# **RELATIONSHIP BETWEEN MINDFULNESS, SELF-COMPASSION AND DIFFICULTIES IN EMOTION REGULATION IN ADDICTS**

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#### Abstract

Difficulties in emotion regulation is one of the main characteristics of addictive disorders. Both mindfulness and self-compassion have been offered as possible alternative strategies of emotion regulation and have also been found to be connected.

Our objective was to understand how predisposition to be mindful (to be in the present moment), self-compassion and difficulties in emotion regulation relate to each other in a sample of addicts.

The present study was exploratory and has a cross-sectional design. Current results relate to 17 patients who were receiving treatment in VillaRamadas treatment center for addiction. The psychological measures used were: Mindful Attention and Awareness Scale (MAAS), Self-Compassion Scale (SCS) and Difficulties in Emotion Regulation Scale (DERS).

From the 17 participants, 13 were men. Age varied from 19 to 64 years (M= 33, SD= 10.13). MAAS presented strong negative association with self-judgment and all its subscales, and a moderate negative association with the DERS total score. It did not show any significant association with self-compassion or any of its subscales.

The DERS total score showed strong positive associations with both the total score of self-judgment, and the subscales self-criticism and over-identification and a moderate association with isolation. It also presented a moderate negative association with self-compassion, and strong negative associations with the subscales self-kindness and mindfulness.

MAAS was a significant predictor of self-judgment, explaining 50.9% of its variability. Both self-compassion and self-judgment were significant predictors of DERS, explaining 27.4% and 55.3% of its variance, respectively.

Keywords: Mindfulness, self-judgment, self-compassion, emotion regulation, addiction.

#### **1. Introduction**

Mindfulness and self-compassion are constructs that frequently appear connected as important predictors of psychological health (e.g. Keng, Smoski, & Robins, 2011; MacBeth, & Gumley, 2012), and are growing in popularity as emerging strategies to be integrated in clinical practice. Both have been proposed as emotion regulation strategies (e.g. Tang, Hölzel, & Posner, 2015; Berking, & Whitley, 2014) that can be particularly useful for disorders characterized by a deficit related skills, such as addiction disorders.

Our objective with this small exploratory study was to explore the relationship between predisposition to mindfulness, self-compassion (and self-judgment) and difficulties in emotion regulation, in a clinical sample of addicts receiving treatment.

## 2. Methods

#### 2.1. Participants

The sample was composed of 17 Portuguese patients, receiving treatment for an addiction disorder at VillaRamadas International Treatment Centre throughout December of 2018 and January of 2019.

From the 17 patients, 13 were male and 4 were female, and age varied between 19 and 64 years (M= 33, SD= 10.13). All the patients had been diagnosed at admission into treatment, either with a substance use disorder or with an impulsive disorder (behavioral addiction).

#### 2.2. Measurements

*Mindfulness Attention and Awareness Scale* (MAAS; Brown & Ryan, 2003; Portuguese translation and adaptation by Pinto Gouveia, & Gregório, 2013), is a 15-item self-report measure of a core

characteristic of dispositional mindfulness, which is open awareness and attention of the present moment. The items are scored on a 6-point Likert scale from 1 ("almost always") to 6 ("almost never").

Self-Compassion Scale (SCS; Neff, 2003; Portuguese version by Castilho, Pinto-Gouveia, & Duarte, 2015), is a set of two scales, self-compassion and self-judgment, which score is composed by the added scores of three subscales each. The subscales for the self-compassion scale are Self-Kindness, Common Humanity and Mindfulness; for the self-judgment scale are Self-Criticism, Isolation and Over-identification. All the items are scored on a 5-point Likert scale from 1 ("almost never") to 5 ("almost always").

*Difficulties in Emotion Regulation Scale* (DERS; Gratz, & Roemer, 2004; Portuguese version by Veloso, Pinto-Gouveia, & Dinis, 2011), is a self-report instrument that can calculate scores for six subscales and a total score. The 36 items that compose the scale are scored on a 5-point Likert scale from 1 ("almost never") to 5 ("almost always"). For the present study, only the total score was considered. Higher scores indicate greater emotion regulation difficulties.

#### 3. Results

#### **3.1. Descriptive statistics**

Years of education ranged from 10 to 16 years, with a mean of 13.47 years (SD = 1.84).

The MAAS total score mean result was of 56.06, with SD = 11.09.

From the SCS, the Self-Compassion total score presented a mean result of 35.12 (SD = 10.15), with a mean result of 12.76 (SD = 4.51) for Self-Kindness, of 11.47 (SD = 3.71) for Common Humanity, and of 10.88 (SD = 3.12) for Mindfulness. The Self-judgment total score presented a mean result of 39.88 (SD = 10.84), with a mean result of 15.88 (SD = 4.58) for Self-Criticism, of 11.29 (SD = 3.46) for Isolation, and of 12.71 (SD = 3.72) for Over-identification.

Finally, the DERS total score had a mean result of 94.18, with a SD = 27.11.

#### **3.2.** Correlation values between the studied variables (Spearman's correlation)

Age showed a moderate positive association with both years of education and the mindfulness subscale of self-compassion.

MAAS presented strong negative association with self-judgment and all its subscales, and a moderate negative association with the DERS total score. It did not show any significant association with self-compassion or any of its subscales.

The DERS total score showed strong positive associations with both the total score of self-judgment, and the subscales self-criticism and over-identification and a moderate association with isolation. It also presented a moderate negative association with self-compassion, and strong negative associations with the subscales self-kindness and mindfulness.

The complete results are presented in Table 1.

	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	-											
2. Years of Education	<b>.510</b> *	-										
3. MAAS	.438	.112										
SCS			-									
<ol> <li>Self- Kindness</li> </ol>	.331	.059	.201	-								
5. Common Humanity	116	032	.158	.608**	-							
6. Mindfulness	<b>.483</b> *	.047	.301	.743**	.546*	-						
7. Self- Compassion Total	.315	.102	.203	.930**	.750**	.849**	-					
8. Self- Criticism	427	.183	651**	671**	347	644**	<b>600</b> *	-				
9. Isolation	093	.250	668**	342	414	304	399	.610**	-			
10. Over- identificatio	265	.235	662**	637**	353	603*	<b></b> 557 <sup>*</sup>	.954**	.603*	-		
n 11. Self- judgment	326	.162	750***	639**	422	583*	598*	.950**	.797**	.943**	-	
Total 12. DERS	385	.038	568*	648**	210	603 <sup>*</sup>	564*	.850**	.491*	.803**	.815**	_

Table 1. Correlation values between the studied variables.

*Note.* Values in **bold** indicate a statistically significant association between the respective variables. Significance level: \* = p < .05; \*\* = p < .01; \*\*\* = p < .01.

### **3.3. Linear regression**

Three simple regression analyses were conducted, the first one with MAAS as a possible predictor of self-judgment, and the second and third with self-judgment and self-compassion as predictors of difficulties in emotion regulation, respectively.

MAAS was a significant predictor of self-judgment (F(1,15) = 17.617, p = .001) with an adjusted  $R^2$  of .509. Both self-compassion (F(1,15) = 7.053, p = .018) and self-judgment (F(1,15) = 20.783, p < .001) were significant predictors of DERS, with adjusted  $R^2$  of .274 and .553 respectively.

# 4. Discussion

Our results indicate that predisposition to be mindful is strongly associated with and a significant predictor of self-judgment in addicts, but not with self-compassion. Given the strong association between self-judgment and difficulties in emotion regulation, and taking into consideration its importance in addiction, this result could partially explain the success of mindfulness-based programs for addiction.

Given the very small sample size, the results have to be interpreted with extreme caution. Although mindfulness was not a predictor of difficulties in emotion regulation in this study, future research could explore this potential relationship and, if found, the possible mediation effect of self-judgment.

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