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### Letter to the Editor

# The influence of therapeutic alliance in the quality of life of obsessive-compulsive disorder patients: An intervention study

Cognitive Behavioral Therapy (CBT) is a first-line intervention for Obsessive-Compulsive Disorder (OCD) treatment given numerous studies showing its benefit. However, improvement of symptoms may not be the only outcome that CBT could improve, and prior studies have shown that it can improve quality of life (QOL) [1]. One potential reason that CBT improves QOL is that the therapeutic process could be helpful with coping of the symptoms of the psychiatric condition [2]. This may be highly relevant for individuals with OCD, since they as a group have poorer QOL than seen in others conditions [3] and they may have fewer adaptive and more maladaptive coping skills [4].

Across treatments for psychiatric conditions, there are common factors that can contribute to beneficial outcomes. Therapeutic Alliance (TA) is one of these factors and it may play an important role in CBT for OCD treatment, due to the use of exposure and response prevention (ERP) techniques. These techniques are associated with a high level of discomfort and require a strong bond between patient and therapist. To assess the connections between CBT, OCD, and TA, we conducted an intervention study to examine the influence of TA on QOL in a brief seven-session CBT program for OCD.

Eligible participants were individuals between 18 and 60 years of age who attended the Outpatient Clinic of the Catholic University of Pelotas from June 2012 to December 2014. Those with substance abuse (except tobacco), moderate/severe suicide risk at baseline, severe psychotic symptoms, and inability to understand study instruments were excluded. The project was approved by the Ethics Committee of the Catholic University of Pelotas under protocol number 2011/24. The Mini International Neuropsychiatric Interview 5.0 (MINI Plus) [5] was used for OCD diagnosis. We used the 12-Item Short-Form Health Survey (SF-12) [6] to evaluate QOL and the Revised Helping Alliance Questionnaire (HAQ-II) [7] to assess TA. The Brazilian Association of Research Companies' (ABEP) criteria were used to evaluate socio-economic status, which is based on the accumulation of material goods and education level of the household head. The HAq-II and SF-12 were applied at the first and last CBT session.

To describe and compare the characteristics between subjects who completed and did not complete treatment we used the chi-square test and *t*-test. The t-test for paired samples was used to verify the mean differences of TA and QOL pre- and post-treatment, and to compare them with the sample characteristics we used the *t*-test, ANOVA and Pearson's correlation.

We recruited 104 patients, and 54 (51.9%) completed the intervention protocol. No differences were observed between subjects who completed and did not complete treatment (p > 0.05). For this reason, we analyzed the treatment completers (n = 54; Table 1). In this group, therapist rating of TA increased by 4.7 points (95% CI: 1.9, 7.4; p = 0.001) and the mental component score of the SF-12 increased by 9.7 points (95% CI: 5.9, 13.6; p < 0.001). The physical component of SF-12 and the patient rating of TA did not show significant mean

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differences between pre and post-treatment (Fig. 1). TA was not associated with improvements on the SF-12. (Table 1).

We hypothesized that a better TA would predict an improvement in QOL, but TA was not associated with improvements on the SF-12. These findings are consistent with one prior study also finding that TA did not predict improvement in QOL [8], but contrary to our findings, another study showed that the therapist's rating of TA predicted outcome, whereas the patient's TA did not [9]. Strauss, Huppert, Simpson and Foa [8] affirm that in CBT treatment for OCD, TA may be a result of symptom change and may play a supporting role in the outcome, but the main elements of change are the ERP techniques. More studies on this subject are needed to be carried out. Of note, we found a significant increase in the therapist's TA, but not in patient's TA. It may take time and effort for the patient to trust the therapist [10], and the limited number of sessions in our intervention may have hampered this relationship.

The small sample is a limitation of the study, and the fact that we only examined those who completed treatment. Another limitation is the lack of a control group. Due to the importance of QOL as an outcome, we suggest that larger samples and control groups should be studied, especially in OCD, where there are fewer studies related to TA, QOL and OCD, but since it is a chronic disorder, more studies on therapeutic process are needed to develop targeted therapeutic strategies.

### **Declaration of Competing Interest**

None declared.

### Acknowledgements

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#### Ethical approval

All procedures performed in our study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. The subjects signed a free and informed consent statement for the analysis and anonymous publication of the research findings. This project was approved by the Research Ethics Committee of the Catholic University of Pelotas, Brazil (protocol no. 2011/24).

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#### Table 1

Baseline characteristics of the sample and multivariate analysis between therapeutic alliance and quality of life of patients treated with CBT for OCD in Pelotas, RS.

Variables	Total N (%)/mean (SD)*	Treatment		p-value	Quality of life			
		Completed	Not completed N (%)/mean (SD)*		Physical Score <sup>a</sup>		Mental score <sup>a</sup>	
		N (%)/mean (SD)*			mean (SD)/r <sup>b</sup>	p-value	mean (SD)/r <sup>b</sup>	p-value
Sex ( <i>N</i> = 104)				0.068		0.839		0.442
Male	29 (27.9)	20 (36.4)	09 (18.4)		-0.6 (11.9)		7.7 (16.3)	
Female	75 (72.1)	35 (63.6)	40 (81.6)		-0.02 (9.5)		10.8 (12.3)	
Age (N = 86)				0.794		0.594		0.837
18–28	29 (33.7)	14 (31.8)	15 (35.7)		0.9 (13.5)		8.4 (18.9)	
29–39	28 (32.6)	15 (34.1)	13(31.0)		-1.5 (9.3)		10.1 (8.8)	
40–60	29 (33.7)	15 (34.1)	14 (33.3)		2.7 (10.3)		7.1 (11.8)	
Socioeconomic status ( $N = 102$ )				0.783		0.980		0.368
A + B	45 (44.1)	23 (42.6)	22 (45.8)		-0.5 (8.4)		12.0 (14.4)	
С	54 (52.9)	31 (57.4)	23 (47.9)		-0.4 (11.9)		8.4 (13.6)	
D + E	03 (2.9)	00 (0.0)	03 (6.3)		-		-	
Education $(N = 87)$				0.279		0.386		0.435
Less than high school	21 (24.1)	9 (20.0)	12 (28.6)		-3.9 (12.0)		11.3 (10.4)	
High school diploma	24 (27.6)	12 (26.7)	12 (28.6)		0.7 (11.1)		11.5 (12.2)	
University degree	2 (48.3)	24 (53.3)	18 (42.9)		2.3 (10.5)		6.1 (14.6)	
Living with partner $(N = 87)$				0.912		0.317		0.003
No	43 (49.4)	23 (51.1)	20 (47.6)		2.4 (10.1)		2.6 (11.6)	
Yes	44 (50.6)	22 (48.9)	22 (52.4)		-0.9 (11.6)		14.3 (12.5)	
Therapeutic alliance – patient	104.4 (7.3)	104.6 (7.0)	103.9 (8.0)	0.703	0.40	0.783	0.99	0.494
Therapeutic alliance – therapist	97.3 (10.5)	96.8 (10.3)	98.3 (10.9)	0.535	0.17	0.229	0.006	0.966
Quality of life – mental score	33.7 (12.1)	34.2 (12.8)	32.8 (11.3)	0.678	-		-	
Quality of life – physical score	50.4 (10.2)	49.3 (9.6)	51.7 (10.9)	0.257	-		-	
Total	104 (100.0)	54 (51.9)	50 (48.1)		-0.20 (10.4)		9.7 (13.9)	

<sup>a</sup> Analysis only with those who completed the treatment.

<sup>b</sup> Pearson's correlation.





Quality of life – Mental Scored



\*T-test for paired samples; a p=0.001; p=0.133; p=0.861; q < 0.001

Fig. 1. Mean differences of TA and QOL in OCD patients pre and post-treatment\*.

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