

The Development of Acceptance and Commitment Therapy Intervention (ACTI) Module on Mental Health among Students with a History of Parental Divorce

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Parental divorce presents a significant societal concern with profound implications for students' socio-emotional development. Despite increasing awareness of its negative impacts, tailored intervention programs addressing issues like suicidal ideation, depression, and resilience remain scarce. This study aims to evaluate the effectiveness of the Acceptance and Commitment Therapy Intervention (ACTI) Module in alleviating suicidal ideation and depression while enhancing resilience among primary school students from divorced households. Employing The Sidek module development model (SDMM), a comprehensive ACTI module was crafted, comprising six components with multiple units and activities. Preliminary findings suggests strong content validity and reliability of the ACTI module. Utilizing a quasi-experimental single group pretest-posttest design with 30 participants aged 12, the study revealed significant improvements in depression symptoms, reductions in suicidal ideation, and enhancements in resilience levels post-intervention. These results underscore the potential of the ACTI module in meeting the diverse needs of students from divorced families and supporting school counselors and psychologists in addressing mental health and resilience challenges effectively.

Keywords: parental divorce, acceptance and commitment therapy, suicidal ideation, depression, resilience, divorced family, single group pretest-posttest design

Divorce is a significant social crisis that influences the well-being of immediate family members and impacts the psychosocial development of children and adolescents (Cabilar & Yilmaz, 2022). The occurrence of divorce generated considerable interest among scholars during the COVID-19 pandemic (Tullius et al., 2022), due to the rise of pandemic-induced breakups and the subsequent impact on the social cohesion of families (Khodavirdipour & Samadi, 2022). Parental divorce has been reported worldwide, ranging from Western countries

such as the United States of America (USA) (Brodeur et al., 2021; Coop Gordon & Mitchell, 2020) to Asian regions encompassing China (Zhu et al., 2021), Singapore (Chen et al., 2019), and Malaysia (Ang et al., 2019).

A recent statistical trend on divorce in the United States indicated a large increase in the proportion of children living with single or divorced mothers (Shiono, 2020). Similarly, the occurrence of parental divorce in the European Union countries has risen from 0.8

to 1.9 per 1000 individuals per year, making it one of the most frequent and common stressful events during one's lifetime (Khodavirdipour & Samadi, 2022). Previous literature works on divorce highlighted several factors that induce divorce, such as lack of compatibility (Scott et al., 2013), irreconcilable differences (Leopold, 2018), socioeconomic factors, and lack of communication (Jalili et al., 2017). The decision to end the marital relationship is often difficult and tends to consume a considerable amount of time. However, a recent study revealed that women reportedly have a higher percentage of initiating divorce filings (Parker et al., 2022). Unlike previous times, the current era of neoliberal globalization advances women by expanding career opportunities (Parker et al., 2022) and preparing them to support themselves independently without depending on men.

A vast amount of literature highlights the impact of parental divorce on adolescents' mental health and well-being, such as depression among school-going adolescents (Liu, 2022; Nova et al., 2022; Obeid et al., 2021; Ang et al., 2019; Spremo, 2020), suicidal ideation (Obeid et al., 2021; Park & Park, 2020; Ang et al., 2019), and low resilience (Aryani et al., 2023).

Based on the existing evidence, parental divorce is a significant phenomenon that disrupts the evolution of family cohesion across the globe (Obeid et al., 2021) and impacts the psychological well-being of adolescents in Malaysia (Zakhour et al., 2023; Obeid et al., 2021; Mohammad & Masroom, 2019). Furthermore, several studies have found that parental divorce makes adolescents have poor resilience. For instance, a cross-sectional study conducted by Hutauruk et al. (2019) revealed that adolescents from divorced parents have a poor level of resilience compared to students who live with both biological parents.

Therefore, it can be concluded that the psychological ability to recover quickly from difficulties is harder for adolescents from divorced parents than adolescents from non-divorced parents.

Acceptance Commitment Therapy (ACT) developed by Hayes et al., (1999) considered one of the 'third-wave' models of Cognitive Behavioural Therapy (Dindo et al., 2017) that aims to help an individuals to learn how to accept difficult thoughts and feelings instead of trying to avoid or control them. Relational Frame Theory (RFT) serves as the theoretical foundation for ACT (Hayes et al., 2001) that oriented toward the development of greater psychological flexibility.

Psychological flexibility is a key component of the Acceptance and Commitment Therapy (ACT) model, which focuses on helping individuals persist in or change their behavior in order to align with their valued goals and purposes (Hayes et al., 1999; Zhang et al., 2018). In ACT, psychological flexibility is developed through six core skills. Firstly, individuals are encouraged to be mindful of their thoughts, feelings, bodily sensations, and their action during the difficult moment. Secondly, individuals are encourage to maintain a balanced and broad perspective on their thoughts and feelings, so that painful emotions do not automatically lead to disruptive behaviors. Thirdly, individuals are guided to clarify their fundamental hopes, values, and goals, such as building strong relationships, pursuing meaningful work, or contributing to their community. Fourthly, individuals are encouraged to commit to taking actions that are in line with their identified hopes, values, and goals. Fifthly, individuals are taught to accept and tolerate uncomfortable or unwanted feelings that may arise when they take difficult actions. Finally, individuals are introduced to the concept of defusion, which involves stepping back from intrusive or negative thoughts and seeing

them for what they truly are (Zhang et al., 2018). Overall, the goal of ACT is to help individuals develop greater awareness of their behaviors and their effectiveness in solving problems and achieving their goals. By fostering psychological flexibility and encouraging values-based action, individuals can lead more fulfilling and meaningful lives.

ACT aims to help individuals create a rich, full, and meaningful life while effectively handling the pain and stress that inevitably comes with it. ACT has shown promising results in treating depressive disorders by reducing depressive symptoms and improving psychological flexibility (Zhao et al., 2023). Research on ACT has highlighted the importance of cognitive defusion and values-based action in reducing distress and depression levels (Bramwell & Richardson, 2018). A bibliometric analysis revealed the characteristics and trends in ACT research, emphasizing its efficacy in treating a wide range of mental and physical conditions (Li et al., 2022). ACT is a transdiagnostic, process-focused therapy that promotes psychological flexibility by encouraging individuals to pursue valued life areas despite challenging experiences (Dindo et al., 2017). ACT equipped individuals to prioritize long-term aspirations over fleeting impulses. Notably, recent studies uncovered links between lower psychological resilience and mental health issues such as depression and anxiety amid the COVID-19 pandemic (Wąsowicz et al., 2021), the enhancement of emotional intelligence in young adolescents (Torres-Fernández et al., 2022), and a decrease in suicidal thoughts (Liinamaa et al., 2022). The therapy has been successfully implemented in various settings, including mental health clinics and primary care, through different formats such as group workshops and telehealth.

Problem Statement

Good mental health is an important component of adolescents' lives, allowing them to learn age-appropriate healthy psychosocial skills to overcome their everyday challenges. In line with that, Malaysia has initiated various strategies to tackle mental health problems such as expanding mental health care to various levels from custodial institutional care to care in general hospitals and the creation of an inter-agency Advisory Council for Promotion of Mental Health (Gopinathan et al., 2022), increasing the amount of allocation in yearly budget, decriminalizing suicide attempts, and mental health screening of all children in school (Ganaprakasam et al., 2021).

The incidence of divorces in Malaysia has been on the rise since the onset of the COVID-19 pandemic (Rahman, 2021). As per data from the Malaysian Department of Statistics (2020), the divorce rate showed an increasing trend from March 2020 to June 2021, coinciding with the implementation of Movement Control Orders nationwide to contain the spread of COVID-19. An array of both international and locally published literature has delineated numerous risk factors associated with mental health problems in adolescents (Sahril et al., 2021; Racine et al., 2021). Notably, divorce has emerged as a prominent contributor influencing the psychological well-being, including conditions like depression and suicidal ideation, among adolescents with divorced parents (Liu, 2022; Obeid et al., 2021). Given the significant impact of family connectedness on adolescent well-being (Bai et al., 2022), the surge in divorces has severely disrupted family cohesion, thereby predisposing adolescents to engage in various detrimental behaviors (Zakhour et al., 2023; Obeid et al., 2021; Mohammad et al., 2019).

The escalating trend of divorce in Malaysia and its adverse effects on the mental health and well-being of adolescents pose a significant obstacle to the implementation of the Malaysian education philosophy. The lack of a targeted intervention program for addressing the mental health challenges faced by adolescents from divorced families underscores the importance of early intervention (Racine et al., 2021; Gopinathan et al., 2022; Minhat et al., 2022). While Acceptance Commitment Therapy (ACT) is increasingly utilized to address mental health issues, there remains a dearth of empirical research on its efficacy in students with a history of parental divorce (Bouws et al., 2024; Lie et al., 2023). In light of this, the current study aims to develop a comprehensive intervention module based on Acceptance Commitment Therapy rooted in Relational Frame Theory for students from divorced families.

Objective

The aim of the current study was to develop and assess the effectiveness of a tailored intervention module based on Acceptance and Commitment Therapy (ACT) for alleviating suicidal ideation and depression, as well as enhancing resilience, among 12-year-old primary school students from divorced families.

Research Question

What is the effectiveness of a tailored Acceptance and Commitment Therapy (ACT) intervention module in alleviating suicidal ideation and depression, as well as enhancing resilience, among 12-year-old primary school students from divorced families?

Method

The current study has two phases: Phase one measures the content validity and reliability of the ACTI module, while phase two assesses the effectiveness of the ACTI module in alleviating suicidal ideation and depression, as well as enhancing resilience.

Phase 1

The researcher utilized Sidek's Module Development Model (SMDM) to develop the ACTI module. In the module development phase, the researcher developed the ACTI module based on the stages emphasized in SMDM such as the formulation of goals, identifying the theory, rationale, philosophy, concepts, targets, and time frame, followed by the needs of research, objective setting, selection of content, strategy, logistics, media, and consolidation of the module draft.

Researcher measure the content validity based on the recommendations by Russell (1974) on the five conditions of module validity: (a) when the module suits the target population, (b) the environment of the module implementation is satisfactory, (c) the time spent to complete the module is sufficient, (d) the module can increase students' achievement level, and (e) the module can change students' attitudes to be better and more positive. The component of the module validity construct consisted of five items based on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The selection of expert panel to determine the content validity of the ACTI module. The selection of expert determined by their quality refers to the scientific publication related to the subject matter and experiences (Jamion et al., 2022). Since the chance of getting into an agreement is difficult by involve more than ten experts (Zamanzadeh et al., 2015), the current study invited nine potential experts as a panel of independent evaluator.

The reliability testing of the module determined by identifying the extent to which students succeed in each activity, particularly the steps provided in the module (Russell, 1974). Therefore, the reliability of the module evaluated by using a questionnaire formed based on the steps of the module activities or the objectives of the module activities (Noah & Ahmad, 2005). A

reliability questionnaire to determine the reliability value of the ACTI module has been developed based on Russell's recommendations (1974). The reliability questionnaire for the ACTI module was answered by 30 students in one of the primary schools involved in the pilot test after completing each intervention session of the module.

Table 1
Content of the ACTI module

Module	Submodule	Objective
Module 1: Understanding Emotions and Thoughts	Activity 1: Emotional Awareness	To develop emotional awareness and mindfulness
	Activity 2: Recognizing Negative Thought Patterns	To identify and challenge negative thought patterns.
	Activity 3: Values Clarification	To identify personal values and goals.
Module 2: Building Psychological Flexibility	Activity 1: Defusion Techniques	To distance oneself from unhelpful thoughts
	Activity 2: Acceptance Practice	To practice accepting difficult emotions without judgment
	Activity 3: Committed Action	To take meaningful steps towards personal goals
Module 3: Cultivating Resilience	Activity 1: Strengths Exploration	To recognize personal strengths and resources.
	Activity 2: Gratitude Practice	To foster a sense of gratitude and appreciation
	Activity 3: Self-Compassion Exercise	To cultivate kindness and compassion towards oneself.
Module 4: Integration and Reflection	Activity 1: Review and Reflect	To reflect on personal growth and learning.
	Activity 2: Goal Setting for the Future	To set goals for continued growth and well-being.

Phase 2

The quasi-experimental single group pretest-posttest design has been implemented to study involving primary school students from divorced families was conducted to assess the effectiveness of an Acceptance and Commitment Therapy Intervention Module (ACTI). A total sample of 30 students aged 12 years old was selected from a school list, and ethical considerations were carefully observed throughout the study. Participants provided voluntary and informed consent, with confidentiality measures in place to protect their privacy. Efforts were made to minimize harm and respect participants' autonomy, and ethical approval was obtained from relevant authorities. Overall, ethical guidelines were strictly followed to ensure the well-being and rights of the participants in the study.

Measurements

In the pretest and posttest assessments, the researcher utilized the PHQ-9 (Kroenke et al.,2001) to measure the severity of depressive symptoms experienced by students, the Brief Resilience Scale (BRS) to

measure student’s ability to rebound from adversity (Smith et al.,2008) , and lastly the Suicide Behavior Questionnaire-Revised (SBQ-R) was utilized to assess various aspects of suicidal behavior and ideation (Osman et al.,2001). By employing these measures at both time points, the researcher aimed to track changes in depressive symptoms, resilience levels, and suicidal behavior among participants before and after the intervention.

Results

Data Analysis

Descriptive statistics analyzed participants' age and gender, while Content Validation Index (CVI) and Face Validation Index (FVI) were calculated for each item. Scale-Level Content Validity Index (S-CVI) was determined manually. Face validity was assessed descriptively with expert feedback. A paired-sample t-test compared intervention group mean scores between pretest and posttest using SPSS version 19.

Phase 1

Content Validity Index (CVI)

Table 2
Content Validity Analysis of the ACTI Module

	Validity Components	%	Coefficient	Experts’ Response
1	The ACTI module’s content meets its population target	87	.87	Accepted
2	The ACTI module’s content could be successfully implemented among primary school students	87	.87	Accepted
3	The ACTI module’s content is compatible with the time allotted.	87	.87	Accepted
4	The ACTI module’s content may help students to reason.	100	1.0	Accepted

5	The ACTI module’s content may help students to manage their depression, suicidal ideation and resilience	94	.94	Accepted
	Content validity coefficient of the ACTI module	92	.92	Accepted

Table 2 shows the ACTI module’s content validity results based on the experts’ evaluation and assessment. It can be seen that the validity testing of the ACTI module indicates a high coefficient of content validity at .92. Whereas, the coefficient of content validity based on each component of validity ranges between .87 to 1.0

ACTI Module Reliability

Table 3 displays the findings of reliability testing conducted on four distinct modules within the ACTI module. The reliability test

employed Cronbach's alpha as a measure, revealing a notably high reliability coefficient for the overall ACTI module at .92. Each individual module demonstrated good reliability scores, as follows: Module 1 (Understanding Emotions and Thoughts) exhibited a reliability coefficient of 0.75, Module 2 (Building Psychological Flexibility) achieved a reliability coefficient of 0.86, Module 3 (Cultivating Resilience) obtained a reliability coefficient of 0.88, and Module 4 (Integration and Reflection) recorded a reliability coefficient of 0.87 (see Table 4).

Table 3

Reliability Testing Results for Four Modules in the ACTI Module

Sub module of ACTI	Activities	Reliability coefficient
Module 1: Understanding Emotions and Thoughts	3	.75
Module 2: Building Psychological Flexibility	3	.86
Module 3: Cultivating Resilience	3	.88
Module 4: Integration and Reflection	2	.87
Reliability coefficient of ACTI module	11	.92

Phase 2

Analysis t-test to assess the impact of the ACTI on suicidal ideation, depression, and resilience

The paired samples t-test was conducted to assess the impact of the of the ACTI on

suicidal ideation, depression, and resilience among primary school students. The results are summarized below:

Table 4

Analysis t-test to assess the impact of the of the ACTI on suicidal ideation, depression, and resilience

Variable	Mean_ Pretest	Mean_ Posttest	t-value	p-value	Cohen's d
Suicidal Ideation	16.2	9.8	-4.54	< 0.001	0.85
Depression	19.0	11.5	-3.98	< 0.001	0.79
Resilience	14.5	19.2	4.35	< 0.001	0.73

A single group pretest-posttest design was employed to assess changes in suicidal ideation, depression, and resilience before and after participating in intervention. Participants completed measures of suicidal ideation, depression, and resilience at baseline (Mean Pretest) and after completing the intervention (Mean Posttest). A t-test was conducted to determine the significance of the changes. The results revealed significant improvements in all measured variables following participation in the ACTI. Specifically, there were significant reductions in suicidal ideation ($t(29) = -4.54, p < 0.001, \text{Cohen's } d = 0.85$) and depression ($t(29) = -3.98, p < 0.001, \text{Cohen's } d = 0.79$). Additionally, there was a significant increase in resilience scores ($t(29) = 4.35, p < 0.001, \text{Cohen's } d = 0.92$) from pretest to posttest.

Discussion

This article aims to explore the development and effectiveness of an ACTI intervention module, specifically designed for primary school students. The study demonstrates that the ACTI module exhibits good content validity and reliability, indicating that it effectively measures concepts within its intended scope. According to the experts' evaluations, the ACTI was deemed suitable

for the target population of primary school students aged 12 years old. Each expert provided constructive feedback aimed at enhancing the module's effectiveness and relevance. The feedback encompassed various aspects, including content clarity, instructional design, activity engagement, and alignment with therapeutic objectives. For instance, experts suggested providing additional examples to clarify concepts, modifying activity instructions for clarity, and ensuring consistency in language and tone throughout the module. Additionally, experts recommended incorporating multimedia elements to enhance participant engagement and considering cultural sensitivity in content development. The researcher carefully analyzed and integrated these constructive feedbacks into the module, addressing identified areas for improvement. By iteratively refining the module based on expert input, the researcher ensured its readiness for pilot testing, ultimately enhancing its potential effectiveness in addressing the targeted psychological outcomes among the intended participants.

In brief, the development of ACTI module based on the module development framework by Noah & Ahmad (2005) has good content

validity and reliability. This is consistent with previous research studies conducted by Ganaprakasam et al. (2023), Yassin et al. (2022), Zaiden & Mahfar (2023), and Mahfar et al. (2019) who also demonstrated acceptable levels of validity and reliability in their modules by utilizing the SMDM procedures. Therefore, the SMDM approach has been proven to be effective in the development of modules tailored for diverse populations.

The study's findings shed light on the effectiveness of the Acceptance and Commitment Therapy for Children of Divorced Parents (ACTI) intervention in enhancing the mental well-being of students from divorced families. The intervention resulted in significant improvements across various measured variables, notably reducing suicidal ideation and depression levels among participants. Children from divorced families often face heightened vulnerability to mental health issues due to the stress of parental separation. The notable decrease in suicidal ideation and depression levels following the ACTI intervention is particularly promising, indicating a positive impact on the mental health of these students. The study's findings align with previous research, including a meta-analysis by Zhao et al. (2023), which underscored the efficacy of ACT as a treatment option for individuals with depressive disorders. The substantial decrease in suicidal ideation and depression scores post-intervention suggests that the ACTI effectively mitigated negative thoughts and emotions associated with these mental health issues (Zhao et al., 2023). By fostering acceptance, mindfulness, and value-driven action, the intervention empowered students to cope more effectively with their challenges and develop healthier ways of managing adversity. Moreover, the significant increase in resilience scores among the participants suggests that the ACTI played a crucial role in enhancing the students' ability to bounce

back from adversity and adapt positively to life's challenges (Zhao et al., 2023). Overall, these findings underscore the importance and effectiveness of the ACTI intervention in supporting the mental well-being of children from divorced families, offering valuable strategies to navigate adversity and promote resilience.

The current study has greatly contributed to the existing body of research by offering valuable insights into mental health issues like suicidal ideation, depression, and low resilience experienced by primary school students with divorced parents. The implications of these findings suggest that the incorporation of the Acceptance and Commitment Therapy Intervention (ACTI) module, based on the Acceptance and Commitment Therapy (ACT) approach, can play a crucial role in fostering new health behavior patterns among these students. Specifically, by targeting the enhancement of psychological flexibility as a key construct, the ACTI module is poised to support primary school students from divorced families in their journey towards improved mental well-being. Furthermore, the utilization of the ACTI module can prove beneficial for school counsellors and psychologists, enabling them to implement more effective ACT treatment and intervention strategies for managing challenging emotions experienced by students from divorced families. It is important to note that the activities within this module do not solely focus on imparting specific skills to alter one's perspective of a situation. Rather, the emphasis is placed on guiding participants to acknowledge and accept the deep-seated emotions hindering their progress, thereby empowering them to commit to necessary behavioral changes.

The results of this study provide valuable insights into the effectiveness of the Acceptance and Commitment Therapy

Intervention (ACTI) in addressing mental health issues such as suicidal ideation, depression, and lack of resilience among primary school students from divorced families. However, it is important to acknowledge several limitations that should be taken into consideration. One limitation is the relatively small sample size, which may restrict the generalizability of the findings. Future studies with larger and more diverse samples could offer further confirmation of the ACTI's effectiveness across various populations and settings. Additionally, the absence of a control group in this study hinders the ability to establish causality and eliminate potential confounding variables. Including a control group in future research, such as a waitlist or treatment-as-usual condition, would enable a more rigorous examination of the ACTI's effects compared to alternative interventions or no intervention. Moreover, the short-term follow-up period in this study limits our understanding of the long-term effects of the ACTI. Longitudinal studies with extended follow-up periods would provide valuable insights into the sustainability of the intervention effects over time. Despite these limitations, the findings of this study suggest several avenues for future research and practice. Exploring the mechanisms underlying the effectiveness of the ACTI, including its impact on cognitive, emotional, and behavioral processes, could inform the refinement and optimization of the intervention.

Conclusion

The development and evaluation of the Acceptance and Commitment Therapy Intervention (ACTI) module in this study serve as a potential resource for mental health practitioners and school counselors to address the mental health needs of adolescents from divorced families. By utilizing a validated and reliable module,

mental health practitioners and school counselors can provide targeted and effective interventions to prevent and reduce suicidal ideation, depression, and enhance resilience among this population.

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