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Emotional conscience in individuals with affective disorders

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Summary

Aim. The aim of the study was to analyse the functioning of emotional conscience in individuals with mood disorders, taking into account the differences between patients with recurrent depression and patients with bipolar disorder. The dependence of the susceptibility to experiencing particular moral feelings on the symptoms of the illness – both on their type and severity – was also a subject of consideration.

Material and method. Results from 131 subjects were analysed, including 44 patients with bipolar disorder, 33 patients with recurrent depression and 54 individuals without a diagnosis of mental disorders. More women (67%) than men (33%) took part in the study, the average age of the respondents was 43 years. The following research methods were used: the *Hamilton Depression Rating Scale* (HAM-D), the *Young Mania Rating Scale* (YMRS) and the *Moral Feelings Scale* (SUM-5).

Results. Statistically significant differences were observed between the examined groups in the functioning of emotional conscience assessed using the SUM-5. Patients with mood disorders described themselves as experiencing some of the distinguished moral emotions with different susceptibility than healthy individuals. Similarly, different experiencing of these types of feelings was noticed in groups of patients with recurrent depression and bipolar disorder. The dependence of the functioning of their emotional conscience on the type and severity of experienced symptoms, assessed on the HAM-D and YMRS scales, was also noted.

Conclusions. The emotional conscience of people with mood disorders may have specific features, that are less pronounced in healthy subjects. Taking this into account seems to be an important aspect of understanding patients, helpful when building a healing relationship with them.

Key words: bipolar disorder, recurrent depression, emotional conscience

Introduction

The issue of the morality of people struggling with mental difficulties is extremely delicate and it is associated with the risk of judgment and stigmatisation. This is particularly noticeable within Western culture, where following socially established rules is identified with maturity, health and common sense [1]. There is therefore a danger of perceiving people with mental illness as inherently less moral and having greater difficulties in respecting values than the average healthy person. It is worth noting that the topic of moral functioning, including the development of moral emotions in psychiatric patients, is rarely addressed in the literature, unsystematised and described rather selectively.

The study presented in this paper aimed to present moral functioning, and specifically moral feelings, in people diagnosed with bipolar disorder (BD) or major depressive disorder (MDD). Moral feelings – otherwise known as emotional conscience – are those experienced in circumstances related with adherence to or violation of norms associated with 'good' or 'evil' Various authors [2–4] propose distinguishing certain categories of moral feelings, incorporating particular types of emotional responses. Haidt [2] distinguished four 'families' of moral emotions – two large and two smaller. The first of the large families is the 'other-condemning emotions' group, which includes anger, disgust and contempt, and the second – the 'self-conscious emotions' group, which includes shame, embarrassment and guilt. Haidt called the first of the smaller groups the 'other-suffering emotions' family, in which he distinguished compassion, and the second – the 'other-praising emotions' family, where among others, gratitude was to be found. A very important criterion for dividing moral feelings into individual groups is also the degree of their maturity. Emotional maturity is believed to be one of the conditions necessary for moral consciousness to be able to perform a regulatory function in relation to a person's behaviour [5]. Depending on the level of moral development, an individual will tend to react in a specific, characteristic way [4].

The most basic moral feelings include fear of punishment – the experience of which does not require an internalised value system [6]. Later in life, appears the ability to experience shame and a generalised sense of guilt, which is associated with a more developed self-awareness and the initial formation of the concept of 'self'. The feeling of guilt is considered a more mature emotion than shame, because it is additionally associated with a deeper internalisation of moral principles [7]. When an individual gains the ability to differentiate between who he/she is as a person from the behaviours he/she undertakes, it becomes possible for him/her to experience a less generalised sense of guilt (also called the feeling of remorse), limited to specific actions and situations, and not having a destructive impact on his/her self-image [8].

The above-mentioned feelings are aroused in situations in which the individual goes beyond the principle in his/her behaviour – either external, recognised as important by other people, or internalised – which are of significant importance to him/herself. As already noted, another category of circumstances related to the sense of morality, also causing a clear emotional response, are situations in which a person acts in accordance with the rules and realises values that are important to him/her [4, 9]. In the

development of moral feelings experienced by people as a result of compliance with norms, four different categories of them have been distinguished [9]. The most primary emotions were considered to be those resulting from the frustration of an individual who is faced with the need to act in accordance with the value system imposed on him/her – these feelings have a clearly negative valence (e.g. dissatisfaction, anger or irritation). Then, in development, there comes the ability to experience feelings that are important for maintaining positive self-esteem (e.g. a sense of satisfaction, pride) and those that suggest that the subject focuses on particular norms rather on the self, one's achievements or merits (e.g. sense of duty fulfilled). This last distinction can, to some extent, be considered as one corresponding to another division adopted by numerous authors who distinguish pride in oneself from pride in one's own behaviour [7, 8]. Being proud of one's behaviour is considered an adaptive feeling and supporting a pro-social attitude, while pride in oneself is a feeling close to haughtiness, largely maladaptive, which may adversely affect a person's functioning in relationships with others [7, 8].

The source literature contains reports describing the functioning of some aspects of emotional conscience (selected moral feelings) among people struggling with affective disorders. One such study – involving bipolar disorder patients in a depressive episode – was conducted by Kathryn Fletcher's team [10]. The subjects reported that as a result of becoming aware of their own behaviours they had engaged in during hypomania (e.g. alcohol abuse, reckless driving or accidental sexual contact) and their negative consequences, they began to experience severe feelings of guilt and shame. In contrast, they did not have these types of experiences at the time they chose to engage in these activities. Therefore, the emotional state of the subjects, and their ability to introspect and look at themselves critically, changed along with the change in the symptoms of the disease. Highfield et al. [11] described interesting study on the experience of guilt and shame in patients with BD and MDD. In both groups, a higher tendency to experience shame than among healthy individuals was observed, with this tendency being most pronounced in subjects with recurrent depression. Interestingly, people with bipolar disorder had the lowest susceptibility to experiencing guilt. Other reports also describe a positive correlation between the personality tendency to experience haughtiness, pride and being dominant in relationships with others and the risk of a manic episode, assessed using a scale measuring the subclinical manifestation of manic symptoms [12–14].

When it comes to studies that assessed the susceptibility to experiencing particular moral emotions exclusively in a group of patients with recurrent depression, the focus was mainly on feelings related to hostility or anger experienced towards other people or towards oneself. For example, Zahn et al. [15, 16] observed that people diagnosed with MDD, even when they are in remission, have an increased tendency to direct these types of feelings (e.g. contempt, self-accusation, self-blame) against themselves and a decreased tendency to direct them towards others. In an international study conducted by representatives of the World Health Organisation, it turned out that the feeling of being guilty, not good enough, inadequate, and worthless is a symptom consistently reported by respondents, regardless of their cultural background [17]. However, some studies indicate a high variability in susceptibility to experiencing global guilt depend-

ing on the country of origin of the respondents [18–25]. The conclusions presented in the literature are therefore inconsistent and do not provide unambiguous answers.

According to our knowledge and a review of previous reports on the relationship between emotional conscience and affective illness, there is a lack of research on the importance of moral feelings in BD and MDD. Therefore, the aim of the study described here is to analyse the functioning of emotional conscience in people with mood disorders, taking into account the differences in this area between patients with MDD and patients with BD. The subject of consideration is also the relationship between the susceptibility to experiencing particular moral feelings and the symptoms of the disease – both their type and severity.

Material and method

The research was conducted with the approval of the Bioethics Committee of the Jagiellonian University in Krakow. A total of 131 people took part in the study, including 44 patients diagnosed with BD, 33 patients diagnosed with MDD and people without a diagnosis of mental disorders. Within the group of patients with MDD, 18 were diagnosed with a depressive episode and 15 were diagnosed with a state of remission. Among the bipolar patients, 13 were diagnosed with a depressive episode, 16 with a hypomanic episode and 15 with a state of symptomatic remission. The subjects ranged in age from 19 to 78, with an average age of 43. The study involved more women (67%) than men (33%). Due to ethical and substantive contraindications, people with significant intensification of manic symptoms or deep depression were not included in the study. Both clinical groups included patients treated at the Affective Disorders Subunit of the Psychiatric Clinical Department for Adults, Children and Youth or at the Psychiatry Outpatient Department for Adults of the University Hospital in Krakow. They were qualified for the study by psychiatrists working in the aforementioned facility and by the person conducting the study. Patients were selected into specific subgroups (distinguished by their episode of the disease) based on the results they obtained on scales measuring the severity of symptoms. The control group consisted of people who had never been diagnosed with a mental disorder. They expressed their willingness to participate in the study by responding to an advertisement placed on the Internet. All respondents were recruited in the years 2015–2019.

The *Hamilton Rating Scale for Depression* (HAM-D) was used to assess the severity of depressive symptoms [26]. The examined subjects were included in the group of depressive patients when they obtained at least 8 points on the mentioned scale [27]. The severity of manic symptoms was assessed using the *Young Rating Scale for Mania* (YMRS) [28]. The threshold for determining the presence of manic symptoms – and thus for classifying the examined person to a group of people with manic symptoms – was considered to be 12 points [28]. People diagnosed with MDD or BD who did not meet the criteria for depression or mania at the time of the examination were included in the subgroups of subjects in symptomatic remission.

To assess the respondents' tendency to experience particular moral emotions, the *Moral Feelings Scale* by Strus [9] in its latest, fifth version (SUM-5) was used. SUM-5

is divided into two parts: A and B, where part A concerns emotions arising as a result of breaking the rules, and part B – emotional reactions to acting in accordance with them. The respondent, on a scale from 0 ("never") to 6 ("always"), assesses the frequency with which he/she experiences particular emotions when he/she follows or does not follow moral principles that are important to him/her. He/she makes this assessment with reference to situations recalled in his/her memory in which he/she actually participated. Based on the obtained answers, the respondents' susceptibility to experiencing various emotional states is assessed. This includes, among others: global sense of guilt, sense of remorse, fear of punishment in response to breaking the rules, or: negative feelings, positive feelings and obligation to the rules in response to acting in accordance with the rules.

Results

Elements of descriptive statistics were used in the analysis. The results were presented as mean values (*M*), percentages (%), standard deviations (*SD*), and minimum and maximum scores. The normality of the distribution of the analysed variables was checked using the Shapiro-Wilk test. In order to compare continuous variables for two groups, the Student's *t*-test was used, and if the assumptions regarding the normality of the distribution of the analysed variables were not met, the Mann-Whitney test was used. In order to compare continuous variables for the three groups, a one-way ANOVA was selected, and if the assumptions regarding the normality of the distribution of the analysed variables were not met, the Kruskal-Wallis test was selected. Statistical analysis was performed using the Statistica 13 PL software by StatSoft. All statistical hypotheses were verified at the significance level of $\alpha = 0.05$.

Comparison of three groups: patients with BD, patients with MDD and healthy subjects in terms of susceptibility to experiencing particular moral emotions

The analysis showed that the score on the "Negative feelings" subscale (from part B of the SUM-5) was significantly lower in the control group compared to the group of subjects with bipolar disorder. No significant differences were observed for the remaining moral emotions. They were also not detected when comparing both groups of patients (with BD and MDD) and the group of people with MDD with healthy subjects. The obtained results are presented in Table 1.

Table 1. **Characteristics of SUM-5 results in individual study groups**

Variables	Groups						
	Control (1)	Recurrent depression (2)	Bipolar disorder (3)	*df*	*F*	*p*-value	Post-hoc
A – Positive feelings[1]	7.70 (5.94)	7.00 (4.79)	9.91 (6.49)	2	2.73	0.068	
A – Externalizing feelings[1]	6.76 (3.72)	7.67 (3.45)	7.41 (4.19)	2	0.67	0.513	

table continued on the next page

A – Fear of punishment[1]	15.63 (4.64)	15.33 (4.11)	15.80 (5.56)	2	0.86	0.917	
A – Shame[1]	14.22 (4.70)	14.27 (3.91)	13.59 (5.40)	2	0.27	0.762	
A – Global guilt[1]	21.11 (7.62)	23.82 (6.97)	23.27 (8.45)	2	1.56	0.214	
A – Sense of remorse[1]	16.93 (4.25)	17.88 (3.78)	17.89 (4.25)	2	0.85	0.429	
B – Negative feelings[1]	6.91 (6.37)	7.45 (5.86)	10.70 (7.84)	2	4.16	<0.05	1 < 3
B – Hope for a reward[1]	16.54 (7.04)	13.36 (6.32)	16.07 (7.60)	2	2.22	0.112	
B – Haughtiness[1]	9.06 (7.42)	7.64 (7.21)	9.41 (7.07)	2	0.61	0.542	
B – Positive feelings[1]	20.35 (7.78)	19.12 (6.04)	19.82 (6.57)	2	0.32	0.726	
B – Duty to principles[1]	19.89 (6.50)	21.79 (4.01)	20.36 (5.36)	2	1.21	0.301	

[1]*M* – mean (*SD* – standard deviation).

A – part "A" of the scale; B – part "B" of the scale

Comparison of three subgroups of bipolar patients: in an episode of depression, in an episode of hypomania and in euthymia in terms of susceptibility to experiencing particular moral emotions

The analysis showed that the score on the "Positive feelings" subscale from part A of the SUM-5 scale was significantly lower in subjects diagnosed with bipolar disorder who reported symptoms of depression compared to those who reported symptoms of hypomania. No significant differences were observed in the remaining moral emotions. Similarly, no differences in the functioning of emotional conscience were found between people with hypomania and people with euthymia, or between people with depression and people with euthymia. The obtained results are presented in Table 2.

Table 2. **Characteristics of SUM-5 results in individual subgroups of patients with bipolar disorder**

Variables	**Groups**						
	Remission (1)	**Depression (2)**	**Hypomania (3)**	***df***	***F***	***p*-value**	**Post-hoc**
A – Positive feelings[1]	**10.27 (4.76)**	**6.38 (5.78)**	**12.44 (7.42)**	**2**	**3.38**	**<0.05**	**2<3**
A – Externalizing feelings[1]	7.13 (2.85)	6.69 (5.02)	8.25 (4.61)	2	0.73	0.591	
A – Fear of punishment[1]	13.67 (5.81)	16.92 (3.93)	16.88 (6.14)	2	1.39	0.191	

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A – Shame[1]	12.73 (4.89)	12.85 (3.93)	15.00 (6.57)	2	0.62	0.434	
A – Global guilt[1]	20.73 (7.51)	25.31 (7.58)	24.00 (9.79)	2	0.74	0.336	
A – Sense of remorse[1]	16.53 (2.97)	19.08 (3.71)	18.19 (5.42)	2	1.21	0.275	
B – Negative feelings[1]	15.87 (5.57)	18.15 (8.00)	14.56 (8.90)	2	1.66	0.349	
B – Hope for a reward[1]	9.33 (6.85)	9.46 (8.01)	13.00 (8.51)	2	1.23	0.455	
B – Haughtiness[1]	10.13 (5.64)	7.54 (7.84)	10.25 (7.74)	2	0.69	0.534	
B – Positive feelings[1]	18.40 (5.54)	19.38 (9.20)	21.50 (4.73)	2	0.99	0.415	
B – Duty to principles[1]	10.27 (4.76)	20.15 (5.40)	21.88 (5.00)	2	1.72	0.314	

[1]*M* – mean (*SD* – standard deviation).

A – part "A" of the scale; B – part "B" of the scale

Comparison of two subgroups: patients with BD in remission and patients with MDD in remission in terms of susceptibility to experiencing particular moral emotions

As a result of the analysis, it was observed that subjects diagnosed with MDD obtained significantly more points in the "Sense of remorse" subscale (from part A of the SUM-5) than subjects diagnosed with BD. It was also shown that patients with MDD scored significantly higher on the "Duty to principles" subscale (part B of the SUM-5). No significant differences were observed in the remaining moral emotions. The results are presented in Table 3.

Table 3. **Characteristics of SUM-5 results in groups of patients in remission**

Variables	**Groups**				
	Remission in MDD	**Remission in BD**	***df***	***T***	***p*-value**
A – Positive feelings[1]	6.67 (5.01)	10.27 (4.76)	28	2.01	0.053
A – Externalizing feelings[1]	8.60 (4.26)	7.13 (2.85)	28	–1.11	0.277
A – Fear of punishment[1]	14.33 (3.79)	13.67 (5.81)	28	–0.37	0.713
A –Shame[1]	14.20 (4.43)	12.73 (4.89)	28	–0.86	0.397
A – Global guilt[1]	23.00 (7.40)	20.73 (7.50)	28	–0.83	0.412
A – Sense of remorse[1]	18.93 (3.15)	16.53 (2.97)	28	**–**2.14	<0.05

table continued on the next page

B – Negative feelings[1]	7.13 (6.33)	9.33 (6.85)	28	0.91	0.369
B – Hope for a reward[1]	12.53 (7.16)	15.87 (5.57)	28	1.42	0.166
B – Haughtiness[1]	8.47 (8.37)	10.13 (5.64)	28	0.64	0.528
B – Positive feelings[1]	20.73 (6.01)	18.40 (5.54)	28	–1.11	0.278
B – Duty to principles[1]	23.13 (3.83)	18.93 (5.61)	28	–2.39	<0.05

[1]*M* – mean (*SD* – standard deviation).

A – part "A" of the scale; B – part "B" of the scale

Analysis of the relationship between the severity of depressive symptoms and susceptibility to experiencing particular moral emotions

In order to determine the above-mentioned relationship, a correlation analysis was conducted between the severity of depressive symptoms, assessed using the *Hamilton Depression Rating Scale* (HAM-D), and the results obtained by the respondents on the particular SUM-5 subscales. It was shown that there is a positive association between the reported severity of depressive symptoms and the score on the "Fear of punishment*"* subscale (part A of the SUM-5) in the group of patients diagnosed with MDD ($r = 0.383$), a negative relationship between the severity of depression and the results on the "Positive feelings" subscale (part A of the SUM-5) in the BD group ($r = – 0.317$) and a negative relationship between the severity of depression and the results on the "Positive feelings" subscale (part A of the SUM-5) in the entire study group ($r = – 0.227$). In terms of other moral emotions, no significant correlations were observed. The obtained results are presented in Table 4.

Table 4. **The relationship between the severity of depressive symptoms (HAM-D) and the results on the SUM-5 subscales**

Variables	**HAM –D**		
	Recurrent depression	**Bipolar disorder**	**Entire group**
A – Positive feelings	0.059	**–0.317***	**–0.227***
A – Externalizing feelings	–0.225	–0.141	–0.149
A – Fear of punishment	**0.383***	0.096	0.177
A –Shame	0.040	–0.054	0.012
A – Global guilt	0.173	0.204	0.185
A – Sense of remorse	–0.109	0.143	0.023
B – Negative feelings	0.042	0.006	–0.064
B – Hope for a reward	0.054	0.076	–0.010

table continued on the next page

B – Haughtiness	–0.088	–0.121	–0.141
B – Positive feelings	–0.203	–0.136	–0.174
B – Duty to principles	–0.252	0.076	–0.002

[1]*M* – mean (*SD* – standard deviation).

A– part "A" of the scale; B – part "B" of the scale

Analysis of the relationship between the severity of manic symptoms and susceptibility to experiencing particular moral emotions

A correlation analysis was conducted to examine the relationship between the perceived severity of manic symptoms, assessed using the *Young Mania Rating Scale* (YMRS), and the results obtained on particular SUM-5 subscales. A positive correlation was observed between the severity of manic symptoms and the score on the "Positive feelings" subscale (part A of the SUM-5) ($r = 0.314$). The results are presented in Table 5.

Table 5. **The relationship between the severity of manic symptoms (YMRS) and the results on the SUM-5 subscales**

Variables	**YMRS**
A – Positive feelings	**0.314***
A – Externalising feelings	0.157
A – Fear of punishment	0.173
A – Shame	0.175
A – Global guilt	0.100
A – Sense of remorse	0.064
B – Negative feelings	0.208
B – Hope for a reward	–0.131
B – Haughtiness	0.092
B – Positive feelings	0.221
B – Duty to principles	0.199

*The correlation is significant at $p < 0.05$

A – part "A" of the scale; B – part "B" of the scale

Results and discussion

Susceptibility to experiencing particular moral emotions in healthy individuals and in patients diagnosed with affective disorder (unipolar or bipolar)

A relationship has been observed between the tendency to experience negative feelings related to following rules and suffering from mood disorders. Patients with a diagnosis of bipolar disorder were significantly more likely than healthy subjects to experience emotional states such as dissatisfaction, sadness and regret, anger and irritation, feelings of being submissive or feelings of internal breakdown and conflict. Taking into account the fact that the group of manic-depressive patients was not symptomatically homogeneous because it consisted of patients undergoing various episodes of the disease at the time of the study, it seems reasonable to suspect that not the symptoms themselves, but other characteristics of the people included in this group, were important in the context of their susceptibility to experiencing the above-mentioned moral emotions.

Interesting observations could be made by examining the personality of individual subjects diagnosed with BD. The literature on the subject describes the similarity of these patients in terms of reduced conscientiousness, compared to healthy individuals, which was observed both during acute episodes of the disease [29, 30] and in euthymia [31]. Conscientiousness speaks, among other things: of the individual's level of self-discipline, prudence and dutifulness. Low intensity of this trait is associated with less scrupulousness in observing moral principles and less motivation for social achievements [32]. It can be suspected that a situation in which individuals with bipolar disorder, who are at the same time not very conscientious, are faced with the choice of whether to act in accordance with the rules or against them, will arouse in them internal conflict, tension or a kind of emotional opposition. This is particularly likely to be the case when a given norm is imposed on them from the outside, e.g. by the ethical system in force in a given community, when it has not been internalised and incorporated into their internal value system.

Another feature that has been observed in studies on the personality of patients diagnosed with BD is their increased tendency to experience hostility and aggressive feelings towards the outside world [33]. If we consider this tendency as a certain personality disposition, we can expect that it will, to some extent, imply a negative attitude towards existing rules.` While compliance with norms established together with others leads to beneficial social adaptation, this may come at some emotional cost if these norms arouse reluctance and internal opposition of the individual. Perhaps this cost was visible in how respondents diagnosed with BD described their emotional reactions to the decision to follow the rules.

Susceptibility to experiencing various moral feelings in particular episodes of bipolar disorder and recurrent depression

This study also showed differences within the group of patients diagnosed with BD regarding the tendency to experience positive emotions in response to breaking the rules. Individuals in an episode of hypomania, acting against the rules, were more likely to experience emotional states such as a sense of release, pleasure or joy, curiosity and excitement, compared to depressed people. This type of emotional response to doing something that is perceived as morally inappropriate is considered to be one of the most immature [9]. It is likely to be a kind of reaction to breaking rules imposed on the individual from the outside, which he/she did not accept. Acting against internalised rules would involve experiencing emotional conflict and discomfort rather than pleasure or relief [9]. It is believed that an unformed, unstable or inconsistent internal value system is characteristic of patients diagnosed with profound personality disorders [34, 35]. In the case of the studied group, however, it is difficult to conclude that personality structure is the main factor underlying the differences between hypomanic and depressed subjects. It is more likely that it is not so much the personality but rather the self-image of the patients that changes with the change of the phase of the disease. It is possible that the observation that hypomanic subjects experience more frequent positive feelings in response to breaking rules is a consequence of their increased mood at the time of the research. This may be related to their temporal tendency to experience increased positive feelings in general, which in turn could be reflected in the memories they recalled about how they felt when they exceeded the norms.

Those in a depressive episode could, in turn, be characterised by a tendency to remember mainly their unpleasant emotional reactions, excluding positive ones. As the perception of oneself, one's history and the surrounding world is often consistent with the experienced mood [36, 37], it can be assumed that memories and the way of experiencing oneself could be distorted in both groups – by symptoms of either elevated or depressed mood. Perhaps it is the presence of this type of distortions, which in a sense constitute the reverse and obverse of the same mental process, that explains the statistically significant difference analysed here between the subgroups of patients with hypomania and depression, and the lack of significant differences between the subgroups: hypomania-remission and depression-remission (assuming that people in remission assess themselves in a more complex and adequate way).

It is also possible that hypomanic patients are unable to perform an adequate self-assessment and determine which moral principles are important to them. It may be difficult for them to properly predict the consequences of their own actions [38]. Their emotional reaction to breaking norms – or the memory of such a reaction – may be the result of a misjudgment of the situation and their own participation in it, particularly its potentially negative consequences. The state of hypomania favours seeing oneself and the world in unambiguously bright colours, excluding what does not fit into such an idealised image [39]. Moreover, after a period of elevated mood, many patients, having gained a critical view of how they acted during the hypomanic episode, face

the severe experience of guilt, which they did not experience before the symptoms of this episode subsided [10].

In the presented research, no significant differences were observed in the susceptibility to experiencing specific moral emotions between subgroups of patients diagnosed with MDD: people in a depressive episode and those in remission. It seems important to take into account the severity of symptoms reported by those in an acute episode of the disease, which would help to clarify the level of homogeneity that characterises the studied group in this respect.

We also compared the results obtained by patients with different diagnoses (BD or MDD), but experiencing symptoms of a similar episode (depression) or in symptomatic remission. In the first case, no significant differences were observed: depressive patients, regardless of which mood disorders they were diagnosed with, were similar in terms of moral emotionality and susceptibility to experiencing various moral feelings. However, differences in the functioning of emotional conscience were noticed between euthymic patients diagnosed with BD and those in remission in the course of MDD. They concerned the sense of remorse (the so-called healthy sense of guilt) and the sense of duty to principles. In both cases, higher results were achieved by subjects diagnosed with recurrent depression. It seems probable that the observed differences, if not dictated by the presence of disease symptoms, may result from the different personalities (including temperament) of the examined patients. These include characteristics of people diagnosed with BD, such as: dispositional mood lability, tendency to changeability in the area of self-portrait and social relationships, easily getting angry [40] or reduced conscientiousness [29–31] and a tendency to show hostility [33]. In turn, individuals diagnosed with MDD are described as rather withdrawn, shy and secretive, not very assertive, experiencing guilt [42], perfectionistic, critical of themselves and having a high need for achievement [42]. Sometimes, attention is also drawn to the high emotional dependence of depressed patients on other people. They are characterised by a strong need to receive support, care and concern, as well as a clear desire to be accepted [43]. Such excessive emotional dependence is, in turn, understood as a manifestation of the difficulty of MDD patients in experiencing and expressing feelings such as anger or hostility directed towards other, especially significant people [44]. Both the tendency to experience a sense of duty towards applicable rules and the tendency to experience a sense of remorse and guilt fit into this image of the personality of depressive patients.

Severity of disease symptoms and susceptibility to experiencing particular moral emotions

A correlation was observed between the severity of depressive symptoms and the tendency to experience certain moral feelings. An increase in symptom severity was associated with higher frequency of experiencing fear of punishment for breaking the rules in the group of patients with MDD and with a decrease in the tendency to experience positive feelings in response to breaking norms in the group of patients with BD and in the entire group of patients (BD and MDD).

Fear of punishment is considered an immature moral emotion [6]. It is a reaction to perceived reprimand from significant others in response to misconduct. The ability to experience this feeling does not require having an internalised value system – the reference point based on which an individual classifies his/her behaviour as good or bad is outside his/her psyche. What matters is the expected reaction of other people or a broader authority (e.g. God), not the feeling of acting inconsistently with oneself. What is important, however, is that having a relatively mature emotional conscience does not mean losing the ability to experience moral feelings associated with external control in favour of those resulting from self-control processes. A person who has highly internalised norms may also experience fear of punishment. Some people will be susceptible to experiencing a very diverse set of feelings when breaking the rules – from a deep sense of guilt, through self-pity and resentment towards others, to fear of unpleasant consequences of their actions [4].

It is thought-provoking why the tendency to experience fear of punishment would increase with the severity of depression, and the fact that such a relationship was observed only in the group of patients diagnosed with MDD. This is another result that seems to suggest that people struggling with bipolar disorder and those diagnosed with recurrent depression differ in many aspects, despite the similarities between them. It seems that the fear of being punished can be associated with the belief that one deserves punishment. This is a view often found in people reporting the experience of guilt, which is a common emotional experience of depressive patients [45]. In fact one of the items on the *Hamilton Depression Rating Scale*, regarding feelings of guilt, contains an answer stating that the respondent believes that their current condition is a form of punishment for their offenses ("Present illness is a punishment. Delusions of guilt."). This response is considered to be a manifestation of a clear intensification of the sense of guilt that appears in the course of a depressive syndrome, associated with greater pathology and a deeper form of the disease [26]. There is a concept according to which the feeling that one deserves punishment stems from an unconscious desire to be punished (which is a consequence of a deep sense of guilt and anxiety) [46]. In this approach, it is not the lack of internal moral principles and leniency towards oneself, but the individual's excessive harshness, the tendency to self-accusation and self-blame, that would be responsible for his or her tendency to take antisocial actions [46].

Another observation made in the research reported here was that patients diagnosed with an affective disorder in general (without differentiating into the group of people with BD or MMD) and patients diagnosed with BD report a lower tendency to experience positive feelings in response to breaking the rules when experiencing more severe symptoms of depression. This is probably related to the generalised reduced tendency to experience positive emotional states, such as joy or satisfaction, present during an episode of depression. It is possible that the increase in symptoms of depressive syndrome will result in an increase in the proportion of unpleasant memories recalled in the reflections of affected people, at the expense of those related to pleasure [36, 37, 47, 48]. The relationship analysed here was not observed among subjects diagnosed with MDD. Perhaps this is because this group of patients reported a significantly lower susceptibility to experiencing positive feelings as a result of exceeding norms than

people diagnosed with BD, which in the present study was unrelated to the level of symptom severity.

A positive correlation was also observed between the severity of manic symptoms and the susceptibility to experiencing positive feelings (e.g. a sense of release, pleasure, joy or excitement) in response to rule-breaking. As in the case of the severity of depressive mood symptoms, it is also worth taking into account the possibility that the answers given by subjects in a hypomanic mood depended on their mood. A greater degree of symptom severity could have favoured the recall of pleasant rather than unpleasant memories, in accordance with the principle that how an individual recalls his or her own history remains consistent with his or her emotional state [36, 37].

It is possible that the increase in manic symptoms was also accompanied by a decrease in the ability to make an adequate self-assessment regarding the feelings accompanying the subjects in the rule-breaking situations they recall, and a decrease in the ability to critically assess the consequences of their behaviour [38]. Some distortion may have also occurred in the process of introspection and examination of one's own value system, aimed at determining which principles are subjectively important to the studied person and which are not. It appears that the hypomanic state may be associated with a tendency towards carefreeness, independence and greater moral freedom, which seems to increase the more severe the symptoms [10].

Conclusions

The research suggests that the emotional conscience of people with affective disorders may have some specific features that are not clearly visible in the group of healthy subjects. It has been observed that:

1. There is a relationship between the tendency to experience negative feelings related to following rules and suffering from bipolar disorder. Patients diagnosed with bipolar disorder significantly more often than healthy subjects experienced, when norms were violated, emotional states such as dissatisfaction, sadness and regret, anger and irritation, a feeling of being submissive or a sense of internal breakdown and conflict.
2. People suffering from bipolar disorder experiencing symptoms of hypomania are more prone than depressive people to experience positive emotional states (such as joy, curiosity and excitement) in response to a situation in which they break the rules.
3. The greater severity of depressive symptoms in patients with recurrent depression is associated with a greater tendency to feel fear of punishment for breaking the rules.
4. The increase in the severity of depressive symptoms in people with bipolar disorder is associated with a decrease in the tendency to experience positive feelings in response to exceeding norms. A similar result is visible when we look at the entire study group of patients diagnosed with affective disorder (including people with bipolar disorder and recurrent depression).

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