A commentary on 'Dropout from randomised controlled trials of psychological treatments for depression in children and youth: a systematic review and meta-analyses'

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Dear Editor-in-Chief

We read the article 'Dropout from randomised controlled trials of psychological treatments for depression in children and youth: a systematic review and meta-analyses' by Isobel Wright and colleagues with great interest. The authors included 37 randomised controlled trials (RCTs) in the review, including 4,343 participants who had received a psychological treatment for depression. They concluded an overall dropout rate from active psychological interventions of 14.6% (95% CI 12.0-17.4%). We were surprised by this low dropout rate and present our view on why this estimate should be viewed with caution, paying particular attention to the dropout definitions used.

It is noteworthy that the Wright et al. report that just nine of the 37 included studies (24%) explicitly specified how treatment completion was defined, perhaps unsurprising given the lack of consensus over operational definitions of treatment dropout. Although Wright et al. do not provide a conceptual definition of treatment dropout, in a clinical context dropout is typically regarded as a client ending treatment prematurely, without agreement of their therapist (Pekarik & Finney-Owen, 1987). While this conceptual definition of dropout is widely accepted, there is a lack of consensus regarding how dropout should be operationalised. Evidence shows that different dropout definitions result in substantially different estimates of dropout rates and predictors of dropout (Warnick et al., 2012). We must pay careful attention to dropout definitions when drawing conclusions and comparing findings across studies.

Wright et al. base their review on two operationalisations of dropout: 'Study rated treatment non-completion' (19 of 37 included studies) and 'Missing post-treatment research assessment data' (18 of 37 included studies). We reflect on the use of these two definitions reported.

Study rated treatment non-completion

Wright et al. reported 19 studies where treatment dropout was based on 'study rated treatment non-completion'. As treatment completion and dropout were not always reported, the authors often inferred 'treatment completion' from the reported data. For example, some included studies reported the number of participants who 'Received allocated intervention' (e.g. the IMPACT trial by Goodyer et al., 2017). However, whilst some studies defined this as meaning those who had attended *all* planned treatment sessions, participants classified as 'Received allocated intervention' in Goodyer et al.'s study were those who attended *at least*

one session. This provides a very low threshold for participants to be classified as completing treatment. As such, Wright et al. reported an extremely conservative estimate of treatment dropout (9.6%) from the IMPACT trial, effectively only classifying those as dropouts who didn't actually take up the therapy in the first place – which may be regarded as a conceptually distinct phenomenon from that of dropping out (Werbart & Wang, 2012). To provide a comparison, secondary analysis of data from the IMPACT trial, not reported in the systematic review, found that 37% of young people dropped out, when dropout was operationalised as the client's unilateral decision to end treatment, as reported by their therapists - in addition to the 10% of participants who did not take up treatment (O'Keeffe et al., 2019a).

These examples demonstrate the inconsistency in reporting of treatment completion/dropout. This is likely due to the lack of standardised way of operationalising and reporting treatment completion/dropout, rarely defined *a priori* in trial protocols. As such, trialists often report whether participants received none of the sessions or all of the sessions, which can be objectively measured with relative ease, yet these methods do not appear to be measuring conceptualisations of treatment dropout.

Missing post-treatment research assessment data

Approximately half of the trials reviewed by Wright et al. did not provide sufficient information to report on 'study rated treatment non-completion', and so a second definition was used as a proxy indicator of treatment dropout 'missing post-treatment research assessment data'. Eighteen included studies used this approach, which has been used in previous studies (e.g. Lewis, Roberts, Gibson, & Bisson, 2020), yet we recommend against this practice. In RCTs, researchers will assertively follow up participants to maximise

retention in research assessments, to retain power to test the hypotheses (Daykin et al., 2018). For instance, researchers may offer participants out-of-hours research meetings and flexible locations, such as home visits, telephone or video meetings, in addition to using methods to track hard-to-find participants (Robinson et al., 2015). This contrasts with clinical practice, where clients in publicly-funded services will typically be discharged in the event of two missed sessions – meaning treatment dropout will often be substantially higher than study dropout rates. For example, a systematic review of Dialectical Behaviour Therapy found an overall treatment dropout rate of 84% compared with 16% of dropout from research assessments (Dixon & Linardon, 2020). Although Wright et al. found no difference between study and treatment dropout rates in their article, we urge researchers not to conflate the two.

Wright et al. claim their article provides evidence "that psychological therapies for depression in children and youth seem to be broadly acceptable, with minimal dropout". Whilst we applaud their attempt to examine this important topic, we argue these findings should be viewed with caution, and that drawing such a conclusion may be premature. The low level of agreement on how to operationalise dropout, and the lack of reporting standards on treatment dropout in clinical trials, make any such conclusions premature. Even where a standard definition is used, there may be significant variation in the reasons why young people drop out of therapy (O'Keeffe, Martin, Target, et al., 2019b). Until treatment completion and dropout are reported in RCTs in a more consistent manner, there is a risk that clinicians and commissioners will draw overly optimistic conclusions about the issue of therapy dropout for children and adolescents.

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