Qualitative Treatment-Subgroup Interactions in a Randomized Clinical Trial of Treatments for Adolescents with ADHD: Exploring What Cognitive-Behavioral Treatment Works for Whom.

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Abstract

OBJECTIVE: This study explored qualitative treatment-subgroup interactions within data of a RCT with two cognitive behavioral treatments (CBT) for adolescents with ADHD: a planning-focused (PML) and a solution-focused CBT (SFT). Qualitative interactions imply that which treatment is best differs across subgroups of patients, and are therefore most relevant for personalized medicine.

METHODS: Adolescents with ADHD (N = 159) received either PML or SFT. Pre-, post- and three-month follow-up data were gathered on parent-rated ADHD symptoms and planning problems. Pretreatment characteristics were explored as potential qualitative moderators of pretest to follow-up treatment effects, using an innovative analyses technique (QUINT; Dusseldorp & Van Mechelen, 2014). In addition, qualitative treatment-subgroup interactions for the therapeutic changes from pre- to posttest and from post- to follow-up test were investigated.

RESULTS: For the entire time span from pretest to follow-up only a quantitative interaction was found, while from posttest to follow-up qualitative interactions were found: Adolescents with less depressive symptoms but more anxiety symptoms showed more improvement when receiving PML than SFT, while for other adolescents the effects of PML and SFT were comparable.

DISCUSSION: Whereas subgroups in both treatments followed different trajectories, no subgroup was found for which SFT outperformed PML in terms of the global change in symptoms from pretest to three months after treatment. This implies that, based on this exploratory study, there is no need for personalized treatment allocation with regard to the CBTs under study for adolescents with ADHD. However, for a subgroup with comorbid anxiety symptoms but low depression PML clearly appears the treatment of preference.

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