



Acceptance and Commitment Therapy Effectivity towards Parents Stress – Meta Analysis

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Abstract: Background: Stress in parents inhibits their abilities to optimize parenting role. Acceptance and Commitment Therapy (ACT) helps parents to embrace their feelings and thoughts to be more committed in achieving well-being. Objective: This study aims to analyze the effectiveness of ACT to reduce stress in parents. Method: This research use meta-analytical method from RCT studies to provide in-depth analysis. Results: Result shows a large effect of ACT toward stress intervention within parents particularly in group-based format ($I^2 = 93.01\%$). Conclusion: This research has given significance proof to use ACT in order to reduce stress within parenting context. Further research should be focused on ACT intervention in Asian parents context with RCT, especially Indonesia.

Keyword: Acceptance and Commitment Therapy, Parents, Stress, Randomized Controlled Trials (RCT).

INTRODUCTION

Research about human development has been developing over years, keeping up with the latest era to provide up-to-date treatment. The role of parenting has been mainly discussed as this thing is stated to play an important role in children's development. Daily demands parents face lead to stress, which happens when resources do not meet their needs, either for the family nor themselves (Gouveia et al., 2016). Abidin (in Chung et al., 2020) explained about Parental Stress Model, in which stress in parents is the result of perception towards stressor or, once again, demands related to parenting. Previous studies have proved that stress in parents of disabled children rates higher than typical ones (Samadi et al., 2014; Craig et al., 2016; Barroso et al., 2017; Chodidjah & Kusumasari 2018; Lu et al., 2018; Holly et al., 2019). It is important for clinicians to pay attention to this matter, as stress in parents correlates with their ability to choose the best options for their children's treatment and development, thus optimizing parenting roles.

There are several methods to decrease the degree of stress in parents. One of the latest treatments is using Acceptance and Commitment Therapy (ACT), as a combination of cognitive and behavior intervention to reach mindfulness. This intervention is within the

Applied Behavior Analysis (ABA) field with psychological flexibility as its main goal. ACT has 6 domains : contact with present moment, defusion, acceptance, self-as context, values, and last, committed actions. Clients are asked to settle and accept their own thoughts and feelings as part of themselves, at last take commitment to reach a better life according to each individual's values of life (Harris, 2019).

In parenting context, ACT will ask parents to find their values of life overall and parenting, and to be present at the moment to be able to make decisions and be committed for change according to their values, also to take healthy boundaries for the soul (Prevedini et al., 2020). Coyne & Murrell stated the approach of cognition and emotion regulation for parents is the key for successful parenting, and this is what ACT believes (Wardani et al., 2017).

This study aims to discover whether ACT intervention has effectively decreased stress in parents. Previous studies has conducted systematic reviews and meta analytic about ACT and stress toward family caregiver (Han et al., 2021) and parents of children with developmental disability (Chua & Shorey, 2021) but with general outcome, but there is no study which discussed ACT impact specifically on stress in parents of children in general. The other novelty of this study is using Controlled Trial as one of the inclusion criteria. This is to compare the effectiveness of ACT more accurately rather than single case. This study hypothesized that ACT is effectively decreasing stress in parents, whether from children of disabilities nor typical.

METHOD

This meta-analytic review is conducted according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Guideline 2020. Research journals were searched through Google Scholar, Scencedirect, and Elicit, with key terms “ACT and parent stress RCT” ; “Acceptance Commitment Therapy and Stress RCT”; “Stress Intervention in Parent RCT”; “Mother Stress Intervention RCT”. The inclusion criterias are : (1) controlled trials about impact of Acceptance and Commitment Therapy towards stress in parents, both or individual (father/mother only), from typical or non-typical children; (2) latest 10 years (2013-2023); (3) does not include waitlist control (WLC) group which had post-result after given the intervention. Research with WLC is accepted if this control group is given the intervention after follow-up session of the experiential group. This is to make sure the control group was purely not given ACT to compare the effectiveness of methods specifically. ACT is a new intervention, therefore it is important to keep up with the latest data. The exclusion criterias for this research are : (1) does not discuss ACT effectiveness toward stress in parents; (2) conducted before 2014; (3) single-group or RCT but with WLC which post-test score was taken after being given ACT intervention; (4) controlled group was given ACT intervention in different time or method (e.g. web-based self-help and guided by therapist).

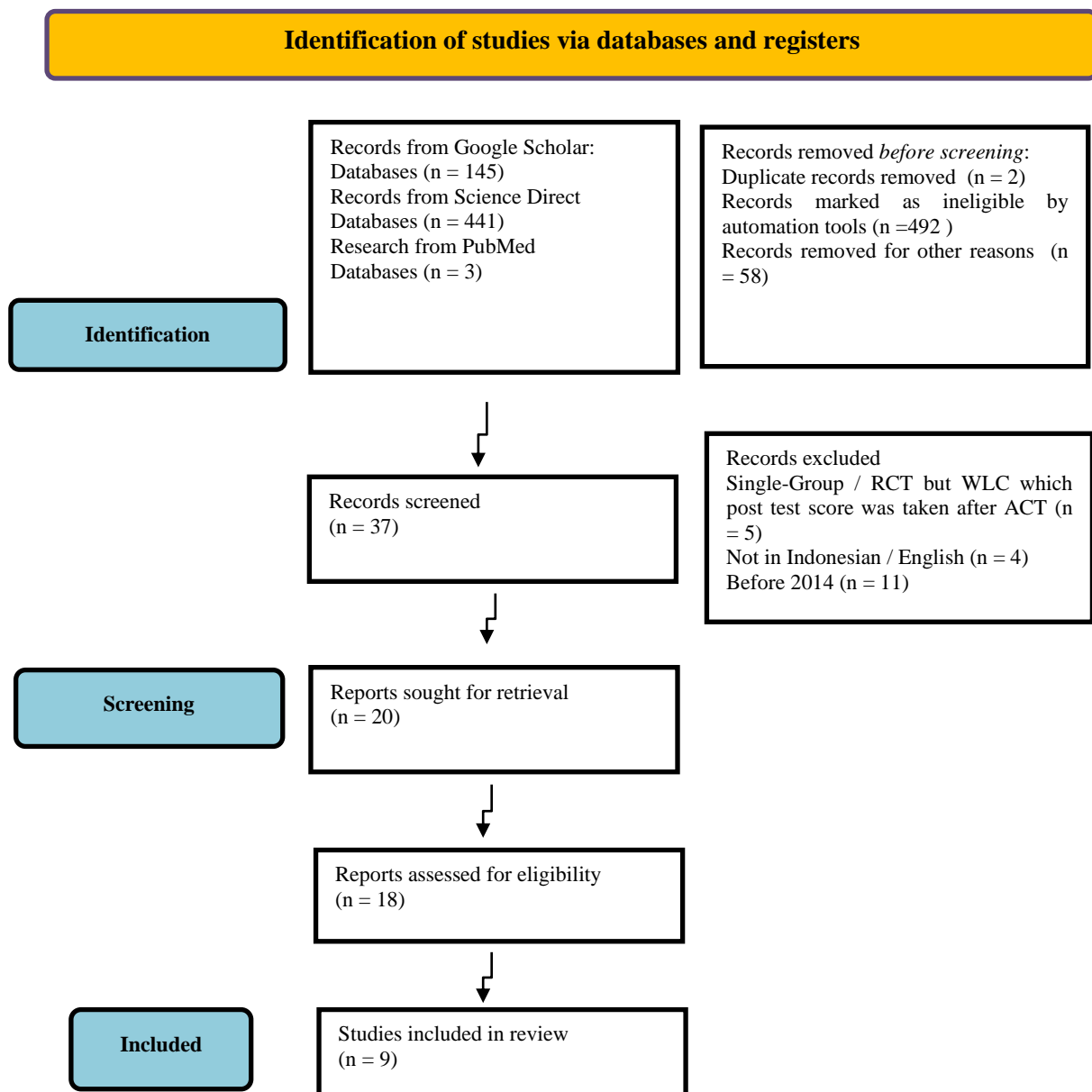


Figure 1. Research Model using (PRISMA) Guideline 2020

RESULT AND DISCUSSION

After conducting a thorough search, the researchers identified nine studies that met the inclusion criteria. A meta-analytical test was performed using Jamovi 2.3.21. The following is a list of studies included in this research for meta-analytical evaluation.

Table 1. List of Research Journals and Results

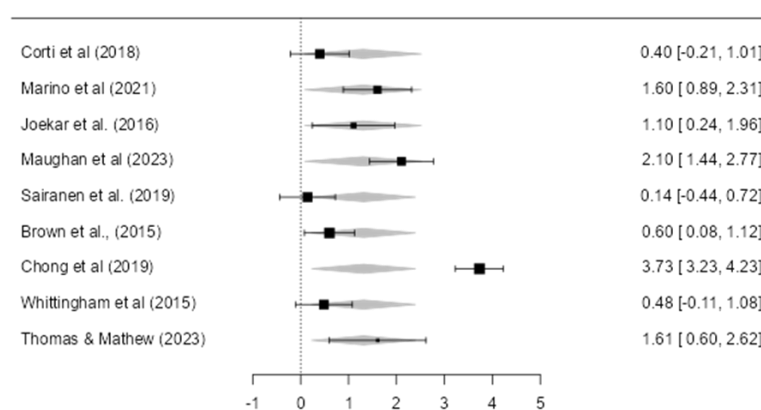
Author (Year)	Measuremen t of Stress	Method	Control Group Treatment	I ²	95% CL	
					UB	LB
Corti et al (2018)	PSI	12-sessions group format every 2 weeks in 1.5 hour/session	No treatment	0.40	-0.21	1.01
Marino et al (2021)	PSI-SF	Group based in 24 weeks	Parent Training	1.60	0.89	2.31
Sairanen et	DASS-21	Individual web-	No treatment	0.14	-0.44	0.72

al. (2019)	(Stress)	based in 10 weeks						
Brown et al., (2015)	DASS-21 (Stress)	Group-based	Care-as-usual	0.60	0.08	1.12		
Chong et al (2019)	DASS-21 (Stress)	4 weekly sessions of group-based ACT integrated with asthma education	Family counseling and asthma education	3.73	3.23	4.23		
Whittingham et al (2015)	DASS-21 (Stress)	2-hour group-based	SSTP	0.48	-0.11	1.08		
Thomas & Mathew (2023)	PSS	Individual sessions	24 CBT	1.61	0.60	2.62		
Joekar et al. (2016)	DASS-21 (Stress)	8-week group based	Treatment as usual	1.10	0.24	1.96		
Maughan et al (2023)	DASS-21 (Stress)	3 sessions group Workshops	No treatment	2.10	1.44	2.77		

Table 2. Heterogeneity Statistics

Tau	Tau²	I²	H²	R²	df	Q	P
1.185	1.4043 (SE= 0.8154)	93.01 %	14.310	0%	8.000	134.398	<.001

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Figure 2. Forest Plot

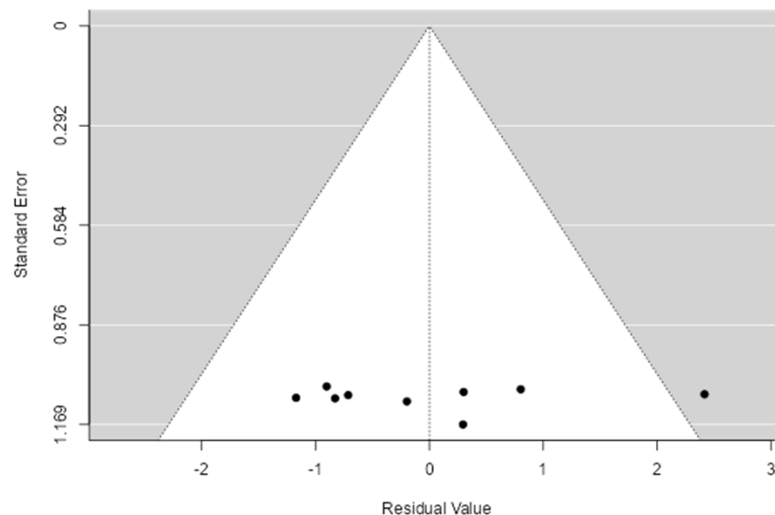


Figure 3. Standardized Mean Differences

As shown from Figure 2, data is significant statistical heterogen with $I^2 = 92.1\%$ ($\geq 80\%$) therefore a random effect test is conducted. Figure 3 shows an effect size of 1.31 as a large effect size group. This means ACT has a big impact on reducing stress in parents. Table 1 shows most studies use DASS-21 to measure stress in parents, since this measurement could look up not only the stress aspect but also depression and anxiety intensity as well. However in this study the authors solely focus on the Stress aspect of DASS-21. Parents of autistic children are often used as participants of ACT Intervention experiments to reduce stress. Study of Chong et al (2019) shows a highest lower bound and upper bound, which means this study has the largest score of effectiveness using ACT to reduce parents' stress. Eager regression score of 0.960 ($p > .01$) shows no publication bias to this analysis.

Discussion

This review shows ACT has a high probability of success in reducing parents' stress ($I^2 = 92.1\%$) compared to other treatments such as parent training, CBT, counseling, care-as-usual, or even with no intervention given. This is different from previous similar studies about ACT effect toward stress in family caregivers by Han et al. (2021), which only showed a small effect compared to control groups ($SMD = 0.30$) and moderate effect in pretest-posttest design ($SMD = 0.54$). Chua & Shorey (2021) meta analytical review also shows a moderate impact of ACT and Mindfulness-Based Intervention at decreasing depression, stress, and anxiety among parents of developmental disabilities children with no significant differences. This becomes a novelty of present's meta analytical study.

ACT intervention focuses on psychological flexibility which helps parents to find their own internal resources to handle problems (Marino et al., 2021, Thomas & Matthew, 2023). Keypoint of ACT is asking parents to embrace their own feelings and thoughts instead of denying or fighting their existences, even more feeling guilty (Thomas & Matthew, 2023). The process was relaxing and positive, thus helping parents to have a sense of competence to face stressful situations (Maughan et al., 2023) and understanding their children's situations. Moreover, the feeling of competence also decreases parents' perception of children's disruptive behavior such as oppositional, noncompliance, tantrum, and aggression (Marino et al, 2021). This explanation represents causes of significant effectiveness of ACT towards declining scores of parents' stress.

Table 1 shows studies with large effect size ($I^2 > 0.8$) has group-based ACT interventions, with study conducted by Thomas & Matthew (2023) as the only exception which used individual sessions but in a longer period. This finding indicates ACT

intervention works more effectively in group format, thus more commonly conducted than individual sessions. This format provides parents a space to share experiences one to another as of having positive social support (Maughan et al., 2023). Studies conducted by Chong et al. (2019) and Maughan et al. (2023) show the biggest effect size in this meta-analytical review. Similarities of these studies are using group-based format in moderate length of periods (3 to 4 sessions), also given to parents of children with biological problems. With the help of education related to their children's condition, parents understand more about their children's situation and how to handle their symptoms. Study by Marino et al., (2021) with large effect size also provides parent training of parents with autistic children to train participants how to handle their autistic kids. Ambiguity is one of the key factors of stress in individuals. Understanding their situation and how to solve every challenge will help individuals to reach a relaxing condition. This might be the right explanation for why Chong et al achieves the most significant effectiveness of ACT in this study.

On the other hand, studies by Corti et al. (2018) and Brown et al. (2015) show a moderate effect size with similar scores. Both were conducted in group format as well. Why do these studies have different results of effectiveness? First, in Corti et al. (2018), there was a declining mindfulness awareness and no change of cognitive fusion after ACT was given. Authors argued these two aspects need a longer period of time to show changes. In this study, ACT was given to parents whose autistic children started their EIBI (Early Intensive Behavioral Intervention), which probably limited the results of parents' stress score in post-test and at the end did not live up to the authors' expectation. In Brown et al.'s case, ACT was given along with SSTP (The Stepping Stones Triple P). ACT was conducted only in 2 sessions, whereas SSTP in 9 sessions. This may be the reason for lower effectiveness of the ACT role.

The lowest effect size is in Sairanen et al. study using individual web-based. This indicates ACT is better conducted face-to-face with the help of therapist's guidance in every step of treatment. Web-based ACT provides an easier way for individuals to be treated using this method. However, improvement is needed to create more accurate content in order to optimize treatment. Authors didn't find the exact weakness of their web intervention, therefore further research is needed.

It is deeply regretted that ACT intervention studies for parents in RCT are still a few. This becomes the main limitation of present review. In context of location, authors didn't find any suitable study in Indonesia. There was only one study in Indonesia with ACT in mothers but using a single-group with no comparison. Further research should measure the effectiveness of ACT in controlled groups focusing on Indonesia in order to show effectiveness of this intervention in different cultures.

CONCLUSION

The aim of this study is to show how impactful ACT is to decrease stress in parents. This meta analytical review from the last 10 years research shows a large effect size which means ACT has been effectively decreasing stress in parents. Previous meta-analytical study of ACT towards stress shows small to moderate effects. This becomes a novel finding. ACT shows higher effectiveness in group-based with 3 to 4 sessions compared to months or longer periods of time. Combination of education about children's condition and correct parenting will also help parents to feel more assured to face the stressful situation of their parenting role. DASS-21 has been commonly used to measure parents' stress intensity since this measurement provides a more holistic view of participants. Further research of ACT toward parents' stress should be conducted with focus on the Indonesian context.

ACT is a growing field. Studies regarding ACT in parenting context are still limited for the past 10 years. This study shows a significant effectiveness of ACT method to decrease parenting stress. Further studies should be focusing more on comparing web-based and onsite

ACT interventions, also varying cultural context especially within Indonesia using controlled groups to show better comparison.

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