ORIGINAL ARTICLE

Predictors of response to cognitive behaviour therapy for obsessive-compulsive disorder

Michael Kyrios[a],*, Celia Hordern[b], Daniel B. Fassnacht[a]

[a] *The Australian National University, Australia*
[b] *Private Practice, Melbourne, Australia*

Abstract Response to psychological treatment for Obsessive-Compulsive Disorder (OCD) varies, and dropout and relapse rates remain troubling. However, while studies examining symptom reductions are favourable, outcomes are less encouraging when outcome is defined in terms of clinically significant change. Moreover, there is little understanding of what predicts treatment outcome. This study examined demographic, symptomatic and cognitive predictors of outcome in 79 participants undertaking individualised cognitive-behavioural therapy for OCD. After investigating differences between treatment completers and non-completers, we examined treatment response as defined by post-treatment symptom severity and clinically reliable change, as well as predictors of treatment response. Completers were less likely to present with co-morbidity. The treatment was highly efficacious irrespective of whether completer or intention-to-treat analysis was undertaken, with 58% of treatment completers considered ''recovered'' at post-treatment. Lower pre-treatment levels of OCD symptoms and greater perfectionism/intolerance of uncertainty were the best unique predictors of OCD severity outcomes at post-treatment. Changes in obsessional beliefs were associated with symptomatic change, although only perfectionism/intolerance of uncertainty was a significant unique predictor of post-treatment change. Recovery status was predicted only by pre-treatment OCD severity. In helping to identify those at risk for poorer outcomes, such research can lead to the development of more effective interventions.
© 2015 Published by Elsevier España, S.L.U. on behalf of Asociación Española de Psicología Conductual. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Resumen La respuesta al tratamiento psicológico para el Trastorno Obsesivo-Compulsivo (TOC) es variable, y las tasas de abandono y recaída son preocupantes. Mientras los estudios que analizan la reducción de los síntomas son favorables, los resultados son menos

 * Corresponding author. Research School of Psychology, College of Medicine, Biology & Environment, The Australian National University, Canberra, Australian Capital Territory 2601, Australia.
 E-mail address: michael.kyrios@anu.edu.au (M. Kyrios).

alentadores cuando estos se definen en términos de cambio clínicamente significativo. Existe poco conocimiento de lo que predice el resultado del tratamiento. Este estudio examinó predictores demográficos, sintomáticos y cognitivos de los resultados en 79 participantes en terapia cognitivo-conductual individualizada para el TOC. Después de investigar las diferencias entre los que completaron el tratamiento y no lo finalizaron, se analizó la respuesta al tratamiento según la definición de gravedad post-tratamiento de los síntomas y el cambio clínicamente fiable, así como predictores de la respuesta al tratamiento. Los que completaron el tratamiento eran menos propensos a presentar comorbilidad. Baja intensidad de síntomas en el pre-tratamiento y mayor perfeccionismo/intolerancia a la incertidumbre fueron los mejores predictores de los resultados. Los cambios en las creencias obsesivas se asociaron con el cambio sintomático, aunque sólo perfeccionismo/intolerancia a la incertidumbre fue predictor del cambio post-tratamiento. Esta investigación puede conducir al desarrollo de - intervenciones más eficaces.
© 2015 Publicado por Elsevier España, S.L.U. en nombre de Asociación Española de Psicología Conductual. Este es un artículo Open Access bajo la licencia CC BY-NC-ND (http:// creativecommons.org/licenses/by-nc-nd/4.0/).

Obsessive Compulsive Disorder (OCD) is characterized by recurrent obsessions and compulsions that cause significant distress and impairment. The last 20 to 30 years has seen the development of psychological interventions that have been shown to be effective (Fisher & Wells, 2005; McKay et al., 2015; Öst, Havnen, Hansen, & Kvale, 2015; Romanelli, Wu, Gamba, Mojtabai, & Segal, 2014; Williams, Mugno, Franklin, & Faber, 2013). Subsequently, the prognosis for individuals with OCD has changed from poor to good, primarily with the application of behavioural and cognitive techniques (McKay et al., 2015; Öst et al., 2015), although in practice most treatment programs for OCD encompass both intervention types in the form of cognitive-behaviour therapy (CBT). Despite the relative success for those who complete these treatments, a significant percentage of those treated do not recover to a substantial degree and there is relatively little data available on the longer-term maintenance of gains, while drop outs and relapses remain high (Fisher & Wells, 2005).

Exposure with response prevention (ERP) is the most prominent intervention for OCD, although patients often encounter difficulties with the demands of ERP which may partly account for high drop-out rates and poor treatment adherence (Kyrios, 2003). Cognitive therapy (CT), which uses techniques such as behavioural experiments to correct erroneous beliefs and appraisals relevant to OCD (Olatunji, Davis, Powers, & Smits, 2013), appears to be a helpful additional treatment option in many cases (Wilhelm, Berman, Keshaviah, Schwartz, & Steketee, 2015), but may not provide the critical impact on reducing drop-outs and improving treatment response that was initially hoped (Olatunji et al., 2013).

Despite pronouncements about the relative efficacy and effectiveness of cognitive and behavioural interventions, comparison of treatment evaluations has been hampered by a number of methodological limitations. Firstly, the delivery of CBT remains unreliable, with few manualised or standardized formats available where treatment integrity can be evaluated. Secondly, symptoms still persist at moderate levels in most patients, but few studies report the degree of clinical change. Jacobson and Truax (1991) consider the notion of ''clinically significant change'' and specify a standardized methodology for examining substantial and reliable reduction in symptom severity. Fisher and Wells (2005) applied this standardized methodology to evaluate psychological outcome trials for OCD. They reported that ERP was the most effective treatment with 50-60% of patients recovering, but much lower recovery rates (25%) for both ERP and CBT when using asymptomatic criteria. This suggests that we may need to reflect on what methods we use to define treatment outcome, and examine which patients are at risk of dropping out of treatment or are likely to show a less significant treatment response.

The identification of predictors of reliable treatment outcomes represents one critical area requiring ongoing investigation (Olatunji et al., 2013). Studies of outcome determinants may allow the targeting or addition of specific treatment strategies for those at risk of poorer outcome. Predictor variables can be classified into eight broad classes: (a) demographic variables; (b) characteristics of OCD symptoms such as severity; (c) comorbidity and associated symptom severity; (d) cognitive influences; (e) motivational factors such as treatment expectations; (f) treatment factors (e.g. compliance, therapeutic alliance); (g) biological factors; and (h) other factors (e.g., personality, family, treatment-specific characteristic, see Keeley, Storch, Merlo, & Geffken, 2008; Kyrios, 2003).

A review of clinical predictors of response to CBT concluded that, despite inconsistencies in the literature, some salient predictors have emerged (Keeley et al., 2008), although there are inconsistencies in the literature (Olatunji et al., 2013; Ponniah, Magiati, & Hollon, 2013). This paper will focus on the first four factors as these are commonly assessed at time of presentation and would be useful in identifying predictors of outcome and appropriateness of CBT in the management of OCD.

Severity of OCD symptoms has been identified as a predictor of poorer outcome in numerous studies (for an overview see Knopp, Knowles, Bee, Lovell, & Bower, 2013), although not consistently. Using CT, Steketee et al. (2011) found a