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Motives of abstinence versus metacognition and self-conscious emotions in people addicted to alcohol

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Summary

Aim. The target of the present study was to show the relationship between time and motives for maintaining abstinence and metacognitive beliefs about alcohol and self-conscious emotions.

Methods. Ninety-one alcohol-dependent individuals who are currently maintaining abstinence participated in the study. Three instruments were used to measure individual variables: RALD was used to examine motives for maintaining abstinence, MPA was used to measure the level of individual metacognitive beliefs about alcohol, and SUM 5 was used to measure the level of self-conscious emotions in addicts who maintain abstinence. Correlation analyses were performed and differences in mean ranks of metacognition and self-conscious emotions were examined for the two independent samples.

Results. All metacognitive beliefs were shown to negatively correlate with abstinence time. Some metacognitive beliefs were negatively associated with abstinence motives. Moreover, positive associations of self-conscious emotions and metacognitive beliefs with time and abstinence motives were found. Both metacognitive beliefs and self-conscious emotions have different mean levels depending on the duration of abstinence.

Conclusions. The study revealed that both psychological constructs are related to abstinence maintenance and can be creatively used in further analyses of addiction recovery and relapse prevention.

Key words: abstinence motives, metacognitive beliefs, self-conscious emotions

Introduction

In light of the latest research on the heteronomous model of alcohol dependence, the recommendations and goals of treatment should be adjusted depending on the type of alcohol dependence. Researchers referring to the above-mentioned model recommend that total abstinence as a therapeutic target is optimal for people with Lesch types I and IV alcohol dependence, the symptoms of which are: strong withdrawal symptoms, i.e.,

hand tremors, tachycardia, changes in blood pressure, seizures, and severe cravings for alcohol intake [1, 2]. In other types of addiction, abstinence still remains the optimal goal, however, it does not exclude other therapeutic strategies [3, 4]. Referring to the above distinction, in this research, the problem of abstinence in addicts is understood as a state of remission of addiction symptoms, never a return to the state of full control of drinking. The concept of remission and its division have been adopted in this study in accordance with the latest ICD-11 classification [5].

Bearing in mind that the addict in his motivational processes focuses primarily on the use of alcohol and the expectations related to it, it is necessary to focus on the reasons for not drinking in the analysis of abstinence. Most generally, among addicts, the motives for not drinking can be divided into two groups: external and internal [6]. Research focusing in detail on the problem of not drinking motives is quite rare [7]. At the moment, there is no systematic and common classification of the motives of abstinence. For example, there are studies that identify ten motives for not drinking [8], but there are also studies that identify up to fourteen factors [9]. Other authors conducted studies using one or two factors, motives for not drinking [10]. According to the authors of the research, the full factor structure of the motives for not drinking includes religious/moral reasons, the desire to maintain personal control, upbringing, concerns about expenses, and the desire to avoid negative consequences. This model was the best developed psychometrically [11].

Researchers and addiction therapists agree that the internal change of an addict occurs when the patient has the appropriate motivation to change his previous behavior [12]. The main goal of treatment is to help the patients gain insight into their own thinking and emotions in the context of dealing with dysfunctional beliefs about alcohol and about themselves. The next step is learning to find constructive behaviors that remained beyond the limits of mental perception during addiction [13]. Thus, at this stage, we can conclude that it is precisely two aspects of a person's mental life that are of fundamental importance in the development of addiction as well as in obtaining abstinence. These are cognitive processes and experienced emotions. Both of these constructs in the context of abstinence will be discussed later in the paper. The analyses will be presented in terms of metacognition and self-conscious emotions.

Metacognition

The term metacognition is everything that people know about their own cognitive processes and use this self-knowledge to regulate their own behavior and information processing [14]. In this approach, we can most simply define it as "thinking about own thinking" or "cognition of cognition". Metacognition theorists distinguished two levels of cognitive structures: the meta-level (self-knowledge) and the object-oriented level (cognitive and affective processes). Their mutual relation is described in terms of monitoring (when the level of meta processes observes changes at the object level) and control (when the object level is regulated by meta structures). In the metacognitive

paradigm, monitoring is defined as being aware of having one's own knowledge and monitoring the course of one's own cognitive and emotional processes on an ongoing basis [14]. Control, on the other hand, appears as a disposition to regulate one's own behavior in accordance with the intention.

Wells and Matthews were the researchers who attempted to link psychopathology with metacognition [15]. They included their theory in a model they called the self-regulatory executive function (S-REF), in which the top-down mechanism, i.e., metacognitive information flow plays a leading role [16]. The course of the entire process is specific to a given situation and exists as long as this unwanted mental state persists [17]. If the self-regulation strategy is maladaptive then it may contribute to the formation of incorrect meta-beliefs [18]. We can see that the connection of psychopathology with the metacognitive model focuses on the maladaptive way of regulating emotions and dysfunctional beliefs about specific coping strategies.

In the S-REF model we are discussing, incorrect metacognition is manifested through the so-called cognitive-attentional syndrome (CAS). According to the researchers' concept, it can be defined first of all as perseverative, difficult to control thinking in the form of worry or rumination. Secondly, it is characterized by an attentive style of threat monitoring. This, in turn, leads to coping strategies which, due to fixation, do not allow for effective modification of dysfunctional beliefs [19].

In the context of alcohol addiction, the above metacognitive model was developed by Spade et al. [20]. They saw that drinking alcohol was caused by the presence of an abnormal metacognitive process. Researchers referring to the S-REF model highlighted two types of dysfunctional metacognitive beliefs about alcohol consumption: positive and negative. The first group is the type of expectations towards alcohol consumption. According to them, drinking itself is a cognitive-emotional regulation strategy (e.g., belief: drinking alcohol helps to relax). The second group of negative beliefs is related to the feeling of a lack of control over the drinking process and to cognitive damage (e.g., belief: I am not able to control my drinking). According to the researchers, positive beliefs influence an individual's involvement in drinking alcohol in the initial stage of addiction. These negative factors contribute to the further drinking of alcohol and the progressive development of addiction in its later stages [21]. An important element that enhances the effects of dysfunctional metacognition is the presence of the cognitive-attention syndrome (CAS). It adversely affects the experience of negative emotional states, and also leads to their intensification and prolongation. It occurs in three phases of drinking alcohol: before engaging in drinking, during drinking, and after stopping drinking [20].

So far, research has related maladaptive metacognition to active addiction or alcohol abuse [22]. There are single studies that show the role of metacognitive changes in an addicted person in the context of maintaining abstinence [23]. As predicted, levels of dysfunctional metacognition were highest in current drinkers and lowest in those who completed inpatient therapy. Importantly, the group of addicts entering drug addiction treatment showed a characteristic pattern of metacognitive style, including the use of

positive drinking assessment as a strategy to control negative emotions and thoughts. Therefore, maintaining maladaptive metacognitions may have a significant impact on the risk of recurrence [24]. However, researchers in their analyses combining metacognition with abstinence actually focus on the time dimension. There are no links in the literature with other dimensions of abstinence. On the basis of the research conducted so far, however, the authors agree that the change in metacognitive beliefs has a positive effect on the treatment of many mental disorders, including addiction [19]. The relationship between metacognition and abstinence will be shown later in this paper.

Self-conscious emotions

The important part for the topic of this work is the issue of self-conscious emotions. The conceptualization was proposed by Lewis [25], who did it from a cognitive-attributive perspective. Self-conscious emotions usually refer to principles and rules that are relevant to the individual and thus internalized. These principles and norms may be of a moral, social or personal nature [26]. Self-conscious emotions arise as a result of the self-assessment of one's own behavior, but they can also appear in situations where someone else's behavior is assessed in relation to norms important for an individual [27].

The individual compares the sphere of self in relation to norms, standards and own aspirations, and then carries out the self-attribution of himself and his behavior and their interpretation as consistent or inconsistent with the above-mentioned principles [25]. Self-attribution is of two types. Firstly, it concerns the entirety of the self, hence we can talk about the self-esteem of a global individual or a characterological-personality self-esteem. On the other hand, we can talk about partial attribution, when not the individual as a whole is assessed, but his specific behaviors and deeds, so we are dealing here with a behavioral assessment [28].

In the context of the emergence of self-conscious emotions in mental life, we will be most interested in the aspect of self-esteem. On the basis of the presented concept, specific self-conscious emotions can be distinguished: shame, guilt, hubris, and pride [25].

When an individual transgresses, he may feel ashamed. It is an emotion that has a particularly negative impact on the inner life of an individual. It concerns the overall, global attribution of an individual. Experiencing shame, a person identifies himself with a wrong deed or failure, and thus experiences himself as morally bad or unfulfilled in achieving goals that are important to him [29].

Guilt is an emotion that is much more constructive to an individual's inner life and is considered more mature in relation to shame. First of all, the feeling of guilt is not experienced in the context of the overall self-esteem of the individual. Therefore, a bad act or failure in a specific action do not affect the global self-esteem of an individual, but some aspects of it, and enable constructive coping with this affective state. The feeling of guilt is therefore associated with the possibility of redress and improvement [30].

Pride is associated with the positive consequences of what you have done, which can be perceived objectively. Authentic pride derives from partial attributions of specific achievements or the achievement of goals, and often focuses on the efforts made to achieve that goal. It can be concluded that it is pride of an individual's own behavior [26].

On the other hand, hubris, like shame, is an emotion that manifests itself in global self-esteem. This means that a positive assessment of oneself affects the whole self of an individual, and the source of a given act is found in permanent and unchanging features related to an individual [25]. Such a pattern would be consistent with the link between pride and the tendency to global attribution of success [31]. A person under the influence of this emotion feels satisfied with himself, regardless of the objective quality of his own achievements. As such, it is recognized as a dysfunctional emotion that leads to cognitive distortions of oneself

Due to the fact that maintaining abstinence is a complex problem affecting the sphere of emotions and their regulation, and is also a specific value for addicts, self-conscious emotions seem to be a construct that is also related to abstinence. The authors studying the population of both healthy and addicted people noticed that both positive and negative self-conscious emotions are related to abstinence [32]. The frequency of their occurrence, as well as the level of severity, have specific implications for both active addiction and the recovery process.

In line with the conceptualization of these emotions, researchers have shown that genuine pride has a positive relationship with maintaining abstinence among addicts. Also, people who experience these emotions in the non-addicted population are less likely to engage in problem drinking [32]. The same researchers showed that people who were driven by hubris were less prone to change their self-image and modify their behavior. In the context of drinking, this was associated with clinging to a drinking strategy for emotional regulation. On the other hand, in the group of people who started abstinence after previous problem drinking, they showed a greater tendency to relapse [32].

Other authors have tried to see how negative self-conscious emotions are related to alcohol use [33]. It turned out that depending on the specific type of emotion, there is a separate strategy for using alcohol. Researchers have shown that the tendency to shame is linked to repetitive destructive patterns in alcohol use. This is because this emotion intensifies the experience of negative well-being, and alcohol becomes a strategy of reducing and relieving unpleasant affects. However, the same researchers noted that guilt can be a protective factor against problem drinking. The reason for this is partial attribution, which focuses the individual's attention on specific behaviors and the consequences that flow from them. It should be noted that the above-mentioned study concerned healthy people and referred directly to problematic drinking and indirectly to abstinence, which was not understood in the clinical context.

Aim

Hypotheses

The research presented below aims to show the relationship between metacognition, self-conscious emotions and abstinence and its motives. In addition, the study will check the intragroup difference among addicts in terms of the level of metacognition during abstinence and the level of self-conscious emotions experienced in the course of abstinence. In line with the research hypotheses, it was expected that:

1. There is a negative relationship between dysfunctional metacognitive beliefs about alcohol and abstinence time and motives.
2. The level of maladaptive meta-beliefs about alcohol is lower in subjects in complete remission than in subjects with early remission.
3. Self-conscious emotions have a positive relationship with time and the motives of abstinence.
4. The level of self-conscious emotions is higher in people in complete remission than in people with early remission.

Material

Participants and procedure

The research was conducted anonymously using the pen-and-paper method, as well as via the Internet. All persons were informed in the manual about the anonymity of the research and its scientific goals. The study was conducted in accordance with the Declaration of Helsinki. Everyone agreed to participate in the research. The study involved $n = 91$ people aged 22 to 80 years ($M_{age} = 46.68$; $SD_{age} = 12.41$), among whom $n_m = 53$ were men (58.2%), and $n_w = 38$ were women (41.8%).

These people were recruited in 24-hour drug rehabilitation centers from among people diagnosed with alcohol dependence as well as from Alcoholics Anonymous and other self-help groups. The mean age of the respondents when they started problem drinking was $M_{age} = 25.11$; $SD = 9.81$. According to the ICD-11 classification, two research subgroups were distinguished among the respondents: (1) people in early remission ($n_e = 41$) and (2) in full remission ($n_f = 50$).

Methods

Research tools

Reasons for Abstaining or Limiting Drinking (RALD)

Reasons for Abstaining or Limiting Drinking (RALD) [11] (Polish adaptation by Ślaski [34]) is a tool for measuring the motives of not drinking alcohol. This questionnaire consists of 10 questions on the motives for maintaining/reducing abstinence

[11]. It is made up of three scales that contribute to the motivation to not drink: "Loss of control" – Cronbach's $\alpha = 0.84$; "Adverse consequences" – Cronbach's $\alpha = 0.90$; "Convictions" – Cronbach's $\alpha = 0.54$. The value of individual answers ranges from 1 ("strongly disagree") to 6 ("strongly agree").

Metacognitive Beliefs about Alcohol Use (MPA)

Metacognitive Beliefs about Alcohol Use [18] (Polish adaptation by Ślaski [35]) is a tool for measuring maladaptive metacognitive beliefs about alcohol. The questionnaire consists of 18 questions. In them, the respondents indicated their metacognitive beliefs about alcohol. Two main factors have been distinguished in it; positive alcohol metacognitions (first two scales) and negative alcohol metacognitions (the next two scales):

(a) Positive metacognitive beliefs about emotional self-regulation (Cronbach's $\alpha = 0.91$);
(b) Positive metacognitive beliefs about cognitive self-regulation (Cronbach's $\alpha = 0.81$);
(c) Negative metacognitive beliefs about the lack of control (Cronbach's $\alpha = 0.82$);
(d) Negative metacognitive beliefs about alcohol-induced cognitive harm (Cronbach's $\alpha = 0.80$)

Moral Feelings Scale (MSF-5)

Moral Feelings Scale – version 5 [27] is a tool that measures certain inclinations to experience different feelings in a situation of transgression or the implementation of subjectively important moral principles [36]. In this study, the instruction was changed in such a way (with the consent of the author) that this important moral principle was to exceed or abstain from abstinence when the addiction relapsed. MSF-5 consists of Part A, which relates to the situation of failure to abstain from abstinence, and Part B, which measures feelings related to abstinence. The respondent responds to the questions on the scale of answers 0–6, where 0 means "never" and 6 means "always, every time."

MSF-5 on the A scale consists of 26 questions measuring 6 scales. This study focused on three scales that relate to self-conscious emotions. They are: "Shame scale" (Cronbach's $\alpha = 0.72$), "Global guilt scale" (Cronbach's $\alpha = 0.90$), "Repentance scale" (Cronbach's $\alpha = 0.80$).

MSF-5 in part B consists of 25 questions forming 5 scales. For the purposes of this study, three scales related to self-conscious emotions of interest to us were used. They are: "Hubris scale" (Cronbach's $\alpha = 0.91$), "Pride scale" (Cronbach's $\alpha = 0.90$), "Duty to principles scale" (Cronbach's $\alpha = 0.85$). The first of these measures dysfunctional hubris. The other two – functional sense of pride.

Statistical methods

The Shapiro-Wilk test was used to verify whether the analyzed variables were normally distributed. The test results turned out to be statistically significant for all analyzed variables. Due to the fact that the distribution of the analyzed variables differs from the normal distribution, the non-parametric Mann-Whitney *U* test was used to compare the level of variables in the specified groups. The analyses of the differences between the probability distributions were supplemented with the calculation of the effect size using the *r*-factor measure for the Mann-Whitney *U* test. Due to the fact that the variables analyzed in our study differ in the normal distribution, the non-parametric Kendall's tau-b coefficient was used in the correlation studies.

Results

Metacognition and abstinence

There are significant (all at the $p < 0.05$ level) relationships between maladaptive metacognitive beliefs and the time and motives of abstinence (Table 1).

Table 1. **Kendall's tau-b correlation between metacognitive beliefs about alcohol and the time and motives of abstinence (N = 91)**

Scale	Time of abstinence	Loss of control	Adverse consequences	Convictions
PP-RE	-0. 28*	-0.08	-0.05	-0.16*
PP-RP	-0. 25*	-0.09	-0.04	-0.11
NP-BK	-0. 32*	-0.19*	-0.16*	-0.10
NP-SZP	-0. 27*	-0.17*	-0.17*	-0.12

* p <0.05 (one-tailed). PP-RE – positive metacognitive beliefs about emotional self-regulation; PP-RP – positive metacognitive beliefs about cognitive self-regulation; NP-BK – negative metacognitive beliefs about the lack of control; NP-SZP – negative metacognitive beliefs about cognitive damage.

The Mann-Whitney *U* test was used to test the hypothesis about a significantly higher level of maladaptive beliefs in people in early remission compared to those who have already achieved full remission (Table 2).

Table 2. **The results of the Mann-Whitney U test for metacognitive beliefs in both groups N = 91**

Scale	Average rank – group in early remission	Average rank – group in full remission	Mann-Whitney U	Z	Effect size	Significance
PP-RE	55.45	38.25	637.50	-3.09	0.32	0.02
PP-RP	56.83	37.20	581.00	-3.57	0.37	0.001

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NP-BK	60.23	34.33	441.50	-4.76	0.50	0.001
NP-SZP	55.83	37.94	622.00	-3.29	0.34	0.001
PP-RE – positive metacognitive beliefs about emotional self-regulation; PP-RP – positive metacognitive beliefs about cognitive self-regulation; NP-BK – negative metacognitive beliefs about the lack of control; NP-SZP – negative metacognitive beliefs about cognitive damage						

Self-conscious emotions and abstinence

There are significant relationships between the level of self-conscious emotions and the time and individual motives of abstinence (Table 3).

Table 3: **Kendall's tau-b correlation between dimensions of self-conscious feelings and motives of abstinence (N = 91)**

Scale	Time of abstinence	Loss of control	Adverse consequences	Convictions
Shame	0.11	0.18**	0.14*	0.06
Overall feeling of guilt	0.04	0.13*	0.06	-0.06
Feeling of remorse	0.24**	0.25**	0.18**	0.13*
Hubris	0.11	0.15*	0.17*	0.10
Pride	0.21**	0.35**	0.32**	0.16*
Duty to the rules	0.28**	0.37**	0.36**	0.19*
* p <0.05 (one-tailed); ** p <0.01 (one-tailed)				

The Mann-Whitney *U* test was used to test the hypothesis of a significantly higher level of self-conscious emotions in people in full remission compared to those who have not yet achieved full remission (Table 4).

Table 4: **Mann-Whitney U test results for self-conscious emotions in both groups N = 91**

Scale/variable	Average rank (early remission)	Average rank (full remission)	Mann-Whitney U	Z	Effect size	Significance
Shame	41.56	49.64	843.00	-1.45	0.15	0.14
Overall feeling of guilt	44.48	47.25	962.50	-0.50	0.05	0.61
Feeling of remorse	36.66	53.66	642.00	-3.06	0.32	0.002
Hubris	42.01	49.27	861.50	-1.30	0.13	0.19
Pride	39.04	51.71	739.50	-2.28	0.23	0.02
Duty to the rules	36.29	53.96	627.00	-3.18	0.33	0.001

Discussion of the results

In this research, an attempt was made to show that the low level of maladaptive metacognitions, and thus their greater adaptability, is an important factor in the recovery from addiction. The performed correlation studies fully confirmed the assumed hypothesis. This means that, in accordance with the results of the research to date [23], the lower the level of maladaptive metacognition, the more we can talk about a potentially longer period of abstinence. Hence, a predictive conclusion can be drawn that the more metacognitive beliefs become adaptive, the more they constitute a factor that maintains abstinence and constitutes a prophylaxis of relapses in alcohol dependence.

In this study it was checked whether maladaptive metacognition is negatively associated with the motives of abstinence and what significance it has in the context of the recovery process. The results of the study partially confirmed the assumed hypothesis. There are no unequivocal studies in the literature that would show the relationship between metacognition and the motives of abstinence, hence it can be concluded that these results are a novelty in this matter.

It was shown that both dimensions of negative metacognitions are negatively related to the motives of loss of control and adverse consequences. This means that probably with the reduction of dysfunctional negative beliefs, addicts increasingly notice the lack of control over their drinking and gain a better ability to properly perceive and assess the negative effects of drinking (impact on cognitive-emotional processes) [37].

An interesting fact is the lack of significant relationships between positive metacognitions and the abstinence motives discussed above. Perhaps this is due to the fact that the structure of these beliefs presupposes a sense of control and self-efficacy, and even their low level does not make the addicted person abstinent due to the lack of control and negative consequences.

The final motive for abstinence that is the subject of this study is beliefs. The results showed only a negative weak association with positive metacognitive beliefs about emotional self-regulation. According to the results of studies by other authors, it has been shown that with the reduction of this type of metabeliefs, addicts begin to regulate their emotional state in a different way [19]. Perhaps, along with learning new strategies for emotional self-regulation, there is some re-evaluation in the motivational sphere.

In order to check when and if there is actually an improvement in the level of dysfunctional metabeliefs in people maintaining abstinence, two groups were compared: people in early remission (less than 12 months) and those in full remission (more than 12 months). This division was dictated by the fact that it is within the first year after stopping drinking that most people return to active addiction [38]. It turned out, in line with hypothesis 2, that there are indeed significant differences in the level of maladaptive metacognitions in favor of the group in full remission. Similar results were obtained in other studies [23]. It is likely that patients who learned to cope with mental distress without alcohol with the intervention of therapeutic programs and self-help groups changed some of their beliefs about alcohol consumption.

Another goal of this study was to verify the hypotheses about the positive relationship between conscious emotions and time and the motives of abstinence. Hypothesis 4 was partially confirmed. According to the results of research by other authors, it is assumed that genuine pride is related to maintaining abstinence, while the experienced hubris may favor abstinence at the beginning of its duration, and then it may be a predictor of relapse to addiction [32] There are also divergent studies showing that arousing negative self-conscious emotions such as shame and guilt have a different effect on the strategy of supporting abstinence in addicts [39, 40].

This study showed that only adaptive self-conscious emotions, i.e., guilt (measured with the scale of remorse) and pride (measured with the scale of pride and duty to principles) significantly positively correlate with the time of abstinence. This is a partial confirmation of the above-mentioned studies. This means that the functional and mature self-conscious emotions (even negative ones) that the addicted person begins to experience while maintaining abstinence may be helpful in the further recovery process [32].

The next point of the analyses was the verification of the hypothesis about the positive relationship between self-conscious emotions and the motives of abstinence, which was partially confirmed. In the literature, we do not find unequivocal research on the relationship between self-conscious emotions and the motives of abstinence. So far, the authors of studies on abstinence have related self-conscious emotions to drinking motives [33]. Hence, it will not be easy to relate the results of this research to other research works.

By analyzing the correlation, it was shown that all self-conscious emotions correlate positively with the motive of losing control. This means that insight into their own emotions probably allows addicts to accept that they will irreversibly lose their ability to drink under control. It has been shown that functional emotions (guilt, pride) have the strongest positive relationship with this motif, and thus they can serve to maintain this motivation in the long run. Shame and hubris are probably related to this motif at the beginning of a sober life [32]. By contrast, the functional emotions of guilt and pride are likely to be more pronounced in the later stages of recovery.

It was then shown that all self-conscious emotions except shame were positively associated with the theme of adverse consequences. Addiction causes a lot of damage to human mental functioning. Hence, it causes very strong, sometimes destructive emotions in him. Their extreme intensity (according to the metacognitive model) simultaneously closes the possibility of a deeper insight into oneself and the actual perception of objective adverse consequences.

The least significant relationships were shown by the analysis of the correlation between self-conscious emotions and the motive of beliefs. Here, only functional self-conscious emotions had a positive relationship, additionally it was a very weak relationship (not exceeding, 0.16). This means that people who are driven by these emotions are to a small extent motivated by beliefs that do not directly relate to the negative aspects of drinking.

The last part of the analysis was to check whether the average level of self-conscious emotions differs between the distinguished groups of people in terms of the duration of abstinence. The analyses partially confirmed the hypothesis. It has been shown that the group of people in full remission is characterized by a significantly higher average level of emotions of guilt and pride in relation to people in early remission. This means that in the long run, i.e., over one year, functional self-conscious emotions begin to play a key role in maintaining abstinence. This result would be consistent with the results of other studies [32]. Nevertheless, one should remember that this conclusion is only partially valid, because there were no longitudinal studies conducted and we do not know the level of self-conscious emotions at the beginning of therapy.

Summing up, we can say that both metacognition and self-conscious emotions are related to maintaining abstinence. In the perspective of further research on abstinence, it would be worth trying to develop a metacognitive model of recovery from addiction. It is also possible to focus on the role of arousing self-conscious emotions (especially functional ones) in therapeutic programs and shaping the skills of proper insight into this sphere of the patient's emotional life.

Limitations and prospect of further research

There were some limitations to this study. The RALD tool – measuring the three-factor model – was characterized by an insufficient reliability index on the scale measuring the belief motive. Perhaps in the study of the motives of abstinence not directly related to drinking for groups of addicts, another more reliable tool should be used. Another limitation is taking into account only maladaptive metacognitive beliefs about alcohol, while no attempt was made to examine the type and level of adaptive metacognitive beliefs, especially in the group of people who have been abstinent for a long time. Another limitation of this study is the fact that only the differences in the level of explanatory variables in different people were studied. Probably more representative results would be shown by longitudinal studies if it was possible to measure the level of metacognition and self-conscious emotions in the same people at the beginning of the recovery path and after longer abstinence. Then we could also highlight how these variables affect abstinence motives over time.

In the perspective of further research on abstinence, it would be worth trying to develop a metacognitive model of recovery from addiction in a metacognitive perspective. Currently, there is no systematic model of recovery based on this paradigm. Due to the fact that the reduction of maladaptive metacognitions is positively associated with abstinence, it is worth checking whether there are types of adaptive metabeliefs about alcohol and how they affect abstinence.

References

1. Bętkowska-Korpała B. *Osobowościowe uwarunkowania dynamiki zdrowienia u osób uzależnionych od alkoholu*. Krakow: Medycyna Praktyczna Publishing House; 2013.
2. Schlaff G, Walter H, Lesch OM. *The Lesch alcoholism typology – Psychiatric and psychosocial treatment approaches*. Ann. Gastroenterol. 2011; 24(2): 89–97.
3. Chodkiewicz J. *Odbić się od dna? Rola jakości życia w przebiegu i efektach terapii osób uzależnionych od alkoholu*. Lodz: University of Lodz Press; 2012.
4. Jakubczyk A, Wojnar M. *Całkowita abstynencja czy redukcja szkód – różne strategie terapii uzależnienia w świetle badań i międzynarodowych zaleceń*. Psychiatr. Pol. 2012; 46(3): 374–385.
5. World Health Organization. *ICD-11, the 11th Revision of the International Classification of Diseases*. 2020. https://icd.who.int/en (retrieved: 13.05.2022).
6. Szczyrba B, Trzcieniecka-Green A. *Motywy podjęcia, kontynuowania i ukończenia terapii u kobiet uzależnionych od alkoholu, w oddziale terapii uzależnienia od alkoholu*. Alkohol. Narkom. 2004; 17(3–4): 221–233.
7. Rowicka M. *Differences and similarities in motives to decrease drinking, and to drink in general between former and current heavy drinkers – Implications for changing own drinking behaviour*. Front. Psychol. 2022; 12: 734350.
8. De Micheli D, Formigoni MLOS. *Are reasons for the first use of drugs and family circumstances predictors of future use patterns?* Addict. Behav. 2002; 27(1): 87–100.
9. Merrill JE, Read JP. *Motivational pathways to unique types of alcohol consequences*. Psychol. Addict. Behav. 2010; 24(4): 705–711.
10. Nagoshi CT, Nakata T, Sasano K, Wood MD. *Alcohol norms, expectancies, and reasons for drinking and alcohol use in a U.S. versus a Japanese college sample*. Alcohol. Clin. Exp. Res. 1994; 18(3): 671–678.
11. Epler AJ, Sher KJ, Piasecki TM. *Reasons for abstaining or limiting drinking: A developmental perspective*. Psychol. Addict. Behav. 2009; 23(3): 428–442.
12. Beck JS. *Terapia poznawczo-behawioralna*. Krakow: Jagiellonian University Press; 2012.
13. Berking M, Margraf M, Ebert D, Wupperman P, Hofmann SG, Junghanns K. *Deficits in emotion-regulation skills predict alcohol use during and after cognitive-behavioral therapy for alcohol depedence*. J. Consult. Clin. Psychol. 2011; 79(3): 307–318.
14. Koriat A. *Metacognition and consiousness*. In: Zelazo PD, Moscovitch M, Thompson E, editors. *Cambridge handbook of conciousness*. New York: Cambridge University Press; 2007. P. 289–325.
15. Wells A, Matthews G. *Attention and emotion: A clinical perspective*. Hillside: Hove Erlbaum; 1994.
16. Wells A. *Emotional disorders and metacognition: Innovative cognitive therapy*. Chichester: Wiley; 2000.
17. Wells A, King P. *Metacognitive therapy for generalized anxiety disorder: An open trial*. J. Behav. Ther. Exp. Psychiatry 2006; 37(3): 206–212.
18. Spada MM, Wells A. *Metacognitive beliefs about alcohol use: Development and validation of two self-report scales*. Addict. Behav. 2008; 33(4): 515–527.
19. Matthews G. *Advancing the theory and practice of metacognitive therapy: A commentary on the special issue*. Cognit. Ther. Res. 2015; 39: 81–87.

20. Spada MM, Caselli G, Nikčević AV, Wells A. *Metacognition in addictive behaviors*. Addict. Behav. 2014; 44: 9–15.
21. Spada MM, Wells A. *A metacognitive model of problem drinking*. Clin. Psychol. Psychother. 2009; 16(5): 383–393.
22. Dragan M. *Difficulties in emotion regulation and problem drinking in young women: The mediating effect of metacognitions about alcohol use*. Addict. Behav. 2015; 48: 30–35.
23. Ottonello M, Fabiane E, Pistarini C, Spigno P, Torselli E. *Difficulties in emotion regulation during rehabilitation for alcohol addiction: Correlations with metacognitive beliefs about alcohol use and relapse risk*. Neuropsychiatr. Dis. Treat. 2019; 15: 2917–2925.
24. Halvorsen M, Hagen R, Hjemdal O, Eriksen MS, Sørli ÅJ, Waterloo K et al. *Metacognitions and thought control strategies in unipolar major depression: A comparison of currently depressed, previously depressed, and never-depressed individuals*. Cogn. Ther. Res. 2015; 39: 31–40.
25. Lewis M. *Emocje samoświadomościowe: zażenowanie, duma, wstyd, poczucie winy*. In: Lewis M, Haviland-Jones JM, editors. *Psychologia emocji*. Gdansk: Gdansk Psychological Publishing House; 2005. P. 780–797.
26. Tracy JL, Robins RW. *Putting the self into self-conscious emotions: A theoretical model*. Psychol. Inq. 2004; 15(2): 103–125.
27. Strus W, Żylicz PO. *Emocje samoświadomościowe – podstawowe rozróżnienia i narzędzia pomiaru*. In: Gasiul H, editor. *Metody badania emocji i motywacji*. Warsaw: Difin; 2018. P. 80–109.
28. Tangney JP, Dearing RL. *Shame and guilt*. New York–London: Guilford Press; 2002.
29. Feiring C, Taska L, Lewis M. *Adjustment following sexual abuse discovery: The role of shame and attributional style*. Dev. Psychol. 2002; 38(1): 79–92.
30. Barrett KC. *A functionalist approach to shame and guilt*. In: Tangney JP, Fischer KW, editors. *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride*. New York: Guilford Press; 1995. P. 25–63.
31. Tracy JL, Robins RW. *The psychological structure of pride: A tale of two facets*. J. Pers. Soc. Psychol. 2007; 92(3): 506–525.
32. Dunlop WL, Tracy JL. *The autobiography of addiction: Autobiographical reasoning and psychological adjustment in abstinent alcoholics*. Memory 2013; 21(1): 64–68.
33. Treeby M, Bruno R. *Shame and guilt-proneness: Divergent implications for problematic alcohol use and drinking to cope with anxiety and depression symptomatology*. Pers. Individ. Differ. 2012; 53(5): 613–617.
34. Ślaski S. *RALD (Reasons for Abstaining or Limiting Drinking)*. Polish adaptation of a tool for measuring motives for not drinking, unpublished manuscript. 2017.
35. Ślaski S. *Metacognitive Beliefs about Alcohol Use*. Polish adaptation of a tool for measuring maladaptive metacognitive beliefs about alcohol, unpublished manuscript. 2017.
36. Strus W. *Dojrzałość emocjonalna a funkcjonowanie moralne*. Warsaw: Liberi Libri; 2012.
37. Cierpiałkowska L, Chodkiewicz J. *Uzależnienie od alkoholu. Oblicza problemu*. Warsaw: Polish Scientific Publishers PWN; 2020.
38. Moyer A, Finney JW. *Outcomes for untreated individuals involved in randomized trials of alcohol treatment*. J. Subst. Abuse Treat. 2002; 23(3): 247–252.
39. Dearing RL, Stuewig J, Tangney JP. *On the importance of distinguishing shame from guilt: Relations to problematic alcohol and drug use*. Addict. Behav. 2005; 30(7): 1392–1404.

40. Modrzyński R. *Abstynencja czy ograniczanie picia? Znaczenie zasobów w przewidywaniu abstynencji osób uzależnionych od alkoholu we wczesnej fazie zdrowienia*. Warsaw: Difin; 2017.

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