\geq .70$ makes this value acceptable for internal consistency [32].

Three covariates were used in the statistical analyses: gender, age and smoking. Several studies reported an association between higher levels of alcohol and male gender [18, 33, 34], being 65-75 years old [18, 34, 35] and being a smoker [33, 34, 36, 37]. Therefore we included those covariates in all statistical models.

Statistical analyses

First, we conducted independent sample t-tests to compare covariates men/women and smoker/non-smoker in their drinking motives (social drinking motive, enhancement drinking motive and coping drinking motive), hazardous drinking (AUDIT score) and distress (GSI score).

Secondly, Pearson correlations were used to calculate bivariate intercorrelations between covariate age, predictors (drinking motives), moderator (GSI) and dependent variable (AUDIT). To test the main effect between drinking motives and hazardous drinking, linear regression analyses that controlled for age, gender and smoking were conducted. We evaluated the main effects separately by conducting three models, one for each drinking motive.

Finally, to investigate whether distress moderated the association between drinking motives and hazardous drinking, we added the interaction terms as a predictor. These interaction terms were the independent variables (eg. social drinking motives) multiplied by the moderator (distress). We conducted three models, one for each drinking motive. We visualized the interactions in simple slope plots showing the predicted association between drinking motives and hazardous drinking at low and high levels of distress (a low level referred to one SD below the mean and high level referred to one SD above the mean). To test the models of moderation the PROCESS Procedure for SPSS Version 3.2 was used (www.guilford.com/p/hayes). Covariates gender, age and smoking were included in all three models.

The statistical analyses were conducted using SPSS (IBM Corp. Released 2017. IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.).

RESULTS

Sample

Of the 1,148 participants (Table 1), 52.7% were women, 10.3% being a smoker with a mean age of 73.02 years (SD= 5.94, range 65-93) (age not represented in Table 1). In comparison to women, men reported significantly higher scores on all three drinking motives (social motives: $t(1139)=-3.033$, $p=.002$; enhancement motives: $t(1136)=-3.113$, $p=.002$; coping motives: $t(1124)=-5.746$, $p<.001$). Additionally, men reported significantly higher scores on the AUDIT ($t(1143)=-8.093$, $p<.001$). There is no difference between men and women regarding the GSI ($t(1074)=.814$, $p=.416$). Smokers and non-smokers reported no difference in scores on the social and coping drinking motives (respectively $t(1139)=1.730$, $p=.084$ and $t(1124)=-.513$, $p=.608$). On the other hand, smokers reported significantly

higher scores on the enhancement drinking motives ($t(1136)=-3.973, p<.001$). Furthermore, they also reported significantly higher scores on the AUDIT ($t(1143)=-7.695, p<.001$) and GSI ($t(1074)=-2.984, p=.003$).

Table 1: Descriptive of drinking motives, hazardous drinking, and psychological distress

	N	%	DRINKING MOTIVES				HAZARDOUS DRINKING				PSYCHOLOGICAL DISTRESS						
			Social motives*		p	Enhancement motives*		p	Coping motives*		p	AUDIT score**		p	GSI score***		p
			M	(SD)		M	(SD)		M	(SD)		M	(SD)		M	(SD)	
TOTAL DRINKING SAMPLE	1148		2.31	1.26		1.40	.53		2.17	.89		4.08	3.51		.40	.38	
GENDER					.002			.002			<.001			<.001			.416
men	543	47.3	2.42	1.27		1.46	.52		2.32	.93		4.94	4.18		.39	.369	
women	605	52.7	2.20	1.24		1.36	.53		2.02	.84		3.31	2.53		.41	.395	
SMOKING					.084			<.001			.608			<.001			.003
no	1030	89.7	2.33	1.26		1.38	.51		2.16	.90		3.81	2.92		.39	.361	
yes	118	10.3	2.12	1.31		1.59	.66		2.21	.86		6.37	6.27		.50	.521	
<i>* Range 1-5</i>																	
<i>** Range 0-40</i>																	
<i>***Range 0-1</i>																	

Table 2: Bivariate correlations between covariate age, drinking motives, psychological distress, and hazardous drinking

	COVARIATE	DRINKING MOTIVES			HAZARDOUS DRINKING	PSYCHOLOGICAL DISTRESS
	Age	Social motives	Enhancement motives	Coping motives	Total score AUDIT	GSI score
COVARIATE						
Age	1					
DRINKING MOTIVES						
Social motives	.048	1				
Enhancement motives	-.120**	.261**	1			
Coping motives	-.070*	.632**	.543**	1		
HAZARDOUS DRINKING						
Total score AUDIT	-.148**	.235**	.478**	.367**	1	
PSYCHOLOGICAL DISTRESS						
GSI score	-.041	.019	.326**	.091**	.286**	1
* Pearson Correlation is significant at the 0.05 level						
** Pearson Correlation is significant at the 0.01 level						

Bivariate correlations between the various study measures are shown in Table 2. Most study measurements were significantly intercorrelated. AUDIT score was the strongest related to enhancement motives ($r=.478$, $p<.001$), followed by coping and social motives (respectively $r=.367$, $p<.001$ and $r=.235$, $p<.001$). Psychological distress was significantly related to enhancement motives ($r=.326$, $p<.001$) and coping motives ($r=.091$, $p<.001$) and to AUDIT total score ($r=.286$, $p<.001$).

Moderation effects

We investigated whether psychological distress might moderate the relationship between drinking motives and hazardous drinking (Table 3). As mentioned before, all analyses were controlled for age, gender and smoking.

Table 3: Moderating effect of psychological distress on the relationship between drinking motives and hazardous drinking

	OUTCOME: total score AUDIT						
	<i>Unstandardized B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI		<i>R</i> ²
					LLCI	ULCI	
Distress	2.518	.255	9.860	<.001	2.017	3.019	.193
Social Drinking Motives*	.652	.076	8.560	<.001	.502	.801	.167
SOCIALxDISTRESS**	.319	.185	1.722	.085	(-.045)	.684	.244
Enhancement Drinking Motives*	2.889	.169	17.055	<.001	2.557	3.222	.295
ENHANCEMENTxDISTRESS**	1.987	.306	6.487	<.001	1.386	2.588	.338
Coping Drinking Motives*	1.284	.106	12.161	<.001	1.077	1.491	.219
COPINGxDISTRESS**	1.759	.252	6.961	<.001	1.263	2.255	.310
<i>Controlled for covariates gender, age and smoking</i>							
<i>* Main effect by linear regression analyse</i>							
<i>** Moderation analyses by PROCESS Procedure by Hayes</i>							

Results indicated that higher levels of distress ($\beta=2.518$, C.I. (95%)=2.017-3.019, $p<.001$) and higher levels of endorsement on all three drinking motives (social motives: $\beta=.234$, C.I. (95%)=.502-.801, $p<.001$; enhancement motives: $\beta=.433$, C.I. (95%)= 2.557-3.222, $p<.001$; coping motives: $\beta=.327$, C.I. (95%)= 1.077-1.491, $p<.001$) were associated with higher AUDIT scores.

There is a significant positive association between enhancement motives and distress ($\beta=1.987$, C.I. (95%)=1.386-2.588, $p<.001$) (Figure 1). Each of the simple slope tests revealed a significant positive association between drinking for coping motives and AUDIT, but drinking for coping reasons was more strongly related to AUDIT for higher levels of distress ($b= 1.701$, $t(1046)= 13.227$, $SE = .129$, $p<.001$) than for lower levels of distress ($b= .605$, $t(1046)= 4.621$, $SE = .131$, $p<.001$) (not representant in Table).

There is a significant positive association between coping motives and distress ($\beta=1.759$, C.I. (95%)=1.263-2.255, $p<.001$) (Figure 2). Each of the simple slope tests revealed a significant positive association between drinking for enhancement motives and AUDIT, but drinking for enhancement reasons was more strongly related to AUDIT for higher levels of distress ($b= 2.645$, $t(1058)= 14.572$, $SE = .182$, $p<.001$) than for lower levels of distress ($b= 1.428$, $t(1058)= 5.923$, $SE = .241$, $p<.001$) (not representant in Table).

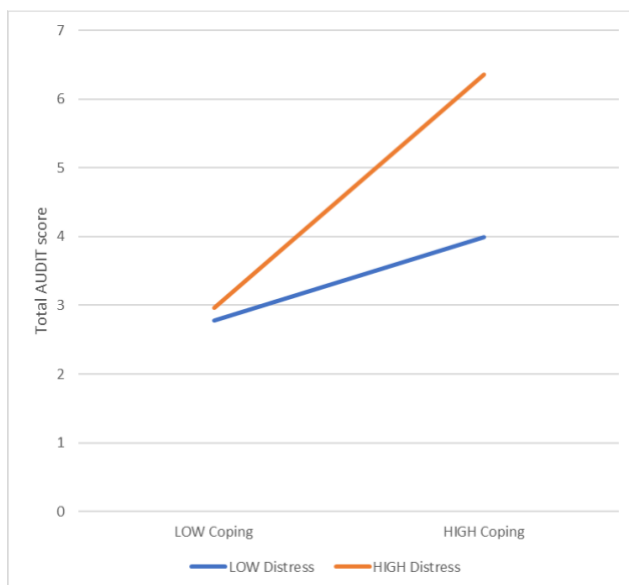


Figure 1: Psychological distress moderates the association between coping motives and AUDIT score

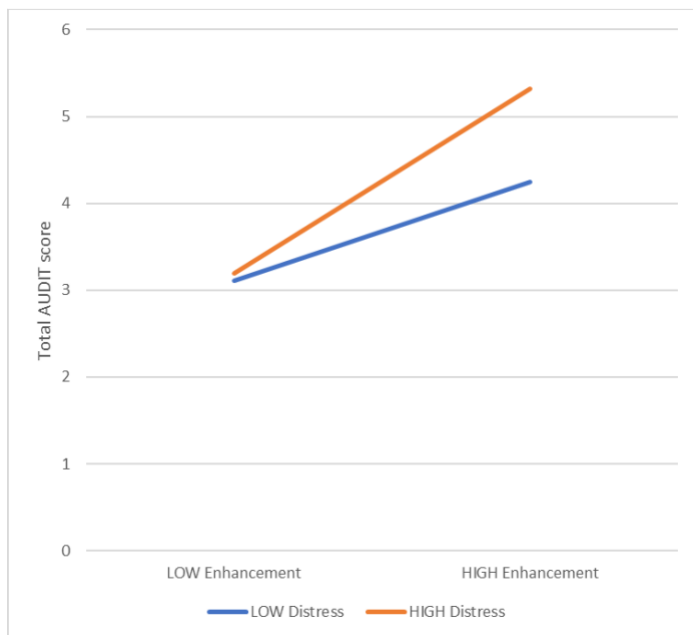


Figure 2: Psychological distress moderates the association between enhancement motives and AUDIT score

DISCUSSION

This study explored the relationship between drinking motives, psychological distress and hazardous drinking in community-dwelling older adults.

In both men and women, the rank of order of motives was social motives > coping motives > enhancement motives. Social motives are usually the most endorsed drinking motives in (younger) adults [10, 12, 13] as well as in older adults [17, 19, 38, 39]. Our results confirm this trend. In our population the second most reported drinking motives are the coping motives. This is not consistent with previous research in (younger) adults [10, 12] nor in older adults [17]. Generally, these motives are the last cited of the three motives. Our study indicated the importance of coping motives to use alcohol among older adults. Drinking to cope refers to the use of alcohol to escape or regulate negative emotions [7]. In this sense, we have to acknowledge that older adults are motivated to use alcohol to ease negative emotional states [18].

Hazardous drinking was the strongest related to enhancement motives, followed by coping and social motives. All associations were positive and significant. Research among (young) adults confirms these results [12, 14-16] which may lead to the assumption that the tendencies of drinking motives and alcohol problems are quiet similar. More research is needed on this topic.

In our sample psychological distress was the strongest related to enhancement motives indicating that older adults experiencing psychological distress tend to use alcohol in order to boost their positive emotions. The association between distress and coping motives was weak but significant. Enhancement motives as well as coping motives are both motives with a focus on an impact on the state of mind [40]. Recent literature on drinking motives among adults and older adults reported predominantly the association between poor mental health and drinking to cope [13, 18, 25]. In a study conducted among older adults, almost 72% of the population with poor mental health reported drinking for coping reasons which might emphasize the link between negative emotions and drinking coping motives [23]. As literature focussed on coping motives, our results suggest that health practitioners also need to be aware of the use and misuse of alcohol to enhance positive feelings in older adults with psychological distress.

Moderation effects

The focus of the moderation analyses was the ability of psychological distress to moderate the relationship between drinking motives and hazardous drinking. Our results suggested that the association between enhancement motives and the level of hazardous drinking, as well as the association between coping motives on the level of hazardous drinking, depended on the level of distress. More precisely, older adults drinking predominantly for coping reasons or for enhancement motives, in conjunction with high levels of distress, will report higher levels of hazardous drinking. This suggests that the association between coping and enhancement drinking motives on hazardous drinking were more robust among older adults with higher level of distress. This is consistent with the 'stress-coping' model posing that people consume alcohol as a coping response to stress where alcohol is used to enhance positive affect (enhancement motives) and/or decrease an aversive mood (coping motives). Involvement in heavy alcohol consumption combined with dependence on alcohol to cope, in interaction with stressful events, predicted a higher level of hazardous alcohol consumption over time [25]. Hence, those who depend on alcohol to cope can become psychologically dependent on alcohol, making alcohol necessary to handle negative emotions created by the changes of ageing and in daily life. This makes older adults less able to exercise control over their alcohol use behaviour. Their dependence increases the likelihood that they will drink and continue to drink in unfavourable conditions despite the occurrence of problems associated with their use [7].

Implications

The 'stress-coping' model suggests that people consume alcohol to reduce tension or enhance positive affect [6] to the extent that alcohol serves as a positive reinforcer that may be learned and fostered across time [25]. Our results have implications for prevention and treatment, suggesting that interventions for older adults with hazardous alcohol use behaviour should attempt to transform the tendency to use alcohol by changing their state of mind. In order to do so, it is necessary to identify and address the distress of the elderly. Therapeutic intervention (e.g. cognitive behavioural therapy) can be used very effectively in treating emotional problems of older adults. A tailored approach considering the person's unique needs (eg. internal state, drinking motives) taking into account the challenges associated with ageing appears to be very effective [41]. Furthermore, information about the motives for using alcohol can help adapting prevention and intervention strategies to reduce hazardous alcohol consumption [42] and hence alcohol problems [43]. Older adults are tended to reduce their alcohol consumption when they are given a personalized explanation about their alcohol use and health [44] as most older adults reduce their alcohol consumption for health reasons [38, 45].

Strengths and limitations

The strength of this study is the comprehensive range of drinking motives proposed to older adults. The present study is, to our knowledge, the only study in Europe to use an extended assessment tool to investigate the drinking motives of a community-dwelling older population. The novel contribution of this study is in the examination of drinking motives in a large sample of community-dwelling older adults and their association with alcohol use behaviour.

There are some limitations in this study. Individuals who suffer from severe mental health problems associated with alcohol use were unlikely to participate in this study. It was, however, not our purpose to concentrate on older adults with psychiatric disorders like alcohol use disorder or mood disorders. These results cannot be generalized for older adults in sheltered homes as they might have different characteristics than community-dwelling older adults. Furthermore, although the privacy of the sealed envelope method may support more honest self-reporting of alcohol use and psychological distress, the methodology might have led to social desirable answers. It might be possible to assume that hazardous alcohol use and levels of distress are likely to be underreported. Another concern is the snowball sampling as it may limit the representativeness of the sample of the population of older adults in Belgium. However, when a study involves items that one can consider as private, such as alcohol use might be for older adults, snowball sampling might be particularly

beneficial [46]. Finally, the cross-sectional design does not allow us to draw conclusions on the direction of the associations. For example we found an association between drinking to cope and distress, but there is the distinct possibility that the causal order is the opposite of our hypothesis. People who scored higher on the AUDIT experienced higher levels of distress because of their drinking. They may self-report drinking to cope, but the drinking drives the distress rather than vice-versa. Similarly people who have more positive physiological experiences of alcohol may report using to enhance their emotional states, but that may be a result of physiological differences rather than distress.

CONCLUSION

Drinking motives and hazardous alcohol use behaviour are associated. Furthermore, older adults drinking predominantly for enhancement or coping motives in conjunction with high level of psychological distress were more likely to report a higher degree of hazardous alcohol use. Understanding these associations between drinking motives, distress and alcohol use behaviour could help identifying older adults. Consequently, they can be more effectively supported by reducing their alcohol use focussing on their levels of distress instead of their drinking motives. Psychological distress might be seen as a variable factor and can be successfully tackled, in contrary to drinking motives that might be seen as a trait that has been fostered over time. Future research would benefit from a longitudinal study of the relationship between these variables. This could lead to greater understanding of the alcohol behaviour of older adults and the establishment of more targeted prevention and intervention programmes.

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