Randomized controlled trial of an Internet-delivered family cognitive behavioral therapy intervention for children and adolescents with chronic pain: Web-MAP

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INTRODUCTION

• Cognitive behavioral therapy (CBT) is a promising treatment for children with chronic pain. Multiple barriers to traditional outpatient CBT exist for this population (e.g., limited access, travel distances, and scheduling difficulties for children and families). The Internet provides an alternative medium to provide CBT.

• Study Aims: (1) Evaluate the efficacy of an Internet-delivered family CBT program at reducing activity limitations and pain in children and teens with chronic pain; (2) Examine acceptability of the Internet-delivered CBT treatment for families.

RESULTS: PAIN INTENSITY

• Children completed retrospective and online diary reports of pain and activity limitations pre-treatment, immediately post-treatment, and at 3-month follow-up.

• Activity Limitations: Child Activity Limitations Interview (CALLI; Palermo et al., 2004)
• Pain Intensity: 11 point NRS (0-10)
• Depressive Symptoms: Children completed the Revised Children’s Anxiety and Depression Scale (Chorpita et al., 2005)
• Acceptability: Children and parents in the Internet treatment group completed 0-5 Likert scale ratings of treatment acceptability

ANALYSES

• ANCOVAs with pre-treatment values entered as covariates in models tested pre- to post-treatment group differences
• Chi-square analysis evaluated the clinically significant improvement in pain (50% reduction in pain intensity) by group
• All analyses conducted as intent-to-treat

RESULTS: DEPRESSIVE SYMPTOMS

• Depressive symptoms were within the normal range at baseline (T score=56.08)
• No changes were observed in depressive symptoms from pre- to post-treatment in either group.

RESULTS: ACTIVITY LIMITATIONS

• Diary reports of activity limitations showed greater reduction in Internet treatment group compared to the Wait-list control group: F(1,45)=4.49, p=.03, partial η2=.11.
• Effects were maintained at 3-month follow-up in the Internet treatment group, F(2,24)=15.02, p<.001.

RESULTS: TREATMENT ACCEPTABILITY

• Usability of the program evaluated (Long & Palermo, in press)

RESULTS: TREATMENT ACCEPTABILITY

• Parents and children rated the treatment as acceptable (0-5 ratings; Parent M=3.82; Child M=3.55)
• 91% found treatment acceptable (rating ≥3)

CONCLUSIONS

• Findings support the efficacy of Internet-delivered family CBT in significantly reducing activity limitations and pain intensity in children and adolescents with chronic pain
• Depressive symptoms were subclinical and not changed by this Internet-delivered treatment
• The vast majority of families rated the treatment as acceptable
• Advances in CBT treatment delivery are crucial for pediatric chronic pain populations, as many children and adolescents face barriers to accessing specialty care for pain
• Future research will enhance the Web-MAP program and investigate the efficacy of Internet-delivered CBT in a larger multi-site sample

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