Commentary

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Commentary: The evidence base regarding the long-term effects of childhood mental disorder treatments needs to be strengthened – reply to Dekkers *et al*. (2023)

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In their reply to our editorial (Roest, de Vries, Wienen, & de Jonge, 2023), Dekkers et al. (2023) argue that treatment is the best choice for children with mental disorders because there is 'sound evidence' that interventions are effective, also in the long term. We agree that there is *sound* evidence for treatment effectiveness in the short-term and there is *some* evidence for longer-term effects of certain specific treatments, such as behavioral parent training in children with behavioral disorders, as acknowledged in our editorial. However, we strongly disagree that there is *sound* evidence for long-term effectiveness.

A systematic approach

Dekkers et al. (2023) suggest that we came to misguided conclusions partly because of not following existing guidelines for umbrella reviews. However, we did take a systematic approach in our overview. For example, we followed a (nonregistered) protocol and performed an AMSTAR-2 quality rating, although unfortunately, we could not include these aspects in the article due to restrictions related to the format of an editorial perspective.

Reducing potential bias is the main reason for performing systematic reviews (Chandler et al., 2022). Dekkers et al. (2023) themselves did not perform a systematic review but referred selectively to some systematic reviews or randomized controlled trials while leaving out studies that had neutral or even negative results. We think this provides a misleading impression of the literature. For example, the authors conclude that there is a sustained effect of cognitive behavioral therapy (CBT) in youth with anxiety by focusing on reviews and meta-analyses presenting within-group improvements in treated groups. Dekkers et al. (2023) do not mention a recent Cochrane review based on between-group effects. In this Cochrane review, James, Reardon, Soler, James, and Creswell (2020) concluded that there is currently no evidence that CBT provides an advantage over waitlist/no treatment over a period beyond 6 months after treatment for anxiety. Since within-group improvement may occur for reasons other than the intervention (e.g. regression to the mean, natural course of a disorder), it is advised to use between-group effects instead of within-group effects in meta-analyses (Cuijpers, Weitz, Cristea, & Twisk, 2017) and this is why lack of a suitable control group of (untreated) children with the disorder was one of our exclusion criteria. Dekkers et al. (2023) also argue that there is good evidence for the long-term effectiveness of psychotherapy for depression in children and adolescents, yet the Cuijpers et al. (2020) meta-analysis cited in support of this argument in fact did not find any significant effect of psychotherapy after 6 months in this age group (see the appendices of Cuijpers et al., 2020 for effect sizes and corresponding confidence intervals). Concerning ADHD, the authors refer to a preprint of a meta-analysis (Doffer et al., 2022) that includes studies in which the average follow-up period was only 5 months, and the study with the longest follow-up period still only had 12 months of follow-up. Furthermore, evidence for the (long-term) effect of stimulant medication on many of the other adverse health effects mentioned, such as accidental injuries and criminality, compares medicated and unmedicated periods without distinguishing between effects early in medicated periods (short-term effects) versus late in medicated periods (long-term effects) (see references in Faraone et al., 2021).

Moving the field forward

Dekkers et al. (2023) argue that we misinterpreted the absence of evidence as evidence of absence and that we use the methodological issues of long-term studies as arguments against treatment. We do not agree with this. We highlighted that virtually all included reviews mentioned the lack of studies with a long-term follow-up, thereby not allowing strong conclusions. The

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paucity of long-term studies assessing potential positive as well as negative effects of treatments of childhood mental disorders is a major gap in the scientific literature. Therefore, instead of arguing against or in favor of treatment, in our editorial, we aim to move the field further by discussing ways to strengthen the evidence base regarding long-term effects of childhood mental disorder treatments.

The primary aim of mental health treatment in children is alleviation of current complaints and improvement of functioning (Copeland, Tong, & Shanahan, 2022) and of course, we agree with the goal of Dekkers et al. (2023) to reduce suffering whenever possible. Positive effects more than 2 years following the intervention is a high bar to reach, as Dekkers et al. (2023), also suggest, however, that does not mean that long-term positive effects could be assumed in the absence of evidence. Furthermore, there appears to be a widespread belief in a *treatment as prevention hypothesis*, meaning that 'treatment of childhood psychopathology in the community might reduce risk for adult psychopathology'. (Copeland et al., 2022), which also partly motivates efforts toward screening and early diagnosis to identify children and adolescents with mental health problems who are not seeking care. In this regard, one should not ignore study results suggesting that interventions may have unwanted long-term effects, for example on substance use, coping strategies (Copeland et al., 2022), and self-efficacy or self-esteem (Jörg et al., 2012).

Money can only be spent once. Therefore, we should consider and investigate a broader repertoire of potential strategies, including whole-of-society actions, to reduce the public health burden of (childhood) mental disorders and their adult sequelae (Copeland et al., 2022; Herrman et al., 2022).

Conclusion

We understand Dekkers et al.'s (2023) concern that our focus on the disappointing lack of evidence for long-term effects of treatments for childhood mental disorders may be used to reduce the availability of mental health care services for vulnerable children. Still, in our view the commentary perfectly illustrates our impression that negative results in this field are faced with much more skepticism than positive ones, increasing the problem of publication and/or reporting biases. However, studies without positive findings are of major importance, since they show us the areas where there is still much (research) work left to do and may offer new directions for supporting children with mental health problems to develop into thriving adults.

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