

Effects of Caregiver-focused Programs on Psychosocial Outcomes in Caregivers of Individuals with ASD: A Meta-Analysis

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BACKGROUND

- Caregivers of individuals with ASD experience greater negative psychosocial outcomes than caregivers of individuals with other Developmental Disabilities (DD.)
- The majority of ASD-related interventions have focused exclusively on the offspring with ASD. For example, in a systematic review of parent-implemented interventions for young children with ASD, 67% of studies reviewed neither focused on nor reported parent outcomes (McConachie & Diggle, 2007). The potential to decrease parent stress and to increase parental well-being - variables that may also increase the effectiveness of interventions for the child with ASD (Wainer, Hepburn, & Griffith, 2017) is missed. Further, attention to parent stress may have spillover effects that positively impact the psychological well-being of other children within the family (Rossiter & Sharpe, 2001).
- Although a few intervention studies have been conducted in ASD or related non-ASD populations to address negative caregiver outcomes (Hastings & Beck, 2004), existing reviews are quite limited and the effectiveness of these interventions is not clear.

STUDY AIM

- The current study used meta-analysis to comprehensively review interventions using either within- or between-group designs (min. group size=5) that directly target psychosocial outcomes in ASD caregivers and to explore potential moderators of effectiveness.

METHOD

- The initial literature search was conducted in multiple sources (e.g., ERIC, MEDLINE, PubMed). Backward and forward searches and e-alerts were conducted for additional relevant studies in 2017/2018.
- A random-effects model was used to calculate the mean effect size, Hedges' *g*. The mean effect sizes from both pre-post intervention comparisons and group comparisons between treatment and control groups were calculated. Subgroup analyses and meta-regressions were conducted to examine potential moderators.
- Data analyses were conducted using the Comprehensive Meta-analysis 3 program (CMA 3; Borenstein et al., 2014)

RESULTS

- A total of 41 unique studies met the inclusion criteria, targeting 1771 caregivers ($N_{\text{treatment}} = 1156$, $N_{\text{control}} = 708$). The average caregiver age was 39.92 ($SD = 4.40$). Over half of the participants had a bachelor's degree or above (60.9%), and the majority were females (85.8%). One study focused exclusively on fathers of children with ASD, and 16 studies included only mothers.
- The mean age of the individuals with ASD across studies ranged from 4.5 months to 16.13 years old, with the majority being male (82.58%).
- Number of intervention sessions ranged from 1 to 60 ($M = 7.88$, $SD = 9.12$; mode = 8). The duration of interventions ranged from one day to three months ($M = 56.56$ days, $SD = 40.26$).

Variables	<i>k</i>	Variables	<i>k</i>
Publication Status		Intervention Approach	
Published	26	Social Support	5
Unpublished	15	Psychoeducation	10
Program Location		Acceptance & Commitment Therapy (ACT)	6
United States	21	Mindfulness-based	3
Non-US	20	Positive Psychotherapy	1
Research Design		Written Emotional Disclosure	4
Within-subjects design	18	CBT	7
Between-subjects design	23	Multicomponent	6
Comparison group		Delivery Format	
Treatment as usual/Waitlist	22	Individual	10
Active Control Group	1	Group	29
		Mixed	2

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RESULTS Cont.

- Overall, the interventions had a small positive effect on improving psychosocial outcomes in caregivers of individuals with ASD: **Within-subjects: Hedges' *g* = .44; Between-subjects: Hedges' *g* = .28.**
- Intervention impact was associated with type of intervention. Specifically, **CBT and ACT/mindfulness-based interventions** were more consistently effective in improving caregivers' overall psychosocial outcomes.
- The strongest *pre- to post-treatment* effect size impacts were noted for decreased perceived stress/distress ($ES = .56$) and parenting stress ($ES = .55$) and improved general well-being ($ES = .54$).
- The largest *between group* caregiver effect sizes were for improved general well-being ($ES = .65$), and decreased parenting stress ($ES = .49$), anxiety levels ($ES = .42$), and depressive symptoms ($ES = .32$).

Interventions	<i>k</i>	ES	95% CI
Composite	40	0.44	.24, .64
CBT	6	0.62	.30, .95
Multicomponent	5	0.55	.26, .84
Psychoeducation	10	0.52	-.14, 1.18
ACT/Mindfulness	9	0.49	.36, .62
Positive Psychotherapy/Written Emotional Disclosure	5	0.19	.10, .28
Social Support	5	0.06	-.19, .32

*Within-subject ESs

DISCUSSION

- Overall, interventions were effective in improving caregivers' psychosocial outcomes with a small, significant effect size. Most of the intervention approaches demonstrated some evidence of effectiveness although there was inconsistency in demonstrating significance in both within- and between-subjects analyses. The most consistent evidence was for ACT and mindfulness-based interventions which were moderately effective in improving caregiver psychosocial outcomes in both pre-post and group comparisons. The results indicate some evidence for the effectiveness of caregiver-focused interventions, however more studies with larger sample size, rigorous research design, and long-term follow-up assessments are needed.

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