



## Emotional self-regulation in depression and anxiety. The moderating role of empathy

Andreea Gemănaș, Alina Chiracu

University of Bucharest

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Corresponding author at: University of Bucharest, Department of Psychology, 90 Panduri Av, Bucharest, RO. Tel.: +40 (0) 31-425.34.45.

E-mail address: andreeagemanas@gmail.com

### ABSTRACT

The aim of this study is to analyze the relationships between emotional self-regulation and the most prevalent psychological disorders at the moment, anxiety and depression. At the same time, we aim to investigate the moderating role of empathy in this relationship. The study was conducted on a sample of 145 participants aged between 20 and 46,  $M = 23.89$ ,  $SD = 5.33$ . The instruments used were Emotion Regulation Questionnaire, Toronto Empathy Questionnaire, and Depression, Anxiety and Stress Scale (subscales for depression and anxiety). The results highlighted that ineffective emotional self-regulation is significantly and positively associated with anxiety. However, emotional ineffective self-regulation was not significantly associated with depression. According to the results, empathy does not moderate the relationship between ineffective emotional self-regulation and anxiety. The results of our study emphasize the necessity for giving a special attention to the factors involved in anxiety and depression, including emotional self-regulation and empathy.

**Keywords:** *depression, anxiety, emotional self-regulation, empathy*

### 1. INTRODUCTION

Anxiety and depression are the most common mental disorders and obviously affect people's entire functioning. According to the World Health Organization, currently approximately 246 million people suffer from major depression and 374 million have anxiety (WHO, 2022). Moreover, the two are comorbid, the relationship between them being studied for a long time in the medical and psychological literature. Both have also been integrated into

the category of internalizing disorders. For example, Akiskal (1998) highlighted that generalized anxiety disorder, which predisposes to the onset of depression, is based on a specific adaptive form known as "altruistic anxiety" and which presents the risk of leading to a more severe pathology.

The further study of these two constructs is essential, as they present a high level of complexity and numerous

metamorphoses in relation to the evolution of society. The effects of the pandemic were not limited to the economic and medical sphere, but had a considerable impact on the mental health of the population. This aspect is also highlighted in a study carried out in China on approximately 1210 participants, where over half of the sample reported moderate or severe psychological effects and 28.8% presented moderate to severe anxiety symptoms (Zhang et al., 2020). Regarding depression, researchers have revealed the existence of post-Covid depression, which affected 40% of those infected with this virus (Zhang et al., 2020).

Anxiety and depression also have effects on the global economy both directly and indirectly through the considerable reduction in productivity (WHO, 2022). Considering the above, the imperative character of studying and understanding the complex of anxiety disorder and depression is observed in order to make psychotherapeutic approaches more effective and to prevent them. In order to succeed in achieving these objectives, it is necessary to understand the substrates of the constructs and the internal factors that influence their appearance and modification.

#### **Emotional self-regulation, depression, and anxiety**

Emotional self-regulation is a concept that has been intensively studied for a long time, especially in terms of its role in successful adaptation (Calkins & Leerkes, 2004). One definition presents emotional self-regulation as a set of processes through which people change the type of emotions, their chronology, and the way they experience and manifest the emotional sphere (Gross, 1998). In another conceptualization, this term is presented as a cybernetic control process consisting of two other elements. The first is a monitoring one, which makes the comparison between two states, namely the current state of the subject and the target state, i.e. the desired one. Then, the operating system would intervene, which aims to reduce the discrepancy between the two states by going through the necessary steps (Koole et al., 2011). It is therefore noted that this approach emphasizes the conscious side involved, motivation and will. Later, researchers also brought forward the non-conscious or automatic processes involved in self-regulation (Fitzsimons & Bargh, 2004). The self-motivational model of regulation emphasizes the fact that the entire mechanism involved in formulating goals and achieving them is carried out without the presence of the conscious side (Bargh, 1990; Bargh & Gollwitzer, 1994). The explanation is that goals, like other mental constructs, integrate information about what they entail and the conditions necessary to achieve them (Tolman, 1932). When goals are already mentally represented, they are automatically activated when environmental conditions favor their attainment (Fitzsimons & Bargh, 2004).

Problematic emotional responses, resulting from difficulties in emotional self-regulation, contribute to the emergence and development of several psychopathological disorders (Gross & Levenson, 1997). More specifically, an inadequate level of emotional self-regulation leads to depression and anxiety (Mennin et al., 2007). The concept of emotional self-regulation refers to the modification of emotional states in terms of duration, intensity or frequency (Gross, 2008). According to Gross and Jazaieri (2014), the emotion regulation process involves three essential stages, respectively: the presence of awareness of emotions, the establishment of goals in accordance with their modification and the approach of appropriate strategies.

Emotional self-regulation is an effective strategy for preventing and managing depression and anxiety. Several theories and research have suggested that an essential factor in the emergence and maintenance of anxiety is represented by difficulties in emotional self-regulation (Rodebaugh, 2008). Some theorists have highlighted the adaptive function of emotions (Lang et al., 1998), it remains to be analyzed how at a given moment the functional and adaptive aspects of emotions end up becoming maladaptive (Rodebaugh, 2008). Researchers have emphasized the hypothesis that anxiety and depression result from the perception of difficulties and the attempt to avoid the occurrence of negative outcomes, linking emotional self-regulation with emotional disturbances. Thus, emotional self-regulation may be the link between anxiety and depression (Rodebaugh, 2008). Regarding the relationship between emotional self-regulation and depression, there is a lot of consistent evidence emphasizing that the former is an essential factor in triggering the latter. Neuroscience findings are relevant to the fact that emotional difficulties specific to depression are based on dysfunctions in the neural circuits of emotional self-regulation. In subjects with depressive disorder there was greater activation in the right anterior cingulate cortex, right amygdala, and right insula (Beauregard et al., 2006).

Major depressive disorder is part of the category of affective disorders and is characterized by the experience of negative emotional states, concomitant with the decrease of positive emotional responses (Joorman & Stanton, 2016). An essential aspect is the link between the way emotions are processed and the way they are physically expressed (Michalak et al., 2009). Anhedonia is a key concept in depression, with clinical studies highlighting its impact on antidepressant medication as well (Rizvi et al., 2016). This term is defined by the lack of pleasure, more specifically in difficulties in experiencing it, which impacts the whole life of the person (Gorwood, 2022). Also, two emotions that are imbued with moral and social standards, namely guilt and shame, are frequently associated with major depressive disorder (Orth et al., 2006). On the other hand, the researchers emphasized that major depressive disorder

involves diminished emotional responses. If the first two ideas referred to the diminution or decrease of certain types of emotions, this perspective rather emphasizes a certain detachment (Rottenberg et al., 2005). As an argument for this view is the fact that emotional responses, regardless of their nature, involve energetic involvement and relationship with the environment (Nesse, 2000). Hopelessness is an emotion specific to depression and consists of negative expectations and the lack of positive ones (Joiner et al., 2005). Several studies have shown that hopelessness is a central factor in suicide and suicidal thoughts (Beck et al., 1993).

Emotional self-regulation strategies are divided into two categories, depending on when they appear, according to the process model, respectively strategies that appear before experiencing emotions and strategies after them (Gross, 1998). It is important to delimit emotional self-regulation from the idea of coping, as the latter refers rather only to the reduction of negative emotions (Gross, 2014). For example, situation modification refers to changes made to the situation to adjust the emotional effect. Another strategy involves distracting attention from certain particularities of the situation or from the situation as a whole (Gross, 2014). Response modulation occurs after the emotion has occurred and involves modifying various aspects of it. This category includes several strategies, which aim to modulate emotional expression, namely: exacerbating, inhibiting or redirecting it (Larsen & Prizmic, 2004).

In terms of generalized anxiety disorder, the defining emotion is excessive worry (APA, 2013). According to researchers, this is aimed at avoiding experiencing negative emotions, as a result of poor emotional self-regulation (Mennin et al., 2004). Furthermore, research has noted that people with generalized anxiety disorder tend to use worry as a way to abstract from other emotional issues (Borkovec & Roemer, 1995).

Starting from the idea that the lack of ability to self-regulate negative emotions plays a fundamental role in the emergence and development of major depressive disorder, the researchers explained this fact by means of the neural circuits involved. By scanning major depressed individuals and controls as they attempted to voluntarily decrease feelings of sadness it was observed that the degree of difficulty was greater for depressed individuals (Beauregard et al., 2006).

Emotional self-regulation is achieved neurally through the involvement of the prefrontal cortex. Research has shown that heightened activation of the amygdala to emotional stimuli is characteristic of mood disorders such as major depressive disorder (Donegan et al., 2003; Silbersweig et al., 2007). The amygdala plays an important role in anxiety, as it automatically assesses the emotional charge of a stimulus. Moreover, it is part of what entails the

emergence of unconditioned fear (Panksepp, 1991). Research has highlighted that the change in the volume of the amygdala, or its decrease, is present in major depressive disorder (Sacher et al., 2012). The hippocampus is involved in the process of contextual fear conditioning (LaBar & Phelps, 2005).

Taking into account the above, we propose to analyze the relationship between ineffective emotional self-regulation and depression, but also the relationship between ineffective emotional self-regulation and anxiety, so we formulate the following hypotheses:

H1: *Ineffective emotional self-regulation is significantly and positively associated with depression.*

H2: *Ineffective emotional self-regulation is significantly and positively associated with anxiety.*

### **Empathy, depression and anxiety**

Empathy is a construct of great interest for all areas of psychology, starting from psychotherapy, social and personality psychology, reaching neuropsychology and clinical psychology. This is precisely why this term has been defined in various ways, which gives a complex perspective on it. It is obvious that this term is an umbrella one, as it is composed of several types of emotions, attitudes, behaviors and values (Hall et al., 2018). Comprehensively, empathy is defined as an emotional state that is activated by another person's emotional state. The term empathy comes from the Greek, where *empathia* referred to the evaluation, appreciation of another person's emotional experience (Astin, 1967). Later, the conceptualization of this term expanded, including a cognitive component in addition to the affective one. Empathy includes the emotional sphere, that is, the affective states triggered by those of other people, and the cognitive sphere, which involves mentally taking over the other's perspective (Rueda et al., 2014). Empathy was also defined in the context of the psychotherapeutic process, especially by Carl Rogers (1980), as an ability of the therapist to see through the eyes of the client, from his perspective, to understand his feelings, emotions and especially internal turmoil by adopting the framework its reference. Moreover, according to him, empathy involves entering into the internal world of the other, so that the person who empathizes feels the internal changes of his meanings. Another definition in this context has been conceptualized in close connection with the process of identification with the customer experience (Mahrer, 1997).

Empathy is essential for a harmonious emotional development and determines the appearance of prosocial behavior (Zahn-Waxler & Van Hulle, 2011). However, researchers have shown that a much too high level of empathy is involved in the development of psychopathological disorders (Tone & Tully, 2014). When empathy becomes maladaptive, it increases the predisposition for the emergence of internalizing disorders

(Tone & Tully, 2014). Empathy is a concept that has been conceptualized in various variants and situations. Researchers have shown that people have a high level of predisposition to empathy, that is, to have emotional responses to the suffering of others and to try to offer support to those in need. This aspect has also been highlighted in neuroscience studies through the discovery of mirror neurons. The close connection of empathy with the concept of compassion is already known (Knight et al., 2019). Moreover, it implies a high level of awareness and emotional sensitivity, constructs in connection with a high level of anxiety (Knight et al., 2019). On the other hand, a heightened level of anxiety is manifested by increased vigilance and constant concern for those around, which further outlines the connection with a high level of empathy (Knight et al., 2019). It was emphasized that in most cases people with depression show moderate or high levels of empathy. Depression, similar to other emotional states, has the characteristic of becoming contagious and impacting people's empathy (O'Connor et al., 2007).

Depression has most often been presented as involving an exaggerated preoccupation with the self and as an ineffective way of managing emotions (O'Connor et al., 2002). However, the authors emphasized that depression also involves a high level of concern for others (O'Connor et al., 2007). Research has highlighted the fact that a high degree of emotional and cognitive empathy is associated with the appearance of depressive symptoms (Tone & Tully, 2014). Sadness, characteristic of depression (APA, 2013), is a component of empathic concern and favors the adoption of prosocial behavior (Eisenberg & Eggum, 2009).

Regarding affective empathy and anxiety, studies have revealed the existence of a positive correlation (Gambin & Sharp, 2018). According to Akiskal (1998), generalized anxiety disorder is based on altruistic anxiety, a particular form of it that has an adaptive function at the base, but when it acquires certain proportions it becomes pathological. Worry is a state specific to generalized anxiety disorder, manifesting at a heightened level and over a long period of time (APA, 2013). Empathy involves concern for others or certain contexts in which they are, which associates it with anxiety (Knight et al., 2019). In a study conducted on hospitalized adolescents, it was found that empathy correlates with all aspects of anxiety (Gambin & Sharp, 2018).

In addition to sensing and understanding affective states, empathy involves emotional contagion (Yan et al., 2021). In addition, the ability to empathize affectively is based on the system of emotional contagion (Shamay-Tsoory, 2011). Moreover, this has been conceptualized as warm empathy (Prochazkova & Kret, 2017). Emotional contagion is defined as someone's predisposition to

assimilate the other's state from an emotional, but also a physiological, motor, sensory aspect (Hatfield et al., 1994). Researchers have emphasized the fact that the level of emotional contagion is higher when it involves negative emotions, an aspect explained as a way for the person to notice and avoid danger (Spoor & Kelly, 2004). Thus, when affective contagion involves negative emotions, it is obvious that the empathizer will feel a high level of emotional discomfort, which predisposes to the development and maintenance of depression (Yan et al., 2021).

The comorbidity of anxiety and depression is known, but also the fact that in many cases the former precedes the latter. When empathy is associated with anxiety, it leads to depression (Zahn-Waxler & Van Hulle, 2011). The explanation behind this sequence is related to the fact that the high level of emotional stimulation specific to anxiety leads to the exhaustion of the person's basic systems, which subsequently determines the onset of depression (Zahn-Waxler & Van Hulle, 2011). When empathy is associated with anxiety it leads to depression.

Also, generalized anxiety disorder involves a heightened level of general worry, which also associates it with a high level of empathy. In a study of hospitalized adolescents, empathy was found to correlate with all aspects of anxiety (Gambin and Sharp, 2018). Emotion awareness is present in both empathy and anxiety (Knight et al., 2019). Likewise, the defining state of worry for anxiety is also present in empathy (Knight et al., 2019).

Another essential construct is that of empathic personal distress, which occurs as a result of a lack of clear demarcation between self and other and as an excessive focus on one's own emotional state in reaction to someone else's emotional state (Tone & Tully, 2014). It has also been presented as a maladaptive form of empathy, which consists of pronounced feelings of anxiety in borderline situations (Davis, 1983). Research results show that the predisposition to adopt reactions involving personal distress is clearly associated with the development of internalizing disorders, including anxiety and depression (O'Connor et al., 2012; Zahn-Waxler & Van Hulle, 2011). This leads to avoidance behavior involving empathy and depression (Batson, 2009). In addition, avoidance is known to be a behavior involved in triggering and maintaining anxiety (Eifert & Forsyth, 2007).

Taking into account the above, we aim to analyze the moderating role of empathy in the relationship between ineffective emotional self-regulation and depression, but also in the relationship between ineffective emotional self-regulation and anxiety.

H3: *Empathy moderates the relationship between ineffective emotional self-regulation and depression.*

H4: *Empathy moderates the relationship between ineffective emotional self-regulation and anxiety.*

## 2. METHODOLOGY

### Participants and procedure

A number of 145 people aged 20 and 46 participated in the present study,  $M = 23.89$ ,  $SD = 5.33$ , of which 25 men (17.24%) and 120 women (82.76%). Regarding the place of origin, 40 come from the rural area (27.59%) and 105 from the urban area (72.41%), and regarding the marital status, 49 are single and 96 are in a relationship. The inclusion criteria was that participants must be of age 18 or more. The sampling method is one of convenience.

Out of a total of 150 people invited to participate in the study, 145 agreed to participate to the end by completing the questionnaire (97%). Prior information was provided by email, participants were not rewarded. The data collection was carried out through the questionnaire made with Google Forms, later being distributed by email and on various facebook groups dedicated to data collection. At the beginning of the questionnaire, prior information about what participation in this study entails and respecting confidentiality was introduced. Moreover, the people had a choice whether to continue completing the questionnaire after reading the information about its development or whether to choose to withdraw from the study. The research ethics conditions regarding data processing and interpretation, as well as data security monitoring, were met. The data were initially organized in encrypted Excel spreadsheets to which only the authors of this study had access. No participants' names or other data that could link the participant's identity to the data provided by them were requested.

### Instruments

*Sociodemographic variables* were collected through a list of questions regarding gender, age, background, and marital status.

*Emotional self-regulation* was measured with the Emotion Regulation Questionnaire (Gross & John, 2003). The instrument includes 10 items and measures several dimensions, respectively cognitive reappraisal and expressive suppression. Answers are given on a seven-point Likert scale, where 1 - total disagreement and 7 - total agreement. An example item for expressive suppression is:

"I keep my emotions to myself". For cognitive reappraisal an example item is: "I control my emotions by changing the way I think about the situation". Scores are obtained by summing the scores of each item.

*Empathy* was measured with the Toronto Empathy Questionnaire (Spreng et al., 2009). The instrument comprises 16 items and measures empathy as a primary emotional process. Answers are given on a five-point Likert scale, where 0 – never and 4 – always. Scores are obtained by summing the scores of each item. An example item is: "If someone feels emotional, I tend to feel emotional myself".

*Depression* was measured with Depression, Anxiety and Stress Scale, DASS21 (Lovibond & Lovibond, 1995). The subscale for depression includes seven items and measures several dimensions, namely dysphoria, hopelessness, devaluation of life, self-depreciation, lack of interest/involvement and interactivity. Answers are given on a four-point Likert scale, where 0 – did not suit me and 3 – suited me very much or almost all of the time. Scores are obtained by summing the scores of each item. An example item is: "It seemed to me that I did not feel any pleasant emotion".

*Anxiety* was measured with Depression, Anxiety and Stress Scale, DASS21 (Lovibond & Lovibond, 1995). The subscale for anxiety comprises seven items and measures several dimensions, namely autonomic stimulation, effects on skeletal muscles, situational anxiety and the subjective experience of the anxious effect. . Answers are given on a four-point Likert scale, where 0 – did not suit me and 3 – suited me very much or almost all of the time. Scores are obtained by summing the scores of each item. An example item is: "I felt like I was losing my balance (eg, my legs went numb)".

### Study design

This study has a cross-sectional, exploratory, correlational design. Data organization and statistical analyzes were performed using the statistical analysis program IBM.SPSS 25 (IBM Corp, 2016) and Jamovi medmod module (The jamovi project, 2023).

## 3. RESULTS

### Descriptive statistics

Means, standar deviations, Cronbach Alpha coefficients, and correlations between variables are presented in Table 1.

**Table 1. Descriptive statistics**

	M	SD	$\alpha$	AR	EMP	ANX	DEP
AR	42.68	8.95	.73	1			
EMP	48.19	8.71	.84	-.06	1		
ANX	1.19	6.28	.90	.27**	-.13	1	
DEP	6.17	5.85	.92	.05	-.25**	.54**	1

Note: \*\*.  $p < .01$ , \*  $p < .05$

AR = Emotional self-regulation, EMP = Empathy, ANX = Anxiety, DEP = Depression

The scores for emotional self-regulation are slightly above the average,  $M = 42.68$ ,  $SD = 8.95$ , for empathy they are slightly below the average,  $M = 48.19$ ,  $SD = 8.71$ . Regarding anxiety the scores are very low,  $M = 1.19$ ,  $SD = 6.28$  and for depression low  $M = 6.17$ ,  $SD = 5.85$ .

At the same time, there are significant positive correlations between emotional self-regulation and anxiety,  $r = .27$ ,  $p < .01$  and between anxiety and depression,  $r = .54$ ,  $p < .01$  and significant negative correlations between empathy and depression =  $-.25$ ,  $p < .01$ .

Skewness and kurtosis are in the range  $(-1, 1)$ , which reflects a normal data distribution.

There were no missing cases and no cases were removed from any of the statistical analyses.

### Hypotheses testing

H1: *Ineffective emotional self-regulation is significantly and positively associated with depression.*

H2: *Ineffective emotional self-regulation is significantly and positively associated with anxiety.*

In order to test this hypotheses, two simple linear regression analysis were performed, with ineffective emotional self-regulation as the predictor and depression/anxiety as the dependent variables.

**Table 2. Simple linear regression analysis for ineffective emotional self-regulation as a predictor for depression**

	B	SE	$\beta$	t	p
AR	.03	.55	.05	.60	.55

Note:  $R^2 = .00$

AR – Emotional self-regulation

**Table 3. Simple linear regression analysis for ineffective emotional self-regulation as a predictor for anxiety**

	B	SE	$\beta$	t	p
AR	.19	.06	.27	3.34	.00

Note:  $R^2 = .07$

AR – Emotional self-regulation

The ineffective emotional self-regulation is not a significant predictor of depression, the regression equation being statistically insignificant,  $F(1, 143) = .36$ ,  $p = .55$ . Ineffective emotional self-regulation is positively but non-significantly associated with depression,  $\beta = .05$ ,  $p = .55$ . On the other hand, the ineffective emotional self-regulation is responsible for 7% of the variation in anxiety, the regression equation being statistically significant,  $F(1, 143) = 11.12$ ,  $p < .01$ . Ineffective emotional self-regulation is significantly and positively associated with anxiety,  $\beta = .27$ ,  $p < .01$ .

H3: *Empathy moderates the relationship between ineffective emotional self-regulation and depression.*

Considering that there is no significant relationship between emotional self-regulation and depression, no moderation analysis can be performed.

H4: *Empathy moderates the relationship between ineffective emotional self-regulation and anxiety.*

In order to test this hypothesis, a moderation analysis was performed with ineffective emotional self-regulation as the predictor, anxiety as the dependent variable and empathy as the moderating variable.

Contrary to our expectations, empathy did not moderate the relationship between ineffective emotional self-regulation and anxiety,  $b = .01$ , 95% CI  $(-.01, .02)$ ,  $z = .74$ ,  $p = .46$ .

## 4. DISCUSSION

Through the first hypothesis, we tested the association between emotional self-regulation and depression. The results showed that there is no significant association between these two variables. This aspect shows that the measured ineffective emotional strategies, namely cognitive reappraisal and expressive suppression, are not associated with depression. However, researchers have emphasized that cognitive processing is correlated with depressive symptomatology, which impacts the use of cognitive reappraisal as an effective strategy for emotion modification (Joorman & Stanton, 2016). This finding is closely related to the idea that cognitive and emotional factors influence each other (Joorman & Stanton, 2016). Certainly, although it is known that emotions are based on certain cognitive schemas, these in turn lead to the activation of cognitions in congruence with them (Joorman & Stanton, 2016). It is important to note that people perform cognitive reappraisal in diverse and particular ways, which naturally leads to different results when it is analyzed and evaluated (Gross & John, 2003). For example, in another study it was emphasized that the effects of cognitive reevaluation are directly determined by the methods used and the emotional goals set (McRae et al., 2012). In addition, the use of expressive suppression has been shown to be ineffective when it comes to managing the state of sadness specific to depression, as it leads to an increase in it. Furthermore, the use of emotional suppression diminishes the quality of relationships with others, leading to a lack of social support, which accentuates depression (Gross & John, 2003).

The results obtained by us can be attributed to the fact that the participants in this study come from a non-clinical population, having low levels of depression and relatively high levels of emotional self-regulation. Relatively similar results were obtained by Powell (2018) in a study on individual differences in emotion regulation as a moderator in the relationship between empathy and affective distress. Thus, affective empathy predicted greater affective distress, but the effects on depression and anxiety were offset when people were effective at reappraising their emotions. Cognitive empathy predicted lower distress, but this effect on anxiety was absent in those who typically suppressed their emotions. Finally, suppression reduced the depression and stress reported for people high in affective empathy. These results underscore how people process and regulate their emotions differently, with positive, negative, or conflicting effects on depression and anxiety, if any.

Through the second hypothesis, we tested the association between emotional self-regulation and anxiety. The results showed that there is a positive association between these two variables. This highlights the fact that the use of ineffective strategies, such as cognitive reappraisal and expressive suppression, is associated with an increase

in anxiety. Cognitive reappraisal is rather used in the case of emotions involving low or medium emotional intensity, which is obviously not specific to anxiety, characterized by heightened emotional turmoil (Vishkin et al., 2019). This aspect would be explained by the fact that generalized anxiety disorder encompasses a multitude of somatic symptoms by which it is manifested and defined. By inhibiting its expression, an obvious discrepancy is achieved between the emotional state and the manifestation, which obviously intensifies the affective sphere. Studies have shown that expressive suppression increases the intensity of anxiety. Generalized anxiety disorder implies a much more intense experience of emotions, therefore a more accentuated emotional expressiveness (Gross & John, 1997). Worry, specific to anxiety, is a maladaptive way in which people try to avoid various anxiogenic stimuli, including certain emotional states (Turk et al., 2005). In this study it was highlighted that people with social anxiety have difficulties in expressing their positive emotions. Expressive suppression has also been observed to correlate with health anxiety (Bardeen & Fergus, 2014). Individuals with anxiety also tend to have preexisting negative cognitive schemas about external threats and relating to others (Rusch & Westermann, 2012).

The moderating role of empathy could not be tested in relation to depression due to the non-significant correlation between emotional self-regulation and depression. In relation to anxiety, empathy was not found to be a significant moderator. Thus, it seems that regardless of the level of empathy of the participants, the relationship between emotional self-regulation and anxiety remains unaffected. The result can be attributed to the fact that most of the study participants had low levels of anxiety, which to some extent reflects the fact that they display empathy in a healthy way without experiencing emotional contagion. Although there was a negative correlation between empathy and anxiety, it was non-significant, preventing us from reaching a strong conclusion.

### **Practical implications**

First of all, it is necessary that the forms of therapy focus on the uniqueness of each person and have an increased level of flexibility. It is important to carry out several prevention programs to avoid the pathologizing of emotional states. It is also imperative that therapy programs are based on treating the causes, but also on discovering and ameliorating risk factors. It is important to know the factors that trigger and maintain internalizing disorders in order to succeed in the early prevention of their more severe effects. Emotional self-regulation is a critical factor in the onset and maintenance of depression and anxiety, even though our study provides support in this direction only for anxiety. It



encompasses a variety of strategies whose effectiveness varies according to the particularities of the person concerned. The therapeutic techniques must address the person as a whole, taking into account all collateral aspects, visible and less visible, as well as additional emotional factors that may be involved in the manifested emotional problems.

### Limitations and further research

One of the limitations of the study is related to the fact that the number of participants was not very large. The use of larger samples is recommended in further research. Also, another limitation concerns the fact that most participants were female. It is advisable to pay more attention not only to the gender of the participants, but also to other sociodemographic variables such as profession and age. Another limitation would be related to the fact that the

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