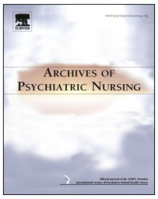
Archives of Psychiatric Nursing 27 (2013) 112–120

Contents lists available at SciVerse ScienceDirect

Archives of Psychiatric Nursing

journal homepage: www.elsevier.com/locate/apnu



Problem-Solving Intervention for Caregivers of Children With Mental Health Problems

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ABSTRACT

Building Our Solutions and Connections (BOSC) focused on enhancing problem-solving skills (PSS) of primary caregivers of children with mental health problems. Aims were determining feasibility, acceptability, and effect size (*ES*) estimates for depression, burden, personal control, and PSS. *Methods:* Caregivers were randomized to BOSC ($n = 30$) or wait-list control (WLC) groups ($n = 31$). Data were collected at baseline, post-intervention, and 3 and 6 months post-intervention. *Results:* Three-months post-intervention, *ES* for burden and personal control were .07 and .08, respectively. *ES* for depressed caregivers for burden and personal control were 0.14 and 0.19, respectively. *Conclusions:* Evidence indicates that the intervention had desired effects.

A large number of children are treated for mental health problems. In a recent national survey of mental health services for adolescents in the past year, 12.5% were treated at a mental health facility, 11.5% at an educational facility, and 2.8% at a medical setting (Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2009). Primary caregivers of these children have higher levels of burden and/or depressive symptoms than caregivers of children without such problems (Duchovic, Gerkensmeyer, & Wu, 2009; Elgar, Curtis, McGrath, Waschbusch, & Stewart, 2003; Elgar, McGrath, Waschbusch, Stewart, & Curtis, 2004; Gerkensmeyer, Perkins, Scott, & Wu, 2008). Contributing factors to caregivers' depression and burden are inadequate treatment of children's mental health problems (Elgar et al., 2003; New Freedom Commission on Mental Health, 2003) and increased responsibility for caring for children with high levels of acuity at home without appreciable resources (Grey, Knafl, & McCorkle, 2006; Scharer, Colon, Moneyham, Hussey, Tavakoli, & Shugart, 2009). Furthermore, caregivers' depressive symptoms and burden are frequently unrecognized and unaddressed in the clinical setting (Bussing et al., 2003; Elgar et al., 2004; Sivberg, 2002; Swartz et al., 2005; Tolan & Dodge, 2005). As a result, caregivers experiencing high levels of burden and/or depressive symptoms most likely will have more difficulty addressing the needs of their child with mental health problems (Elgar et al., 2004; Verdeli, Ferro, Wickramaratne, Greenwald, Blanco, & Weissman, 2004; Weissman et al., 2006).

Relatively few studies have addressed caregivers of children with mental health problems. A preliminary study of the prevalence and severity of depressive symptoms among 155 primary caregivers of 2 to 19 year-old children showed that over half (57.4%) had at least a moderate level of depressive symptoms. Perceived personal control, role disruption, subjective distress and intangible and tangible support mediated the association between child behavior problems and caregivers' depressive symptoms. Overall, caregivers reported receiving low to moderate levels of social support and having moderate levels of perceived personal control. Moderate to high levels of both subjective and objective burden were reported (Gerkensmeyer et al., 2008).

From the same study by Gerkensmeyer et al. (2008) a secondary analysis of a subgroup of 139 biological, adoptive, and step-mothers identified differences in depressive symptoms based on demographic, threat, stressor, and resource variables (Gerkensmeyer, Perkins, Day, Austin, Scott, & Wu, 2011). High mean levels of depression ($M = 20.3$) were found on the Center for Epidemiological Studies Depression Scale (Radloff, 1977). When mothers were placed into two groups (high/low) based on level of depression symptoms, those in the high depression group reported greater child behavior problems, more burden, greater role disruption, and greater likelihood of perceiving stigma and blame than those in the low depression group. In addition, the high depression group perceived relatively less personal control, lower family support, lower family empowerment, and less tangible support.

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0883-9417/1801-0005$34.00/0 – see front matter. Published by Elsevier Inc.
http://dx.doi.org/10.1016/j.apnu.2013.01.004

These caregivers' symptoms might be related to their child's mental health problems, such as aggressive behaviors, suicidal threats and related behavior, distress experienced by the child, and deterioration not only within the family environment, but within other settings such as the school, neighborhood, and legal system (Bussing et al., 2003; Duarte, Bordin, Yazigi, & Mooney, 2005; Lecavalier, Leone, & Wiltz, 2006; Schieve, Blumberg, Rice, Visser, & Boyle, 2007; Tan & Rey, 2005; Tomanik, Harris, & Hawkins, 2004). Additionally, having a child with mental health problems frequently results in profound feelings of loss, as well as constant fear and worry about the child's future (Duchovic et al., 2009; Mohr & Regan-Kubinski, 2001). Considering caregivers' major role in the care of a child with mental health problems, surprisingly little attention has been given to developing interventions to reduce caregivers' burden and depressive symptoms and to improve their ability to address the child's problems (Corring, 2002).

INTERVENTIONS FOR CAREGIVERS' DEPRESSIVE SYMPTOMS AND BURDEN

Randomized controlled trials (RCT) for depression have compared the efficacy of cognitive behavioral therapy (CBT), including problem-solving interventions (Brewin, 1996). In a meta-analysis comparing outcomes of antidepressants and CBT in severely depressed outpatient subgroups from four RCT, no differences were found in effectiveness (DeRubeis et al., 2005). In another meta-analysis, comparing pharmacotherapy, psychotherapy, and control conditions in remission of major depressive disorder, both antidepressant medication and psychotherapy alone were almost twice as effective as the control conditions, with no differences between treatments (Hollon et al., 2005).

Few RCT have examined use of PSI to address depression and/or burden among primary caregivers (primarily mothers) of these children, and none delivered it by telephone. Several studies, however, examining the use of PSI telephone interventions for patients (not caregivers) with depression in primary care settings showed improvements in outcomes over usual physician care, including decreased depression (Simon, Ludman, Tutty, Operskalski, & Von Korff, 2004).

CONCEPTUAL FOUNDATION FOR BOSC INTERVENTION

The conceptual foundation of the Building Our Solutions and Connections (BOSC) intervention was based on Lazarus and Folkman's transactional theory of stress and coping (Lazarus, 2000; Lazarus & Folkman, 1984), which proposes that stress results when demands of a specific transaction between an individual and her/his environment are appraised by the individual as exceeding available resources to cope with the demands (see Figure 1). Consistent with this stress and coping framework, D'Zurilla (1986) theorized that personal control is related to problem solving through one's perception that a problem is controllable and that one is able to solve the problem through one's own efforts.

The BOSC intervention is a cognitive–behavioral problem-solving intervention (PSI) that was adapted from the Improving Mood-Promoting Access to Collaborative Treatment (IMPACT) Program (Hegel & Arean, 2003). The BOSC intervention identifies primary caregivers' depressive symptoms and feelings of burden and links them to problems in living. It was proposed that primary caregivers of children with mental health problems would benefit from learning the problem-solving process, which would increase perceived personal control and problem-solving skills and, in turn, decrease burden and depressive symptoms. Strengthening emotion-focused strategies such as cognitive reframing and scheduling pleasant activities was also included to decrease the emotional impact associated with problems. Perceived personal control and problem-solving attitudes and skills were conceived as proximal outcomes and burden and depressive symptoms as distal outcomes.

PURPOSE OF THE STUDY

The purpose of this study was to determine the feasibility, acceptability, and preliminary estimates of effect sizes for the BOSC intervention when compared to a wait list control (WLC) group. To test feasibility, it was hypothesized that: (a) at least 75% of caregivers would complete at least seven of the nine problem-solving intervention sessions and (b) satisfaction ratings of the BOSC intervention participants would be at least 3.0 on a four-point scale for at least 80% of participants. In addition, it was hypothesized that compared to the WLC group, BOSC participants would report higher perceived personal control, improved problem-solving attitudes and skills, lower perceived burden, and fewer depressive symptoms at 1-week and 3-months after the last intervention session.

METHODS

Research Design

An experimental design was used with an intended randomization of 66 primary caregivers to either the BOSC group or wait-list control (WLC) group. With a projected attrition rate of 30% (based on a small pre-pilot study of the intervention), the goal was to have 25 caregivers in each group completing the first three data collections (DC). This design provided a comparison WLC group that doubled the number of participants intended to receive the intervention while still providing a true control group for the primary analyses. Further, it encouraged participation because the WLC group knew they would receive the intervention.

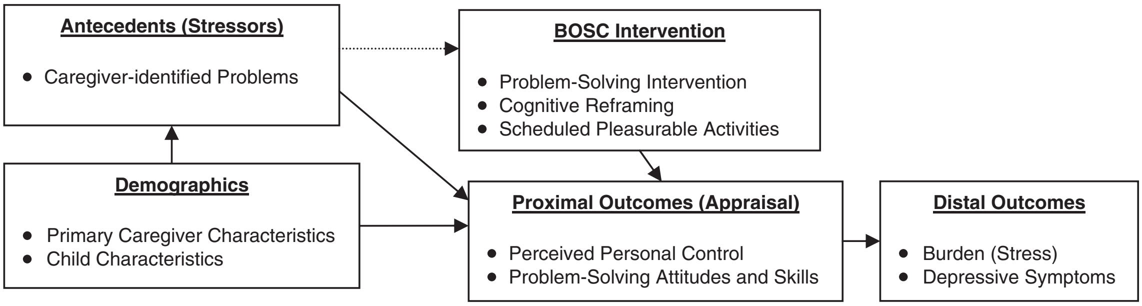

Fig 1. BOSC intervention model for caregivers of children with mental health problems.