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Positive Parenting Program for Attention Deficit Hyperactivity Disorder: Maternal Perspective Shifts and Child Behaviour Problems Reduction in a Clinical Trial

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Declaration

I declare that, except where explicit reference is made to the contribution of others, this dissertation is substantially my own work and has not been submitted for any other degree at the Arab American University or any other institution

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Dedication

This thesis is dedicated to the memory of my father, whose unwavering belief in my potential and constant encouragement continues to be a lasting source of inspiration, the dedication goes also to my mother, whose boundless support has been a pillar of strength and a guiding light throughout this journey.This work is also dedicated to the innocent souls the martyrs in Gaza, who, in their pursuit of a better life, were deprived of the opportunity to fulfill their academic dreams due to the devastating impact of war…May their sacrifices never be forgotten and may this humble contribution honor their aspirations, dedication goes also to my husband and my children for their patience and support. A special dedication goes to the struggling mothers of children with ADHD, their perseverance and love provide their children with hope and strength. May this work honor their resilience and sacrifices.

Nadia Abed Alrahman Othman Amr

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Abstract

Purpose: This study aims to assess the effectiveness of the Triple P (Positive Parenting Program) on mothers of children with ADHD. It focuses on evaluating changes in parenting attitudes, maternal sense of competency, and reductions in child behavioural problems following the intervention.

Methods: The research utilized a randomized controlled trial (RCT) design. A total 64 mothers of children diagnosed with ADHD, aged 6 to 13 years, were recruited from a child mental health clinic. After randomization, participants were divided into two groups: the intervention group, which participated in the Group Triple P Program, and the control group. Both groups were evaluated pre and post the intervention using standardized instruments—the Strengths and Difficulties Questionnaire (SDQ), Parenting Scale (PS), and Parenting Sense of Competence (PSOC). Differences between the two groups were analysed using independent t-tests to compare pre- and post-intervention mean scores.

Results: The findings of the randomized controlled trial highlight the effectiveness of the Triple P program in reducing behavioural challenges and enhancing maternal outcomes. Mothers in the intervention group

reported a decrease in child behavioural problems (t (61) = -1.97, p = .053) *d* = 0.48, with a medium effect size compared to the control group. Additionally, the intervention significantly improved prosocial behaviour among children (t (62) = 2.529, p = .01) with a large effect size *d* = 0.64.The program also had a positive impact on maternal outcomes, with participants in the intervention group demonstrating an increased sense of competency (t(62) = 2.30, p = .02)in medium to large effect size*d* = 0.59 . Furthermore, mothers exhibited improved parenting attitudes, as reflected by the mean score (M = 3.3, SD = 1.4, p = .01) *d* = -0.51, a medium effect size.

Conclusion: The findings suggest that the Triple P program maybe highly effective intervention for equipping mothers with essential skills to manage the behaviour of children with ADHD while supporting the child's mental well-being.

Keywords: Children, Sense of competency, Triple p, behavioural problems, ADHD.

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List of Definitions and Abbreviations

Abbreviation	Title
ADHD	Attention Deficit Hyperactivity Disorder
CADDRA	Canadian Attention Deficit Hyperactivity Disorder Resource Alliance
MENA	Middle East and North Africa Region
MOH	Ministry of Health
NIS	New Israeli shekel
PS	Parenting Scale
PSOC	Parenting Sense of Competency
PTBM	parent training in behaviour management
RCT	Randomized Control Trial
SDQ	Strength and Difficulties Questioner
Triple p	positive parenting program

Chapter One: Introduction

1.1Background

Attention Deficit Hyperactivity Disorder (ADHD) is a complex neurobehavioural condition that significantly impacts the development and daily functioning of children and adolescents. This disorder can have far-reaching effects, hindering a child's academic and social growth (American Psychological Association, 2013). Notably, ADHD is not just a childhood issue; its symptoms and challenges often persist into adulthood, affecting functional and occupational capacities (DuPaul, 2022). The disorder is frequently associated with disruptive behaviour, poor academic performance, and overall lower life outcomes (APA, 2013). The prevalence of ADHD is substantial and concerning and varies significantly across different regions. In the US, about 8.8% of children aged 3–17 years were diagnosed with ADHD, according to the 2016–2017 National Survey of Children's Health, while a national parent survey in 2016 indicated that 9.4% of

children have ADHD(NSCH,2019). Internationally, studies show varying rates. For example, in Bethlehem City, Palestine, approximately 45.9% of 5th graders were estimated to have a moderate degree of ADHDevaluated by the mothers of the 5th grade in Bethlehem City while(44.7%) with a low degree and (9.3%)with high degree(Abdeen, sh.2012) , while in Gaza City and the West Bank, 4.3% of school children were above the ADHD diagnostic scales cut-off scores of teacher and parent ADHD diagnosis scale (Thabet, A.,2010) In a retrospective study from 2005-2017, (44.4%) of inattention symptoms and (42.8%) of academic problems were the main referral symptoms for both Arabs and Jews, majority of cases were from combined subtype (ADHD- C)(Jaber, L.,2020). Similarly, in Gaza City, 8.4% of children were diagnosed with the combined subtype, compared to 2.7% in the West Bank,teacher evaluations showed slightly different rates, with 5.2% in Gaza and 3.3% in the West Bank(Thabet, A. 2006). In another Thabet (2017) found that the most prevalent ADHD subtype among preschoolers in Gaza City was hyperactive-impulsive. These findings highlight the

widespread impact of ADHD globally, emphasizing the need for effective diagnosis and treatment strategies across diverse populations.ADHD can profoundly impact family dynamics, with research indicating that mothers of children with ADHD often experience heightened feelings of anger, anxiety, and depression, feeling less effective and successful compared to mothers of children without ADHD (Johnston, 2012). Recognizing this, the American Academy of Pediatrics (AAP) has updated its clinical guidelines for diagnosing and treating ADHD in children and adolescents. These guidelines, which have received a high-quality evidence rating (grade A), recommend that pediatric primary care clinicians prescribe evidence-based parent training in behaviour management (PTBM) for children aged four to six years with ADHD (Wolraich et al., 2019). For children aged six to 12, the guidelines advise combining appropriate medication treatments with PTBM and potential classroom interventions. Adolescents aged 12 to 18 years are recommended to receive suitable medications with evidence-based training or behavioural interventions (Wolraich et al., 2019). This approach is

supported by a systematic review study by Evans, et al., (2014), which concluded that behaviour management treatments are a well-established, evidence-based practice for children with ADHD. Complementing these findings, other studies, including those by Frölich et al., (2002) and Halperin et al., (2013), have demonstrated that parent management training and cognitive-behavioural therapy are effective in reducing the core symptoms of ADHD in children, both at home and in school settings. These comprehensive strategies underscore the importance of a multifaceted approach to ADHD treatment, addressing not only the child's needs but also supporting family members in managing the disorder's wide-ranging effects.

Behavioural parent training, rooted in social cognitive theory as articulated by Bandura in 1977, underscores the interplay of environmental and cognitive factors in human learning and behaviour. This training emphasizes the critical role of a safe, nurturing, and warm parent-child relationship in fostering healthy child development and mental well-being. Research by Collins et al., (2000)

highlights the adverse effects of disrupted maternal care, parental distress, and family dysfunction on a child's emotional and social health. Furthermore, the mother's health has been found to significantly impact the child's mental health (Massad, ., 2009).

The quality of parenting plays a pivotal role in a child's well-adjusted and healthy development (Sanders, 2012). Woodward, et al. (1998) found a correlation between behavioural difficulties in ADHD children and the quality of parenting, including the parents' attitudes and roles, which also shape the behaviour prognosis outcome.

Studies consistently recommend incorporating parenting training programs alongside pharmacological treatments for children with ADHD. These programs aim to empower parents with the necessary skills and discipline practices to manage their child's disruptive behaviours. One such effective evidence-based program is the 'Triple P' Positive Parenting Program. Developed to enhance parental confidence, skills, and knowledge, it aims to prevent severe

emotional, behavioural, and developmental problems in children (Sanders et al., 2001). Its effectiveness was demonstrated in Singapore, where parents who completed the program reported lower stress, increased competence, and improved emotional states, alongside reduced children's behavioural problems(Zhou et al., 2017) . A recent meta-analysis study by (Yusuf et al., 2019) supported these findings and recommended incorporating the Triple P program into ADHD intervention plans.

Additionally, a randomized controlled trial (RCT) in Sweden (Stattin et al., 2015) and a study by (Chesterfield et al., 2021)both reported improved parenting behaviour, increased parental competence, and decreased parenting stress following BPT, with a notable reduction in dysfunctional parenting and disruptive child behaviour observed six months post-intervention. However, challenges such as inconsistent parental attendance at these programs have been noted. Studies by Nomanbhoy & Hawkins (2018) and Xie (2013) suggest that leveraging innovative electronic technology for BPT(Behavioural

Parent Training) delivery could address these limitations, facilitating wider participation and overcoming geographical barriers, thus enhancing outcomes for children with developmental disabilities.

1.2 Problem Statement

Providing therapeutic management for children with ADHD presents a multifaceted challenge, particularly in the context of family dynamics and parental involvement. Existing research underscores the crucial role of parents, especially mothers, in influencing the outcomes of children with ADHD (Yusuf et al., 2019). However, there is a notable gap in understanding the specific impact of structured parenting programs on mothers of children with ADHD. This gap is particularly evident in assessing how such programs might alter maternal attitudes, increase their sense of competency, and subsequently lead to reductions in the child's behavioural problems.

The current understanding of how mothers in Palestine perceive and manage ADHD in their children is

significantly limited, particularly in the context of the high prevalence of ADHD in the region. This knowledge gap extends to the effectiveness of the Triple P (Positive Parenting Program) intervention in reducing behavioural symptoms in children with ADHD and its impact on mothers' attitudes. The proposed study aims to address these critical gaps by exploring the influence of the Triple P program on both mothers and their children diagnosed with ADHD. This is especially pertinent given the mother's pivotal role in a child's life and the significant influence her understanding, attitude, and mental health can exert on the child's mental health and overall well-being (Massad, S., 2009). Additionally, this research seeks to address issues related to the inadequacy of existing services and the lack of parental engagement in ADHD management. These factors contribute to the challenges faced by families and healthcare providers in effectively managing ADHD.

1.3 Significance of the Study

As the first of its kind in Palestine, the study aims to significantly influence the management of ADHD symptoms and behaviours in children by enhancing the knowledge and skills of mothers. This empowerment and qualification are expected to translate into improved behaviour and increased functional abilities in children with ADHD, potentially leading to a reduction in academic and social impairments. Additionally, a significant anticipated outcome of this study is the reduction in stress and anxiety experienced by mothers of children with ADHD, which in turn could lead to improved family functioning. This study seeks to provide valuable insights into the cultural and societal factors that shape maternal approaches to managing ADHD. Furthermore, it will evaluate the efficacy of the Triple P intervention in this unique setting, assessing its potential to enhance maternal skills, reduce children's behavioural issues, and improve familial relationships.

Given the significant role that maternal health and knowledge play in the management of ADHD, this research could offer policy makers important implications for developing tailored interventions and support systems for families dealing with ADHD in Palestine. It aims to contribute to the broader discourse on ADHD management, highlighting the need for culturally sensitive and contextually relevant strategies that empower mothers and improve outcomes for children with ADHD, while also addressing the broader systemic issues of service provision and parental engagement.

1.4 Purpose Statement

The overarching goal of this study was to evaluate the comprehensive impact of the Triple P (Positive Parenting Program) intervention on ADHD outcomes. This goal encompasses assessing the program's effectiveness in improving maternal attitudes and sense of competency in managing ADHD, as well as determining its efficacy in reducing behavioural symptoms in children with ADHD.

The specific aims are to:

1. To evaluate the feasibility and cultural acceptability of the Triple P program in the Palestinian context
2. To investigate the effectiveness of the Triple P program in promoting positive attitudes towards managing ADHD among mothers in Palestine.
3. To investigate the effectiveness of the Triple P program in promoting maternal sense of competency among mothers in Palestine.

3. 4. Examine the effectiveness of the Triple P program in reducing children's ADHD behavioural symptoms(hyperactivity and inatention) as perceived by their mothers.

1.5 Research Hypothesis

Hypothesis 1.5.1:

- **H0**: There is no statistically significant improvement in mothers' attitudes towards managing ADHD following the

completion of the Triple P program compared to mothers in the control group.

- **H1**: There is a statistically significant improvement in mothers' attitudes towards managing ADHD following the completion of the Triple P program compared to mothers in the control group.

Hypothesis 1.5.2:

- **H0**: There is no statistically significant increase in the sense of competency among mothers who completed the Triple P program compared to mothers in the control group.
- **H1**: There is a statistically significant increase in the sense of competency among mothers who completed the Triple P program compared to mothers in the control group.

Hypothesis 1.5.3:

- **H0**: There is no statistically significant reduction in ADHD children's behavioural symptoms following mothers' participation in the Triple P intervention program, compared to the control group.

- **H1:** There is a statistically significant reduction in ADHD children's behavioural symptoms following the mother's participation in the Triple P intervention program, compared to the control group.

Hypothesis 1.5.4:

- **H0**: There is no cultural acceptability of the Triple P program in the Palestinian context
- **H1**: There is a cultural acceptability of the Triple P program in the Palestinian context.

1.6 Research Questions

1.What is the feasibility and cultural acceptability of implementing the Triple P program within the Palestinian context?

2. Does the Triple P program promote positive attitudes towards managing ADHD among mothers in Palestine?

3. What is the effect of the Triple P program on maternal sense of competency among mothers in Palestine?

4. Does the Triple P program delivery affect reducing children's ADHD behavioural symptoms?

1.7 Study Variables

Table 1.1 Study variables

Variable	**Conceptual definition**	**Operational definition**
ADHD	"A psychiatric disorder marked by enduring behavioural symptoms of inattention, hyperactivity, and/or impulsivity, interferes significantly with social, adaptive, occupational, and	The diagnosis of ADHD in this study was confirmed by certified psychiatrists based on the DSM5 criteria and following diagnostic interviews. (APA, 2013).

	academic functioning" (APA, 2013)	
Triple P	The Triple P-Positive Parenting Program, created by Sanders and his team at the University of Queensland, Australia (Sanders, 1999, 2001; Sanders et al., 2001), is a comprehensive preventive strategy designed to assist families and promote effective parenting. This program primarily seeks to prevent severe behavioural, emotional, and developmental challenges in children, as well as instances of child	The complete program sessions as recommended by the program developers administered to mothers of children diagnosed with ADHD.(Sanders, 1999, 2001; Sanders et al., 2001)

	maltreatment. It achieves this by bolstering protective family factors and reducing risks associated with child maltreatment. The key aims are: (1) equipping parents with improved knowledge, skills, confidence, self-reliance, coping abilities, and resourcefulness; (2) creating nurturing, secure, stimulating, non-violent, and low-conflict environments for children and adolescents; and (3) promoting children's social, emotional, linguistic,	

	intellectual, and behavioural development through positive parenting practices. The program features five levels of intervention, each progressively more intensive, and is customized for parents of children from birth to 16 years of age (Sanders et al., 2001).	
Parenting Practices	The specific behaviours, actions, and strategies that parents employ in raising and nurturing their children. These practices encompass a wide range of activities, including discipline,	Parenting practices of mothers with children diagnosed with ADHD were assessed using the Parenting Scale, a 30-item self-report tool that evaluates parental discipline methods. This

	communication, supervision, and emotional support, which collectively shape a child's development and well-being (Darling, N., & Steinberg, L. (1993).	scale employs a 7-point Likert format, where a score of 7 reflects a strong likelihood of making a disciplinary error, while a score of 1 represents a high tendency to use effective alternative discipline strategies. (Arnold et al., 1993)
Maternal sense of competency	A parent's perception of their ability to effectively meet the needs of their child and successfully navigate the challenges of parenthood. It encompasses feelings of confidence, adequacy, and proficiency in	Mothers of children with ADHD sense of competency as measured by the Parenting Sense of Competence (PSOC) scale that captures parents' subjective perceptions of their parenting abilities and

	fulfilling parental responsibilities, fostering positive parent-child relationships, and promoting the overall well-being of the child (Jones, T. L., & Prinz, R. J. (2005).	their emotional experiences related to parenting (Gibaud-Wallston & Wandersman, 1978).
ADHD behavioural problems	The DSM-5 describes ADHD as involving patterns of inattention, hyperactivity/impulsivity, or a combination of these behaviours. For a diagnosis, symptoms must be evident in at least two different settings, appear before the age of 12, persist for at least six months, and	Mothers' perceptions of their children's ADHD-related behaviours were assessed using the Strengths and Difficulties Questionnaire (SDQ), a tool with 25 items divided into five scales. Each scale measures distinct aspects: emotional symptoms (e.g., frequent fears,

	significantly impact social, academic, or work-related functioning (APA, 2013).	easily frightened), conduct issues (e.g., often lies or cheats), hyperactivity-inattention (e.g., restless, overly active, struggles to sit still), peer problems (e.g., bullied or picked on by peers), and prosocial behaviour (e.g., shows consideration for others' feelings)(Goodman,1997)
Feasibility and cultural acceptability	The evaluation of a study's viability and practicality is known as feasibility. It entails assessing, resources, and potential obstacles, to ascertain its success. Cultural acceptability refers to the	Recruitment of the eligible within time of the study, in addition to retention of the participants enrolling for the delivery of the program Program Delivery: Assessed by the availability of

	extent to which a proposed interventional program, aligns with the norms values, and beliefs, if consistent with the cultural context of a target population. (Zubieta et al., 2020)	trained triple p trainer with access to program materials. Cultural Acceptability**:** relevancy and sensitivity by mothers' feedback on triple p content, adaptations to materials and content in addition to the changes in parent-child interactions obtained by the outcome measures.

1.8 Theoretical Framework

1.8.1: Social Cognitive Theory

The study is guided by the Social Cognitive Theory (SCT), initially formulated by Albert Bandura in 1977.

Social Cognitive Theory emphasizes the reciprocal interaction between cognitive, behavioural, and environmental factors in shaping human behaviour. The framework is particularly relevant to understanding the complexities of parenting and behavioural interventions, aligning well with the multifaceted challenges posed by attention deficit hyperactivity disorder (ADHD). Within the SCT framework, the central tenet is observational learning or modelling. Individuals, in this case, mothers, learn by observing and imitating the behaviours and attitudes of others. Bandura contends that these observational experiences, coupled with personal experiences and environmental factors, influence individuals' cognitive processes and, consequently, their behaviour. In the context of parenting and ADHD management, mothers' attitudes, beliefs, and perceived efficacy are crucial components that directly impact their interactions with their children.

Application to ADHD and Parenting:

1. Observational Learning: Mothers, as primary caregivers, often shape their parenting styles and strategies based on what they observe in their environment. Through observational learning, mothers may acquire new parenting techniques and coping strategies by participating in structured parenting programs like the Triple P intervention.
2. Modelling: Social Cognitive Theory posits that individuals are more likely to adopt behaviours they observe in role models. In the context of this study, the Triple P program serves as a model for effective parenting strategies. Mothers participating in the program are exposed to positive parenting behaviours, which they may then model in their interactions with their children.
3. Self-Efficacy: The concept of self-efficacy is integral to SCT, emphasizing an individual's belief in their ability to perform a specific behaviour. The Triple P intervention, by enhancing maternal

skills and providing tools for managing ADHD-related challenges, aims to boost mothers' self-efficacy in dealing with their children's behavioural symptoms.

4. Reciprocal Determinism: SCT acknowledges the dynamic interplay between personal, behavioural, and environmental factors. The Triple P program, by addressing both maternal attitudes and children's behavioural symptoms, operates within the framework of reciprocal determinism. Changes in one aspect (e.g., maternal attitudes) can influence and be influenced by changes in another (e.g., children's behaviour).
5. Social Influence: SCT recognizes the role of social influence in shaping behaviour. Through participation in the Triple P program, mothers engage in a social learning process that can lead to attitudinal shifts, increased competency, and ultimately, improvements in the management of ADHD-related challenges.

Implications for the Study: The application of Social Cognitive Theory in this study provides a theoretical foundation to understand the processes through which the Triple P program may influence maternal attitudes, sense of competency, and children's ADHD-related behaviours. By examining the reciprocal interactions between cognitive, behavioural, and environmental factors, the study aims to unravel the mechanisms through which the intervention brings about positive changes in the lives of mothers and their children dealing with ADHD in the Palestinian context. The SCT framework offers a nuanced lens to explore the complexities of ADHD management within the family, aligning with the study's goals of empowerment, behavioural change, and improved familial relationships.

The theoretical origins of Triple P were based on self-regulation theory originally by (Bandura, 1986), and (Sanders et al., 2019),the central aspect is geared toward collaboratively training parents and coaching

practitioners, to supervise, and implement and train in a manner of fidelity (Sanders et al., 2020), self-regulation taught by setting goals, evaluating outcomes and clarifying expectations, to promote personal agency and independent problem solving so practitioners, children, parents, and trainers, using Triple P formulate personal agency, self-management skills and knowledge, to become self-determining, less reliant of external support as part of community-wide public health approach providing cost-effective parenting support interventions.

1.8.2 Development of Core Content

The fundamental parenting skills promoted in the Triple P program align with five essential principles of positive parenting: (1) providing a safe and stimulating environment, (2) fostering a supportive learning atmosphere, (3) practicing assertive discipline, (4) setting realistic expectations, and (5) prioritizing self-care as a parent.

1.9 Conceptual Framework

The conceptual framework illustrates the intervention of triple-p implementation by mothers of ADHD children participation which will increase their perceived sense of competency in managing their children's disruptive behaviours measured by the Parenting Sense of Competency(PSOC) scale, effective parenting style attitude and practices positive change measured by the parenting scale (PS), the proposed empowerment reflect the child behavioural problems reduction, measured by the strengths and difficulties scale (SDQ). The control group does not receive triple p intervention which leads to no change in the sense of competency, parenting attitude and no change in child behaviour .

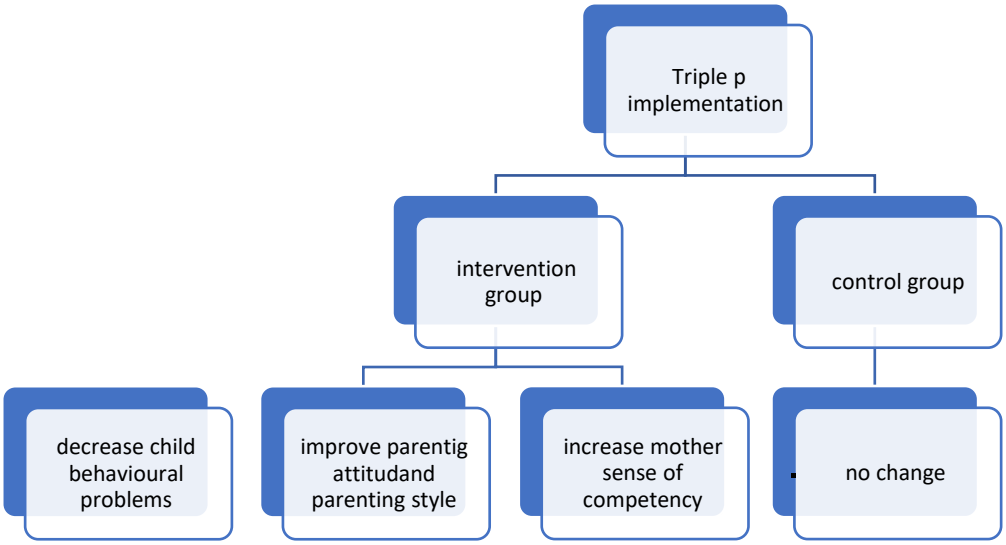

Figure 1.1 Conceptual framework

Chapter Two: Literature Review

2.1 Literature Search Strategy

A comprehensive search was performed across multiple databases, including PubMed, Science Direct, Cumulative Index of Nursing and Allied Health Literature (CINAHL), PsycINFO, EBSCO, and Google Scholar. These databases were chosen for their extensive coverage of journals in medicine, nursing, and healthcare. The search strategy combined index terms and MeSH terms tailored to each database's requirements. Keywords used in the search included “Triple P,” “ADHD,” “Effectiveness of Triple P,” and “Behavioural symptoms reduction.” Publication status was unrestricted, but articles had to contain relevant keywords in the title or abstract, be full-length, peer-reviewed, and written in English. The search was limited to publications from 2010 to 2023 to ensure current evidence.2.2Attention Deficit Hyperactivity Disorder: Symptoms and Diagnostic CriteriaADHD, as outlined in the DSM-IV, presents through three subtypes: inattentive, hyperactive/impulsive, and combined. Symptoms must emerge before age 12, persist for at least six months in multiple settings,

and may shift with age and developmental stages (American Psychiatric Association, 2013). Symptoms of inattention include challenges with focus, careless errors, easy distractibility, and difficulty following instructions. Hyperactivity manifests through behaviours such as excessive fidgeting, difficulty remaining seated, and talking excessively, while impulsivity involves interrupting others, struggling with turn-taking, and acting without forethought (Noordermeer & Oosterlaan, 2023). ADHD often persists into adulthood, with variation in persistence rates based on data sources and assessment methods, which are optimized through both parent and self-reported ratings (Sibley et al., 2017). Prospective studies identify ADHD as a chronic disorder with significant risks for persistence and long-term complications (Barbaresi et al., 2013). Long-term risks include functional impairments, educational challenges, social difficulties, and, in adulthood, risks of unemployment, accidental injuries, depression, substance addiction, and criminal tendencies (Noordermeer & Oosterlaan, 2023). Differentiating ADHD onset and symptom progression is essential to ruling out similar conditions, such as sleep disorders, depressive episodes, and side effects of medications like Keppra (American Psychiatric Association, 2013). The DSM-5 and the

ICD-10 provide ADHD diagnostic criteria, with ICD-10 referring to it as "hyperkinetic disorder." Diagnosis begins when inattention and hyperactivity exceed normal developmental levels and interfere with social, emotional, and cognitive growth across settings like home and school (Dalrymple et al., 2020). However, DuPaul (2022) emphasized that both functional impairment and symptom severity should be considered in assessments. ADHD diagnosis practices must consider developmental nuances, as early temperament in infants and toddlers may indicate ADHD risk, useful for early identification (Joseph et al., 2023). ADHD diagnostic procedures typically include clinician interviews, rating scales, and input from multiple reporters, such as teachers and parents, to provide a well-rounded view of the child's behaviour across contexts (May et al., 2023). Involving multiple reporters enhances diagnostic accuracy by capturing variability in symptom presentation and reducing subjective bias (Mulraney et al., 2022). Common screening tools for children and adolescents include the Vanderbilt ADHD Diagnostic Rating Scale, Conners' Rating Scales, and the Strengths and Difficulties Questionnaire. A review by Mulraney et al. (2021) found that, while most ADHD screening tools have high diagnostic accuracy (measured by AUC), single-

reporter measures showed insufficient sensitivity and specificity for clinical or population-wide screening. Major international guidelines, such as those by NICE, SIGN, CADDRA, the British Association of Psychopharmacology, and the AAP, recommend diagnostic criteria based on DSM or ICD classifications. These guidelines also concluded that additional diagnostic methods, including neuropsychological and psychoeducational assessments, computerized cognitive tests, neuroimaging, EEG, and direct observations, did not enhance accuracy beyond clinician interviews with rating scales (May et al., 2023).

The diagnostic process should include a thorough prenatal, perinatal, and family history, school performance review, and environmental assessment, along with a physical and mental health examination to identify any comorbid conditions (Wolraich et al., 2019). Leveraging advancements in information technology, ADHD360 is a complementary tool that uses machine learning and gameplay to detect ADHD behaviours effectively (Overgaard et al., 2023). Accurate diagnosis is crucial for guiding appropriate treatment, and a systematic review and meta-analysis found that, for each individual using medication without an ADHD diagnosis,

three diagnosed individuals who could benefit from medication do not receive it, with rates estimated at 0.9% and 19.1%, respectively (Massuti et al., 2021). Undiagnosed ADHD can significantly impact mental health, social relationships, and increase the risk of substance misuse, accidents, and criminal behaviour (French et al., 2023).

2.3 Attention Deficit Hyperactivity Disorder: Prevalence

Worldwide prevalence is estimated to be around 5% using the ICD/DSM criteria(Dalrymple et al., 2020). According to the 2016–2017 National Survey of Children's Health, approximately 5.3 million children in the US, or about 8.8% of the population aged 3–17 years, were diagnosed with ADHD (NSCH, 2019). Furthermore, a national parent survey in the USA in 2016 revealed that an estimated 6.1 million children (9.4%) have been diagnosed with ADHD (Danielson, 2018). In a systematic review and metanalysis study in Africa, it was found that ADHD is a serious health problem as it was estimated that the ADHD prevalence estimated to be 7.47%, with a male-to-female ratio of 2.01:1(Ayano et al., 2020). In international contexts, the situation is equally serious. For instance, in Palestine, In a recent study it was found that the

frequency of ADHD signs among Palestinian school-age children was (8.7 %)(Almahmoud et al., 2024). There were no significant differences of prevalence among Arabs and Jews of 18.7%and 17.8% respectively (Shehadeh-Sheeny & Baron-Epel, 2023).Previously in a study focusing on the 5th-grade population in Bethlehem City reported that the prevalence of ADHD was estimated at a moderate degree in 45.9% of children, as evaluated by their mothers, additionally, 44.7% of the children were assessed as having a low degree of ADHD, and 9.3% with a high degree (Abdeen, 2012). In Gaza City and the West Bank, a study by Thabet, A. (2010) found that 4.3% of school children, randomly selected from schools, scored above the cut-off on teacher and parent ADHD diagnostic scales. A retrospective study spanning 2005-2017 revealed that inattention symptoms (44.4%) and academic problems (42.8%) were the primary referral symptoms among both Arab and Jewish children. The majority of these cases fell under the combined subtype of ADHD (ADHD-C) (Jaber, L., 2020). A similar trend was observed in Gaza City, where 8.4% of children were diagnosed with ADHD-C, as per a parental survey, compared to 2.7% in the West Bank. In

contrast, teacher evaluations reported 5.2% of ADHD cases in Gaza and 3.3% in the West Bank, adhering to the DSM-IV diagnostic scale (Thabet, A., 2006). In a 2017 study, Thabet found that among a sample of 398 randomly selected preschool children in Gaza City, the most prevalent subtype of ADHD was hyperactive-impulsive (37%), followed by the combined type (28.3%), based on DSM-IV criteria. Additionally, 28.8% of children were categorized as having the inattentive type of ADHD. According to a systemic review and meta-analysis study in Saudi Arabian adults, the frequency of ADHD ranged from 3.3% to 16.1%. Based on the meta-analysis, the estimated pooled prevalence was 9.95%. The prevalence rates varied according to age groupings, with children and adolescents showing higher rates than adults.(Aljadani et al., 2023) similar to another study which found the ADHD prevalence ranging from 1.3% to 18.5% among various Arab countries (Alkhateeb & Alhadidi, 2019).Furthermore, the overall ADHD prevalence by systematic review and meta-analysis study was found to be 10.3% in the Middle East and North Africa region (MENA)(Al-Wardat et al., 2024).These statistics underscore

the global impact of ADHD and the critical need for effective diagnosis, intervention, and support across diverse populations.

2.4 Attention Deficit Hyperactivity Disorder: Therapeutic Management

The treatment of ADHD involves a multimodal approach with collaboration among healthcare professionals, educators, and parents to tailor an effective treatment plan. This approach combines medications, behavioural therapy, and educational interventions. Medications, including stimulants like methylphenidate and amphetamines, and non-stimulant medications such as atomoxetine and guanfacine, are commonly used in ADHD treatment (Noordermeer & Oosterlaan, 2023). These medications primarily target neurotransmitters, especially dopamine, which is found to be at lower levels in individuals with ADHD (Burkhardt, 2023). Stimulants increase dopamine levels by blocking presynaptic transporters, contributing to symptom alleviation (Posner, J., 2020).A meta-analysis study by Cortese et al. (2018) confirms

the efficacy and safety of ADHD medications as the first-line treatment, with methylphenidate recommended for children and adolescents, and amphetamines for adults. The American Academy of Pediatrics (AAP) emphasizes parent training in behaviour management (PTBM) as a primary intervention for younger children, with medication considered for those who do not respond adequately to behavioural interventions (Eom & Kim, 2023). Behavioural Parent Training (BPT) plays a crucial role in ADHD management. It involves strategies such as effective communication, positive reinforcement, and problem-solving skills. The Multimodal Treatment of ADHD (MTA) study advocates for the combination of medication and behavioural therapy as the most effective approach, although sustainability remains a challenge (Wolraich et al., 2019). Australian guidelines also support family training for children and adolescents diagnosed with ADHD (May et al., 2023). Parenting support systems, rooted in various theoretical perspectives such as social learning theory, self-regulation theory, and applied behaviour analysis, contribute to positive outcomes for both parents and children facing the challenges of ADHD (Sanders & Mazzucchelli, 2022). Multi-level

evidence-based intervention programs tailored to the family context demonstrate positive effects (Pachiti et al., 2023). The influence of ADHD extends beyond the individual, impacting family functioning. Parents of children with ADHD often face heightened parenting stress, and low self-efficacy, and may resort to authoritarian or permissive parenting practices (Pachiti et al., 2023). Behavioural parent training proves effective in reducing stress and improving compliance with daily tasks for parents (Ciesielski et al., 2020). In conclusion, the comprehensive treatment of ADHD involves a collaborative, multimodal approach encompassing medication, behavioural therapy, and educational interventions. Parental involvement and support, especially through programs like Behavioural Parent Training (BPT), play a vital role in addressing the challenges faced by both parents and children dealing with ADHD.

2.5 The Triple P-Positive Parenting Program

One of the most widely implemented evidence-based programs (EBPs) is the Triple P – Positive Parenting Program, which is

supported by Triple P International. This organization provides resources, training, and guidance to help users adopt and implement the program with fidelity (Sanders, 2012). The Triple P program uniquely combines universal and targeted interventions to improve parenting skills at a community-wide level. Its main goal is to enhance parental knowledge, skills, and confidence, with the ultimate aim of reducing behavioural and emotional issues among children and adolescents. Rooted in a strong evidence base, as noted by Sanders (2008), research consistently demonstrates the effectiveness of Triple P in addressing children's behavioural challenges and improving parenting outcomes. By emphasizing empowerment, the program equips parents with essential skills to positively influence their parenting practices, leading to broad benefits within the community (Sanders, 2012).

The core objective of Triple P is to develop parents' capacity for self-regulation, which encompasses five key elements. First, it promotes parental self-sufficiency, encouraging independence and resilience so parents can rely on their own knowledge and skills to parent confidently. Second, it enhances parental self-efficacy, helping parents believe in

their ability to handle behavioural challenges and daily parenting tasks with confidence. Third and fourth, the program emphasizes the use of self-management tools and problem-solving skills, including self-monitoring, goal setting, performance evaluation, and the ability to execute and revise plans. These skills enable parents to view improvements in their family dynamics as a result of their efforts, fostering a sense of personal agency. Finally, parents can model these self-regulatory skills for their children in age-appropriate ways, thereby teaching them valuable self-regulation techniques (Sanders, 2008).

The triple p is based on constant principles that have been extended through a quart of a century, these principles are based on establishing a safe and engaging healthy environment, engaging the child interaction in a positive learning environment with incidental teaching opportunities, the building block of triple p principles is based on replacing the ineffective discipline practices with Assertive Discipline synchronized with realistic expectations based on their appropriate developmentally capabilities, these principles will

not be practiced appropriately without the parents awareness of the crucial self-care needs and sense of well-being (Sanders, M. R.,1999)

2.5.1 Effectiveness of Group Triple P on Children

Triple P's impact on children's social, emotional, and behavioural (SEB) issues is well-documented. A systematic review and meta-analysis encompassing thirty-seven studies established its efficacy in enhancing children's social competencies and mitigating emotional and behavioural problems (Li et al., 2021). Sanders et al. (2014) corroborated these findings, recognizing Triple P as instrumental in improving children's SEB outcomes, and recently found to be a significant tool for child maltreatment reduction(Sanders et al., 2024). Studies, including that by(Yusuf et al., 2019), have demonstrated its effectiveness specifically in the context of ADHD, noting significant improvements in CGAS (Children’s Global Assessment Scale) scores and reductions in CGI (Clinical Global Impression-Severity Scale) scores. Further research supports these results, with significant

reductions in behavioural issues, hyperactivity, and peer problems post-Triple P implementation(Au et al., 2014; Nogueira et al., 2022; Tahazade et al., 2020). These studies unanimously endorse Triple P as both a therapeutic and preventive tool, contributing to decreases in parental depression and anxiety as well(Li et al., 2021; Tahazade et al., 2020). Moreover, the suitability, implementation, adaptation, and high adoption rate of triple p in preschools was successful and showed effectiveness and maintenance over time in improving emotional and behavioural problems in children(Dahlberg et al., 2022).

2.5.2 Effectiveness of Group Triple P on Parents

The Triple P program has demonstrated effectiveness not only in improving child-focused outcomes but also in delivering substantial benefits for parents. Research shows it reduces parental conflicts, mitigates negative parenting styles, and enhances psychological adjustment and parental self-confidence, all of which contribute to stronger parent-child relationships (Li et al., 2021; Sanders et al., 2014). In quasi-experimental studies, Triple P

has been associated with decreased levels of depression, anxiety, and stress among parents of children with ADHD (Tahazade et al., 2020) and a reduction in mental health-related symptoms alongside increased parental self-efficacy (Dahlberg et al., 2022).Studies by Au (2014) and others report significant gains in parents' perceived efficacy and lowered stress levels. A systematic review across seven countries with 885 families found a moderate effect size in improved parental self-efficacy and satisfaction, contributing to positive family well-being and decreased conflict (Nogueira, 2022). Similarly, a meta-analysis identified a moderate impact of level 4 Triple P in enhancing parent-child interactions for children with special needs (Ashori, 2023). Additionally, Özyurt (2018) found that Triple P helps reduce physical and emotional child maltreatment by strengthening parental coping mechanisms.Triple P's effectiveness is sustained over time, with parents maintaining positive parenting practices and a reduction in overreactive or hostile discipline, laxness, and minor physical violence, with medium to large effect sizes at follow-up (Gagné, Clément, et al., 2023). The impact of level 4 group Triple P has also been assessed with Pakistani orphanage caregivers, where findings indicate improved caregiver well-being, enhanced parenting skills, and a

positive shift in caregiver-child relationships, along with supportive inter-staff relations within orphanages (Khalid et al., 2023). For lower-intensity Triple P, studies observed improvements in parenting practices, self-efficacy, and self-confidence in promoting healthier lifestyles, though changes in child behaviour were not noted compared to a control group (Bartlett et al., 2023).In summary, the Triple P-Positive Parenting Program is a well-supported, multifaceted intervention effective in addressing both child and parent-related challenges, especially in ADHD contexts. Its broad implementation can positively transform family dynamics and enhance child well-being.

Chapter Three: Methodology

3.1 Design

This research was conducted using a randomized controlled trial design with pre-test and post-test assessments. The study focusses on mothers of children diagnosed with ADHD in Palestine. The intervention group receives the Triple P (Positive Parenting Program) intervention, while a control group receive standard care. This design allows for the evaluation of the specific impact of the Triple P program compared to typical parenting experiences in this population.

3.2 Setting

The setting was at Halhul Mental Health for Children, located north of Hebron in the eastern part of Palestine. It is a governmental clinic that offers healthcare services for children with mental and behavioural disorders, as well as speech

therapy, psychological support sessions for children and their families, and pharmacological treatment covered by the governmental insurance provided by the Ministry of Health (MOH).

3.3 Sample and Sampling

The list of potential participants was obtained from various centres in Palestine, each specializing in the care and support of children with ADHD. Ethical approval was secured before the initiation of any participant-related activities. The process began by identifying eligible participants based on the inclusion criteria. The inclusion criteria were as follows: (1) having a child aged 6 - 13 years with ADHD diagnosis; attending a child mental health clinic (2) no participation with another professional agency to receive parental support for mothers. The exclusion criterion was having a child with neurological disorders, known medical conditions,

severe aggression, mental retardation, psychosis, and bipolar disorder.

Mothers of children diagnosed with ADHD were considered potential candidates for the study. Subsequently, these potential participants were contacted and invited to take part in the research.Upon receiving consent from the identified potential participants, a thorough interview was conducted to confirm their eligibility for inclusion in the study. The interview process involved assessing whether the mothers met the specific criteria outlined for the research based on the child's medical record and the eligibility of the child's diagnosis, ensuring a homogenous and relevant sample.

Participants who met the eligibility criteria were then informed about the random allocation process using a computer-generated randomization method in Microsoft Excel. The RAND() function was used to generate random numbers for each

participant, which were sorted to allocate them into two groups the control and intervention groups, to ensure an unbiased approach33 participants were randomly assigned for the intervention group and 31 participants were assigned for the control group "Figure 1: Study Flow Diagram "The participants were explained by the nature of the study and the possibility of being assigned to either the intervention group, receiving the Triple P program, or the control group, which would receive standard care. This random allocation is a critical aspect of the study design, eliminating potential biases and ensuring an equal distribution of characteristics that might influence the outcomes.

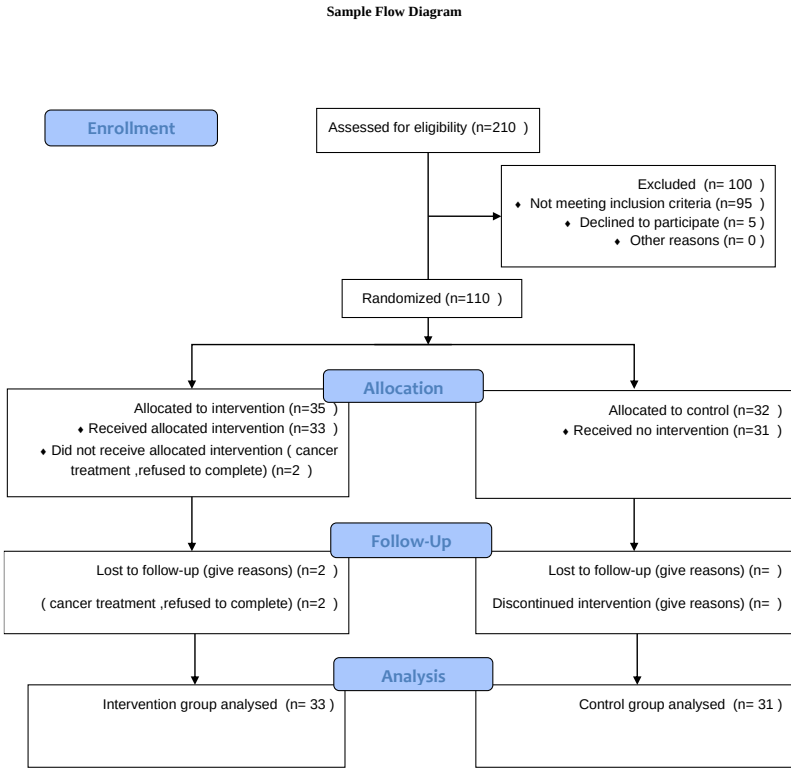

Figure 3.1 Sample flow chart

3.4 Power Analysis

The required sample size for this pilot RCT was calculated based on a statistical test of ANOVA: fixed effects, omnibus, one way. The effect size was estimated based on prior studies (Gagné, Clément, et al., 2023; Nogueira et al., 2022),on the triple P program which showed moderate to high effect sizes. With an alpha level set at 0.05, a power level of 0.8, and an effect size of 0.4, the estimated sample size was 66 for both groups the intervention and control group. This number recruited was randomly allocated with 1:1 allocation in two groups.

3.4 Measures

The Triple P program's effectiveness was assessed using three distinct tools. Two of these tools focused on maternal aspects, while the third involved assessments of ADHD children's behaviour as reported by their mothers.

3.4.1 Strengths and Difficulties Questionnaire (SDQ)

Mothers used the Arabic version of the Strengths and Difficulties Questionnaire (SDQ) to evaluate their children's strengths and challenges. Developed by Goodman in 1997 and adapted to Arabic by Goodman in 2006, the Arabic translated version was adapted by the triple p foundation, this tool is a reliable and efficient method for assessing various behavioural and psychological issues in children. Comprising 25 items, the SDQ screens for emotional and behavioural symptoms, reflecting parents' views on their children's behavioural traits, aged 3-16. It includes questions about positive and negative behaviours and is also usable by teachers. The SDQ breaks down into five sub-scales: hyperactivity-inattention, emotional symptoms, peer problems, conduct problems, and prosocial behaviour (Muris et al., 2003). Ratings are on a 3-point scale: 0 (not true), 1 (somewhat true), and 2 (certainly true). The first

four subscales combine to form a total difficulty score. Higher scores indicate more significant difficulties, whereas higher scores in the prosocial behaviour scale suggest better prosocial behaviours (Costa et al., 2020). The SDQ's reliability and validity were confirmed in studies, including those involving the Triple P program. Its Cronbach's alpha was 0.73. The internal consistency of the SDQ total difficulties score was good (Cronbach's a, 0.78), sensitivity and specificity were 0.79 and 0.93 respectively (Theunissen et al., 2013). SDQ developed to have a wider flexibility and utility for assessing mental health across various populations and settings(Vugteveen et al., 2020).In this study .The internal consistency of the SDQ tool was assessed using Cronbach's Alpha 0.88, indicating excellent reliability across items, the Intraclass Correlation Coefficient (ICC) with a two-way mixed-effects model, the ICC for average measures was 0.88 (95% CI [0.83, 0.91]), indicating excellent

reliability across items, of pre and post measurements

3.4.2 The Parenting Scale

The shortened 7-item Parenting Scale (PS) assesses dysfunctional discipline practices through two primary subscales: laxness (permissive discipline) with three items and over-reactivity (anger, irritability, and authoritarian discipline) with four items. This brief version shows an improved factor structure, with cultural sensitivity comparable to the original scale and solid psychometric properties, as indicated by a Cronbach's alpha of 0.799 for internal consistency. Construct validity is supported by a confirmatory factor analysis (CFA) with values ranging from 0.6 to 0.7, indicating a good model fit for the two-factor structure (laxness and over-reactivity), and strong criterion and discriminant validity, evidenced by a significant positive correlation

with the original PS and its subscales among a sample of 3,777 participants (total score: $r = 0.916$, laxness: $r = 0.830$, over-reactivity: $r = 0.850$; all $p < 0.001$) (Fung & Fung, 2020). Responses are rated on a seven-point scale to identify ineffective parenting practices (Irvine et al., 1999), making the Parenting Scale useful for evaluating intervention programs and correlating strongly with child misbehaviour (Arnold et al., 1993). It is particularly valid and reliable in assessing the discipline practices of parents with ADHD children, as parents of children with ADHD show higher scores in laxness and over-reactivity compared to parents of children without behaviour problems (Harvey et al., 2001), and hostile discipline is linked to problematic child behaviour (Rhoades & O'Leary, 2007).

The original 30-item Parenting Scale, a comprehensive self-report tool, also included a verbosity subscale that measures the repeated use of verbal means to address misbehaviour, which

showed high reliability (Cronbach's alpha of 0.86) with consistent internal consistency and test-retest reliability (Arnold et al., 1993). However, recent studies suggest that the original subscales outperform shortened versions in terms of reliability and stability, with notable correlations to child externalizing behaviours and parental relationship satisfaction (Lorber et al., 2014). Brief versions (13, 8, and 7 items) have been introduced, with shorter forms proving more suitable for clinical use due to easier administration (Salari et al., 2012). The PS-8 version is particularly reliable for clinical and epidemiological research on dysfunctional parenting behaviours (Kliem et al., 2019), and a 10-item PS has been found promising for use in European middle-income settings.The abbreviated Parenting Scale offers a reliable, cost-effective approach to assessing parental practices and evaluating treatment outcomes (Fung & Fung, 2020). This brief scale focuses on the two main

subscales, laxness and over-reactivity, omitting verbosity, which showed weaker internal consistency ($\alpha = 0.63$) and low correlation with child misbehaviour, as well as limited ability to distinguish between clinical and non-clinical participants (Salari et al., 2012). The PS was translated into (Arabic language) using the back-back translation method, involving bilingual experts, who reviewed and refined the translation to ensure cultural and conceptual suitability. The Parenting Scale's reliability was further assessed in the current study with Cronbach's alpha of 0.62, indicating moderate reliability across 14 items. Intraclass Correlation Coefficient (ICC) analysis using a two-way mixed-effects model yielded an ICC of 0.619 (95% CI [0.431, 0.766]), showing moderate reliability across pre- and post-test measurements.

3.4.3 Parenting Sense of Competence (PSOC)

The Parenting Sense of Competence (PSOC) scale, first developed by Gibaud-Wallston in 1978 and later revised by Johnston and Mash in 1989, measures parenting self-esteem through two core subscales—Efficacy and Satisfaction—across 17 items. These subscales evaluate aspects of parental competence, including problem-solving, motivation, and emotional responses like anxiety and frustration. The PSOC uses a 6-point Likert scale (1 = strongly agree to 6 = strongly disagree), with higher scores reflecting greater parenting self-esteem. Early reliability assessments by Gibaud-Wallston et al. (1978) reported alpha coefficients of .82 for Satisfaction and .70 for Efficacy, with test-retest correlations over six weeks between .46 and .82. More recent measures indicate Cronbach's alpha values of .75 for Satisfaction, .76 for Efficacy, and .79 for the Total score, reinforcing the scale's reliability (Gibaud-

Wallston & Wandersman, 1978). The PSOC is valuable for evaluating parenting program outcomes, as demonstrated in studies like that of Yan and Hou (2023), which explored parenting competence among families with children in special education. In their research, the PSOC showed an internal consistency of 0.735 (Cronbach's alpha) across the 34 items utilized. The PSOC was translated into (Arabic language) using the back-back translation method by bilingual experts, who reviewed and refined the translation to ensure cultural and conceptual suitability.Reliability, measured by the Intraclass Correlation Coefficient (ICC) through a two-way mixed-effects model, yielded an average ICC of 0.735 (95% CI [0.630, 0.821]),indicating reliable stability across multiple assessments.

3.5 Intervention Protocol

The Positive Parenting Program (Triple P), developed by Sanders et al. (2008) at the

University of Queensland, Australia, is an evidence-based intervention designed to enhance parent-child interactions. The program equips mothers and caregivers with effective strategies to mitigate behavioural problems in children while boosting their confidence and parenting skills (Ashori, 2023).

An online course from the Triple P Association in Britain was completed by the researcher, leading to an accredited certificate to train in Triple P Level 4(Appendix 4), specifically tailored for children with special needs. The core content for the sessions was sourced from the Triple P provider website and supplemented by additional materials, which the researcher translated into Arabic from Every Parent manual, a key resource in the Triple P curriculum. Each subtopic was reinforced with Arabic-language videos from the Triple P program, shown during the sessions to illustrate key concepts and skills.

The program began with an introductory session, which covered the program's objectives, established a trusting relationship with the participants, and secured informed consent During this session, demographic data was collected, and pre-intervention questionnaires were completed by the mothers. The implementation of Triple P consisted of multiple sessions including the major subtopic contents of group triple p covered for the participants (Table 3.1), each lasting approximately two hours, covering program strategies, videos, discussions, and follow-up tasks. Mothers received individual phone calls lasting 30-50 minutes, two to three times after the program to reinforce the practical application of Triple P strategies for managing their children's behaviour and to help troubleshoot any challenges. Daily support was provided through short messages and videos via WhatsApp groups, ensuring ongoing engagement with the program content, using prompts during the phone call conversation for correcting the management skills learned in the sessions in a real-world situations with

their children, and questions about how would the situation would be handled next time in terms of gaining self-agency skill in child disruptive behaviour management. Pre- and post-intervention assessments were conducted to measure outcomes for each participant. Simultaneously, the control group underwent pre-testing, with post-testing conducted two months later to assess comparative outcomes.

Table 3.1Contents of group triple p sessions Adapted from (Yusuf, Ö., et al,2019).

Session number	Content	Session duration
1. Positive parenting	Working as a group What is positive parenting? Why do children behave as they do? Goals for change Keeping track	120 minutes (group)
2. Helping children develop	Developing good relationships with children Encouraging good behaviour Teaching new skills and behaviours	120 minutes (group)
3. Managing misbehaviour	Managing misbehaviour Developing parenting routines Finalizing your behaviour chart	120 minutes (group)
4. Planning ahead	Family survival tips High-risk situations Planned activities Preparing for telephone sessions	120 minutes (group)
5. Using positive parenting strategies 1	Preparing for the session Update on practice Other issues	15–30 minutes (telephone)
6. Using positive parenting strategies 2	Preparing for the session Update on practice Other issues	15–30 minutes (telephone)
7. Using positive parenting strategies 3	Preparing for the session Update on practice Other issues	15–30 minutes (telephone)
8. Programme close	Preparing for the session Update on practice Phasing out the programme Progress review Keeping up the good changes Problem-solving for the future Future goals Final assessment	120 minutes (group)

3.6 Analysis

Data analysis was conducted using the Statistical Package for Social Sciences (SPSS) version 27. Responses were coded and entered into the software, with frequencies and percentages calculated for all categorical variables. Means and standard deviations served as measures of central tendency for Likert-scale variables. To assess reliability, Cronbach's alpha was calculated, and Pearson correlations between indicators were examined to validate the research method. The Kolmogorov-Smirnov test was used to check data distribution normality. Independent sample t-tests were conducted to evaluate mean differences between the intervention and control groups at both pre- and post-intervention stages, with a significance level of 5% and a P-value threshold of <.05 for statistical significance. Descriptive statistics characterized the demographic information of participants in both groups.

Baseline comparisons using independent t-tests were conducted to verify the effectiveness of randomization by identifying any significant differences in key variables between groups prior to the intervention. The primary analysis focused on assessing the Triple P program's effectiveness versus standard care, comparing pre- and post-test scores on measures related to parenting skills, child behaviour, and overall well-being to evaluate intervention impact.

3 .7 Ethical consideration

Ethical approval for the study was obtained from the AAUP Review Board (Appendix1), and additional approval was granted by the Ministry of Health (Appendix5) for access to information from medical files. Informed consent (Appedix3) was obtained from each participant, and all outcome measures were collected anonymously. Participation in the study was entirely voluntary,

with participants given the option to withdraw at any time. To ensure confidentiality, all collected data was securely stored in a locked environment accessible only to the researcher.

3.8 Pilot Testing

A pilot testing was conducted to assess the feasibility of Triple P program implementation with a small group of mothers whose children have ADHD. The administration and implementation of the Triple P program for these mothers were tested for its acceptance and approval in a different cultural context from its Western origins. The program was tailored according to the cultural and regional circumstances of the Middle East. The pilot study received full review and approval from the institutional review board of the AAUP, as well as the recruitment setting. Written informed consent was obtained from all participants and as an

agreement of being involved in the study,10 participants were conveniently selected to have the triple p sessions in the pilot study. Participants were contacted by telephone to join the study after obtaining permission and approval from the Ministry of Health to access child mental health clinic records, mothers were randomly selected from the clinic's registry of children receiving follow-up care and medication (Concerta, which is Methylphenidate, a CNS stimulant that inhibits the reuptake of dopamine and norepinephrine, approved for treating ADHD). All sessions were held in full equipped meeting rooms, satisfactory outcomes were obtained by the participants for the administration of the program, minor changes for the PS were introduced by using the shortened version, with the addition of online sessions for more convenience for the mothers as they all agreed on, participants in the pilot included in the study sample, as no change occurred in the study methodology.

Chapter Four: Results

This chapter presents the collected data and the statistical analysis used in the study. The flow of data matches the study's main questions. The results begin with descriptive statistics for the study sample. Next, each of the study questions is addressed by presenting a description of the analysis that was computed and the results of that analysis.

4.1. Participants' Characteristics

The study sample comprised 64 mothers of diagnosed ADHD children, divided into two groups,33 was assigned for the intervention group while the rest were 31 in the control group. The demographic data were obtained by the first section of the questionnaires (Appendix6), the sample consisted of 64 children with a mean age of 8.86 years (SD = 2.13), ranging from 5 to 13 years. The mothers had a mean age of 36.75 years (SD = 7.54), with ages spanning from 23 to 53 years. The ADHD children's ages ranged from 5 to 13 years with a mean age of 8.86 years (SD = 2.13), the majority of them were 8 years (20.3%, n=13), followed by 7 years (18.8%, n=12) and 6 years (9.4%, n=6). The majority

of the children's gender were males (68.75% n= 44) while (31.25% n=20) were female children. (20% n=13) of the mothers reported the presence of other diagnosed children of ADHD, and the majority (79.7% n=51) did not. Mothers' ages varied from 23 to 51 years, with mean age of 36.75 years (SD = 7.54). The majority of the participant's mothers were between 31 and 40 years old (65.6%, n=42), fewer mothers were in the age of 23 to 30 years (21.9%, n=14) while (12.5%, n=8) were above 41 years, most of the participants were married (90.6%, n=58), with fewer being divorced (3.1%, n=2) or separated (6.3%, n=4). The educational level of mothers varied widely, the majority of mothers (28.1% n=18) held a Bachelor's degree, followed by (23.4% n=15) who had secondary education, (17.2% n=11) who had a diploma degree, (15.6% n=10) had completed Tawjihi, while a minority (6.3%n=4), had only primary education, and (6.3% n=4) had higher studies. Only (3.1% n=2) were uneducated, as they have never attended school, also (6.3% n=4) of the fathers were uneducated, the majority of fathers (39.1% n=25) had secondary education, (21.8% n=14) divided equally between primary education and a Bachelor’s degree and (15.6% n=10) completed Tawjihi,

(12.5% n=8) had a diploma, and (4.7% n=3) had higher studies. The majority of participants **(**70.3% n=45) were unemployed, (29.7% n=19) were employed, among those employed, (10.9% n=7) worked part-time, and (15.6% n=10) worked full-time, a small proportion of children had other disorders(17.2%, n=11) , mostly sensory disturbances such as hearing problems (n=4), two with vision problems(3.1% n=2), and one reported speech problem (1.5%n=1), one with problems in fingers(1.5%n=1), another one with motor disturbances (1.5%n=1), only one with convulsion(1.5%n=1), while the majority did not have another disorders (82.8%, n=53). Most children received ADHD treatment from governmental clinics (34.4%, n=22), specialized centers (28.1%, n=18), and private clinics (21.9%, n=14). Regarding treatment duration, most had been receiving treatment for 1-4 years (62.5%, n=40), while 37.5% (n=24) had been treated for 4-8 years**.** Children received diverse types of ADHD treatment (37.5% n = 24) of the children received pharmacological treatment, (17.2%n = 11) received psychological or behavioural treatment, while (18.8% n = 12) received both types of treatment, and (26.5%n = 17) received no treatment. The average reported

monthly treatment expenses ranged from less than 100 NIS (15.6%, n=10) to 300-1000 NIS (31.3%, n=20). A small proportion of participants reported expenses above 2000 NIS (4.7%, n=3). Regarding insurance type (56.3%n=36) had governmental insurance, (14.1% n=9) had private insurance, prisoner insurance (3.1% n=2), and (18.8% n=12) had no insurance coverage, (4.7% n=3) had other types of insurance. Insurance coverage for ADHD treatment was present IN (26.6% n=17) of cases, while (73.4% n=47) had no insurance coverage. The majority (75.0% n=48) of children were mainstreamed in regular schools (45.3% n=29) attended governmental schools (31.3% n=20) attended private schools, (15.6% n = 10) attended specialized centers, and a minority (3.1% n = 2) attended United Nation schools, (4.7% n = 3) were not affiliated with any specific type of school. Mothers who had physical health conditions (42.2%n=27) had physical illnesses, (51.6% n=33) had Psychological conditions, while the majority of mothers had not complained of any of the two conditions (57.8% n=37) . Help-seeking behaviour showed that (29.7% n=19) had requested psychological assistance, (18.8%n=12) consulted psychological consultants, and (25.0% n=16) consulted

neurologists, (12.5% n=8) sought help from social workers, (9.4% n=6) sought other professional help. Most of the children lived with their parents (81.3%, n=52), while a smaller proportion lived with their mother only (6.3%, n=4), with other family members (9.4%, n=6), only one lived with their father's wife (1.6%, n=1)

Table.4.1 Participants Characteristics (N=64)

Characteristics	Control group (n=31)	Intervention group (n=33)
Age		
Child's Age in years, mean (SD)	8.81 (2.07)	8.7(2.19)
Mother's Age in years, mean (SD)	39.7(8.09)	34.7 (7.16)
Marital Status		
Married	28 (90.3%)	30 (90.9%)
Divorced	0 (0.0%)	2 (6.1%)
Separated	3 (9.7%)	1 (3.0%)
Mother's Education Level		
Uneducated	2 (6.5%)	0 (0.0%)
Primary	2 (6.5%)	2 (6.1%)

Secondary	8 (25.8%)	7 (21.2%)
Tawjihi	3 (9.7%)	7 (21.2%)
Bachelor	10 (32.3%)	8 (24.2%)
Diploma (2 years)	5 (16.1%)	6 (18.2%)
Higher Studies	1 (3.2%)	3 (9.1%)
Father's Education Level		
Uneducated	2 (6.5%)	2 (6.1%)
Primary	1 (3.2%)	6 (18.2%)
Secondary	15 (48.4%)	10 (30.3%)
Tawjihi	5 (16.1%)	5 (15.2%)
Bachelor	5 (16.1%)	2 (6.1%)
Diploma (2 years)	2 (6.5%)	6 (18.2%)
Higher Studies	1 (3.2%)	2 (6.1%)
Mother employment Status		
Yes	11 (35.5%)	8 (24.2%)
No	20 (64.5%)	25 (75.8%)
Child's Gender		
Male	21 (67.7%)	20 (60.6%)
Female	10 (32.3%)	13 (39.4%)

Other diagnosed Children		
Yes	2 (6.5%)	11 (33.3%)
No	29 (93.5%)	22 (66.7%)
Type of ADHD Treatment Center		
Governmental Clinic	13 (41.9%)	9 (27.3%)
Specialized Center	3 (9.7%)	15 (45.5%)
Private Clinic	10 (32.3%)	4 (12.1%)
Not Affiliated	5 (16.1%)	5 (15.2%)
Years of Treatment		
1-4 years	26 (83.9%)	18 (54.5%)
4-8 years	5 (16.1%)	15 (45.5%)
Insurance Type		
Governmental	17 (54.8%)	19 (57.6%)
Private	5 (16.1%)	4 (12.1%)
UN	1 (3.2%)	1 (3.0%)
Prisoner	2 (6.5%)	0 (0.0%)
None	4 (12.9%)	8 (24.2%)
Other	2 (6.5%)	1 (3.0%)
Insurance Coverage		

Yes	10 (32.3%)	7 (21.2%)
No	21 (67.7%)	26 (78.8%)
School Mainstreaming		
Yes	22 (71.0%)	26 (78.8%)
No	9 (29.0%)	7 (21.2%)
Type of School		
Private School	9 (29.0%)	11 (33.3%)
Governmental School	16 (51.6%)	13 (39.4%)
United Nations	1 (3.2%)	1 (3.0%)
Specialized Center	3 (9.7%)	7 (21.2%)
Not Affiliated	2 (6.5%)	1 (3.0%)
Treatment expenses (NIS)		
Less than 100	7 (22.6%)	3 (9.1%)
150-300	3 (9.7%)	9 (27.3%)
300-1000	8 (25.8%)	12 (36.4%)
1000-2000	6 (19.4%)	4 (12.1%)
2000-3000	2 (6.5%)	0 (0.0%)
More than 3000	0 (0.0%)	1 (3.0%)
Don't Know	5 (16.1%)	4 (12.1%)

Other diseases for Child		
Yes	5 (16.1%)	6 (18.2%)
No	26 (83.9%)	27 (81.8%)
Family Income (NIS)		
Less than 1500	8 (25.8%)	8 (24.2%)
1600-3000	11 (35.5%)	15 (45.5%)
3000-4000	6 (19.4%)	10 (30.3%)
More than 4000	6 (19.4%)	0 (0.0%)
Presence of Mother's Physical Illness		
Yes	14 (45.2%)	13 (39.4%)
No	17 (54.8%)	20 (60.6%)
Presence of Mother's Psychological Conditions		
Yes	11 (35.5%)	22 (66.7%)
No	20 (64.5%)	11 (33.3%)
Requested Help from Psychologist		
Yes	10 (32.3%)	9 (27.3%)
No	21 (67.7%)	24 (72.7%)
Requested Help from Social Worker		
Yes	3 (9.7%)	5 (15.2%)

No	28 (90.3%)	28 (84.8%)
Requested Help from Psychiatrist		
Yes	6 (19.4%)	10 (30.3%)
No	25 (80.6%)	23 (69.7%)
Requested Help from Neurologist		
Yes	8(10%)	8(9%)
No	22(90%)	25(90.9%)
Requested Help from other professionals		
Yes	3(10%)	3(9%)
No	27(90%)	30(90.9%)
Child Living Conditions		
With parents	26(86.6%)	26(78.7%)
With mother only	1(3.3%)	3(9%)
With family	3(10%)	3(9%)
Other	0	1(3%)

4.2. Parenting Sense of Competency, Strengths and Difficulties Questioner SDQ, Parenting Style PS pre-test

A pre-test assessment for the PS, PSOC, and SDQ was conducted for both the intervention and control groups. Further, the study looked into differences between the two groups at baseline. In particular, independent t-tests were conducted to determine whether the mean scores of PS, PSOC, SDQ differed significantly in the intervention group compared with the control group. All test assumptions were firstly examined to ensure data were compatible with the test (Plichta & Kelvin, 2012)(Plichta and Kelvin, 2012a. p.95). The independent variable was the "group" and the dependent variables were the "PS, PSOC, SDQ scores", in which both groups were mutually exclusive. All dependent variables were continuous and normally distributed, and the assumption of homogeneity of variance was met.

The analysis of the various measures between the control and intervention groups using independent samples t-tests revealed notable findings. First, for the total score of SDQ pre-test, the intervention group (M = 19.78, SD = 5.56) did

not significantly differ from the control group (M = 21.32, SD = 6.09), t (61) = -1.05, *P* >.05). Similarly the post-test SDQ scores (M = 19.28, SD = 6.71) for the intervention group;(M = 21.52, SD = 5.54) for the control group were also not significantly different, t(61) = -1.44, *P* >.05).For SDQ subscales starting with emotional problems no significant differences found pre-test, between the intervention group (M = 4.56, SD = 2.44) and the control group (M = 5.16, SD = 2.38), (t(61) = -0.98, p = p > .05). Similarly, the emotional problems post-test revealed no significant difference between the intervention group (M = 4.94, SD = 2.60) and the control group (M = 5.16, SD = 2.24), t (61) = -0.36, p = p > .05. Regarding conduct problems, the pre-test scores showed that the intervention group (M = 3.91, SD = 1.78) were not significantly different from the control group (M = 4.39, SD = 2.58), t (61) = -0.85, p = *P* >.05). Similarly, post-test scores revealed no difference with the intervention group (M = 3.59, SD = 1.86) scoring lower than the control group (M = 4.48, SD = 2.42), t (61) = -1.64, p = *P* >.05). Yet hyperactivity problems exhibited a marginal significance difference post-intervention between the intervention group (M = 6.78, SD =

2.70) and the control group (M = 7.97, SD = 2.00), (t (61) = -1.97, p = .053). Cohen's d was calculated as 0.48, indicating a medium effect size, suggesting a reduction in hyperactivity symptoms due to the intervention.For peer problems, pre-test scores showed that the intervention group (M = 4.38, SD = 1.88) were not significantly different from the control group (M = 3.84, SD = 1.51), (t (61) = 1.25, *P* >.05). The post-test scores (M = 3.97, SD = 1.71) for the intervention group; M = 3.90, SD = 1.76 for the control group) also showed no significant difference, (t (61) = 0.15, *P* >.05). Prosocial behaviour scores at the post-test were significantly higher for the intervention group (M = 7.72, SD = 2.20) compared to the control group (M = 6.19, SD = 2.57), t (61) = 2.53, p = .014). The effect size, as measured by Cohen's d, was medium to large (d=0.64), indicating a positive effect of the intervention on children's social interactions. For peer problems, pre-test scores showed that the intervention group (M = 4.38, SD = 1.88) was not significantly different from the control group (M = 3.84, SD = 1.51), t (61) = 1.25, *P* >.05). The post-test scores (M = 3.97, SD = 1.71 for the intervention group;(M = 3.90, SD = 1.76) for the control group also showed no significant difference, t (61) = 0.15, *P*

>.05). The Second result for the total score of the parenting style, did not show any significant differences between the two groups, the total PS score of the intervention group post-test (Mean = 3.22, SD = 0.86) and for the control (Mean = 3.53, SD = 0.63), t (60) = -1.616, p = >.05). Also, the total PS score did not differ significantly (t (60) = -0.911, p = >.05), for the pre-intervention group (M = 3.77, SD = 0.87) and the control group (M = 3.96, SD = 0.76), yet there was a significant difference, for the sum of parenting subscale Laxness post-test scores revealed a significant difference between the intervention group (M = 3.31, SD = 1.45) and the control group (M = 3.95, SD = 0.93),(t(60) = -2.07, p = .04) with a medium effect size (d=−0.51), indicating that the intervention had a moderate positive impact on reducing laxness. Similarly, the sum of Laxness pre-test scores in the intervention group (M = 3.08, SD = 1.23) significantly differed from the control group (M = 3.80, SD = 1.01), (t (60) = -2.51, p = .015), with a medium to large effect size (d=−0.73), suggesting that the intervention group had higher laxness before the intervention, indicating for enhanced parenting consistency. For the mean Over reactivity parenting subscale, the post-test scores in the intervention

group (M = 3.6, SD = 1.3) did not significantly differ from the control group (M = 3.7, SD = 0.9), t(60) = -0.32, *P* >.05), also for the pre-intervention group(M= 4.0, SD=1.3), control group pre (M=3.9, SD=1,08) (t(60)= .451, *P* >.05). The third measure of PSOC, Importantly, the intervention group displayed a significant improvement (t (60) =2.3, p = 0.023) in the total post Parenting Sense of Competency (PSOC) scores between the intervention (M = 68.28, SD = 9.67), and the control group (M = 62.80, SD = 8.81), reflecting increased parental efficacy and satisfaction, with medium effect size, as measured by Cohen's d (d=0.59). While the pre-total PSOC did not differ significantly (t (60) =-.82, p =, *P* >.05). between the intervention group (Mean = 63.44, SD = 6.97) and the control group (M= 65.03, SD = 8.38). In conclusion, the intervention significantly enhanced prosocial behaviours and parental sense of competency, with promising reductions in hyperactivity and laxness in parenting, thereby supporting the efficacy of the program in improving both child and parent outcomes. Table 4.2 summarizes the differences in results among two groups

Table 4.2 Pre and Post Differences in PSOC, PS, SDQ Scales Among Intervention and Control Groups

Measure	ntervention (M ± SD)	Control (M ± SD)	Total (M ± SD)	t-value	p-value
SDQ-Emotional Problems (Pre)	**4.56 ± 2.45**	**5.16 ± 2.38**	**4.88 ± 2.42**	**-.983**	**0.32**
SDQ-Emotional Problems (Post)	**4.94 ± 2.60**	**5.16 ± 2.24**	**5.06 ± 2.41**	**-0.36**	**0.716**
SDQ-Conduct Problems (Pre)	**3.91 ± 1.78**	**4.39 ± 2.58**	**4.16 ± 2.22**	**-.863**	**0.39**
SDQ-Conduct Problems (Post)	**3.59 ± 1.86**	**4.48 ± 2.42**	**4.04 ± 2.18**	**-1.639**	**0.10**
SDQ-Hyperactivity (Pre)	8.22 ± 1.98	7.71 ± 2.04	7.96 ± 2.01	-1.849	0.06
SDQ-Hyperactivity (Post)	**6.78 ± 2.70**	**7.97 ± 2.01**	**7.38 ± 2.42**	-1.976	**0.05***
SDQ-Peer Problems (Pre)	**4.38 ± 1.88**	**3.84 ± 1.51**	**4.10 ± 1.72**	**1.24**	**0.21**
SDQ-Peer Problems (Post)	**3.97 ± 1.71**	**3.90 ± 1.76**	**3.94 ± 1.73**	**0.150**	**0.881**
SDQ-Prosocial (Pre)	**7.47 ± 2.29**	**6.42 ± 2.81**	**6.92 ± 2.57**	**1.627**	**0.109**
SDQ-Prosocial (Post)	**7.72 ± 2.20**	**6.19 ± 2.57**	**6.98 ± 2.44**	**2.529**	**0.01***
SDQ-Impact Score (Pre)	**6.77 ± 4.43**	**5.19 ± 3.27**	**6.00 ± 3.90**	**1.598**	**0.115**
SDQ-Impact Score (Post)	**6.22 ± 4.24**	**5.06 ± 3.32**	**5.67 ± 3.83**	**1.201**	**0.234**
SDQ-Total Score (Pre)	**19.78 ± 5.56**	**21.32 ± 6.09**	**20.61 ±5.82**	**-1.049**	**0.298**
SDQ-Total Score (Post)	**19.28 ± 6.71**	**21.52 ± 5.54**	**20.42 ±6.13**	**-1.439**	**0.155**
Parenting Scale - Laxness (Pre)	**3.0 ± 1.2**	**3.8 ± 1.0**	**6.85 ± 2.35**	**-2.510**	**0.01***
Parenting Scale - Laxness (Post)	**3.3 ± 1.4**	**3.9 ± .9**	**15.94 ± 4.80**	**-2.27**	**0.04***
Parenting Scale - Over reactivity (Pre)	**4.0 ± 1.3**	**3.9± 1.0**	**15.19 ± 4.12**	**0.451**	**0.65**

Parenting Scale - Over reactivity (Post)	**3.6 ± 1.3**	**3.7 ± 0.9**	**4.94 ± 4.60**	**-0.324**	**0.74**
Parenting Scale - Total (Pre)	**3.77 ± 0.87**	**3.96 ± 0.76**	**3.86 ± 0.81**	**-0.91**	**0.36**
Parenting Scale - Total (Post)	**3.22 ± 0.86**	**3.53 ± 0.63**	**3.38 ± 0.76**	**-1.6**	**0.11**
PSOC - Total (Pre)	**63.44 ± 6.97**	**65.03 ± 8.38**	**64.22 ± 7.63**	-.822	**0.4**
PSOC - Total (Post)	**68.28 ± 9.67**	**62.80 ± 8.81**	**65.67 ± 9.44**	**2.3**	**0.02***

Note. M = mean; SD = standard deviation; t = t-value; p = p value.

4.3 Feasibility Results

Several factors were evaluated collectively. The findings regarding participant satisfaction, data completeness, cultural congruence, retention rate, and protocol adherence offered compelling evidence in favour of the full-scale RCT's future use. The introduction of Triple p had met with acceptance among the ADHD children's mothers to have it administered within the same religious and ethnic community who share a language and culture within same socio-political context.It is noteworthy that most participants attended Triple P sessions without dropping out while challenging logistic and contextual barriers. This feasibility study considered the factors that frequently deter participation, such as travel expenses, confidentiality, societal stigma, and political instability in a conflict zone area.

Chapter Five: Discussion

The overarching purposes of this study were to (1) To investigate the effectiveness of the Triple P program in promoting positive attitudes towards managing ADHD among mothers in Palestine. (2) To examine the efficacy of the Triple P program in promoting maternal sense of competency among mothers in Palestine. mother's sense of competency (3) Examine the effectiveness of the Triple P program in reducing children's ADHD behavioural symptoms as perceived by their mothers. For these purposes, a randomized controlled trial methodology design was utilized with 64 mothers of ADHD children being randomly assigned to a group receiving the Triple p, and another group as a control group. The RCT aimed to look into changes in parenting attitudes, sense of competency, and child's disruptive behaviour reduction after receiving the intervention. This chapter seeks to interpret, clarify, support, and critically assess the study's quantitative findings. The chapter highlights the study's contribution to the body of knowledge, practice, education, and research by elaborating on and debating the knowledge claims made while reporting the study findings. The chapter also identifies the

shortcomings and restrictions of the research and suggests ways to improve it.

5.1. Triple p Effectiveness: RCT method

Twenty years ago, behavioural parent training programs demonstrated clinical significance and effectiveness in improving parent functioning, showing substantial reductions in parenting stress and notable increases in parenting self-esteem. Additionally, parents reported significant improvements in the severity of their child's ADHD symptoms (Anastopoulos et al., 1993). Despite these promising results, such programs have never been tested in the Arab region in general, nor in the Palestinian context specifically. To address this gap, we quantitatively measured the effectiveness of the Triple P (Positive Parenting Program) in enhancing mothers' sense of competency in managing their child's ADHD, using an Arabic version of the Parenting Sense of Competency (PSOC) questionnaire. The analyses revealed no significant differences in PSOC scores between the intervention and control groups at baseline. However, following the implementation of Triple P, post-intervention PSOC scores showed substantial improvements in the intervention group, with a significantly larger increase in their

sense of competency compared to the control group. These findings align with existing research, which consistently supports the effectiveness of Triple P in improving parenting self-efficacy and competency, particularly among mothers of children with ADHD (Chesterfield et al., 2021; Stattin et al., 2015; Zhou et al., 2017). The enhanced sense of competency and self-efficacy among mothers of children with ADHD is crucial. This improvement not only equips mothers with the skills and confidence to manage their child's disruptive behaviour but also contributes to better long-term outcomes for the child. As Triple P emphasizes self-agency, skill acquisition, and confidence building, it helps mothers feel more capable of addressing the challenges of raising a child with ADHD. This, in turn, positively impacts the child's developmental trajectory, with wider societal benefits as well (Sanders, 2023). Furthermore, fostering a healthy sense of parental confidence and satisfaction can mitigate feelings of blame and stigma often experienced by families and professionals concerning the child's difficulties (Harborne et al., 2004). It has also been found that co-regulation abilities and family dynamics in mothers of children with ADHD are often impaired due to lower executive functioning, reduced self-efficacy, and heightened anxiety (Yaacoby-Vakrat et al.,

2023). Consequently, the sense of competency in parenting is inversely correlated with maternal stress levels; stronger parenting efficacy supports healthier parent-child interactions and promotes positive behaviours in the child (Angeline & Rathnasabapathy, 2023; Dahlberg et al., 2022; El-Sebaie et al., 2017; Nagy et al., 2018; Tehranidoost et al., 2008).The study reinforces the concept that the challenges of raising a child with ADHD can be better managed by educating and empowering mothers to improve their sense of competency and self-efficacy. Through targeted interventions like Triple P, mothers can develop coping strategies that reduce dysfunctional parenting practices and increase parental competence. This also leads to improvements in maternal mental health, further supporting the well-being of both the parent and the child (Abdollahpour et al., 2017; Tehranidoost et al., 2008). Results from a randomized controlled trial (RCT) further supported the effectiveness of the intervention, demonstrating significant improvements in parenting styles within the intervention group compared to the control group. The complexity of managing a child with ADHD, combined with a mother's conflicting emotions and inadequate understanding of the disorder, can result in elevated stress levels, poor mental health, and ultimately ineffective

parenting practices. This, in turn, exacerbates the child's ADHD symptoms (Marumoto et al., 2023). The ripple effects of these challenges extend beyond the child, impacting other aspects of family life. Studies have shown that parents of children with ADHD experience higher rates of family separation and employment difficulties compared to parents of children without ADHD (Kousgaard et al., 2018). Additionally, relationship instability and the mental health struggles of parents, often compounded by lower employment opportunities, create further challenges for families of children with ADHD (Kvist et al., 2013). Acquiring effective parenting skills to manage ADHD behaviours has long been recognized as a cornerstone of childhood ADHD treatment. Equipping mothers with strategies for consistent discipline, positive reinforcement, and problem-solving is essential to address the day-to-day challenges they face. However, the unmet needs of these parents highlight the importance of interventions like Triple P. In this study, the Triple P intervention significantly improved parental attitudes towards laxness compared to the control group, as measured by the Parenting Scale—a recognized tool for assessing dysfunctional parenting in discipline situations. The scale includes two subscales: Laxness, which refers to permissive

discipline where parents fail to enforce rules or inadvertently reward misbehaviour, and Over-reactivity, which reflects anger,irritability, and harsh responses during a child's misbehaviour (Arnold et al., 1993).Both groups in the study demonstrated clinically significant levels of over-reactivity and laxness at baseline, but the intervention group showed a marked reduction in over-reactivity scores, indicating a shift towards more effective parenting strategies. This improvement in parenting style is critical, as an extensive body of literature highlights the direct impact of parenting practices on a child's mental and physical development (Pinquart, 2017). Research consistently supports the notion that positive changes in parenting can lead to enhanced mother-child relationships, reduced child misbehaviour, and lowered parental anxiety (Aghebati et al., 2014). In contrast, negative parent-child interactions often result in a worsening cycle, exacerbating behavioural problems in the child and deteriorating the well-being of both the mother and child (Bagner et al., 2013). Coercive and dysfunctional discipline, along with harsh interactions, are known to breed noncompliant behaviour in children, while over-reactivity creates a stressful and unpleasant parent-child relationship. These patterns are inversely related to positive parenting

(Patterson et al., 1992). In contrast, a warm, nurturing parent-child interaction combined with consistent discipline has been shown to reduce disruptive behaviours in children (Romero-Acosta et al., 2021). By empowering mothers of ADHD children with Triple P's simple yet effective strategies, this intervention helps foster healthy coping mechanisms for managing disruptive behaviours. Mothers learn to maintain positive appraisals, demonstrate endurance and consistency, and create an atmosphere of acceptance, all of which reduce frustration and contribute to improved mental, physical, and social health for both the mother and child (Balagan, 2022).In addition to improvements in parenting practices, the study also revealed significant differences inthe prosocial behaviour subscale of the Strengths and Difficulties Questionnaire (SDQ) between the intervention and control groups. Prosocial behaviour, which encompasses a child's tendency to care, share, and help others, is a critical aspect of well-being and is associated with positive social relationships (Eisenberg et al., 2006; Gagné, Piché, et al., 2023). Implementing Triple P for mothers of ADHD children not only significantly reduced hyperactivity problems but also led to marked improvements in prosocial behaviours. These findings align with previous studies that demonstrated reductions in the severity of ADHD

symptoms following psychological interventions for parents (Li et al., 2021; Shata et al., 2014; Tahazade et al., 2020; Yusuf et al., 2019). However, these results contradict other studies (Rodrigo Jiménez et al., 2022), which may be attributed to the use of different psychoeducational interventions rather than Triple P. The findings of this study indicate a meaningful reduction in hyperactivity and an increase in prosocial behaviours in children with ADHD in light of the mean score reduction of the hyperactivity sub-scale in the SDQ questionnaire, so as an increase in the mean score of the prosocial behaviours post-intervention. This outcome highlights the potential for interventions like Triple P to make a lasting impact on the treatment and management of ADHD. The solution to the complexities of ADHD is not solely in diagnosing and medicating the child, but in adopting a holistic approach that involves understanding and addressing the child's behaviours from the perspective of their caregivers. By recognizing the underlying motives and natural needs of children, caregivers can better support the child's development. Educating mothers in the Palestinian region on the evidence-based Triple P approach fosters a sense of self-agency in managing their children, ultimately improving the quality of life for both the child and the mother

5.2. The social political and cultural feasibility of triple p delivery in Palestine

The current study represents the first of its kind conducted in Palestine, exploring the feasibility and accessibility of delivering an evidence-based intervention like Triple P (Positive Parenting Program) in a region marked by complex sociopolitical dynamics. Implementing such a program in Palestine is no easy task, given the multifaceted challenges of the region. The delivery of evidence-based programs must be tailored to local contexts and family needs, while remaining sensitive to cultural factors (Sanders, 2023). Previous studies have demonstrated the efficacy of Triple P across various sociocultural and linguistic settings, such as among Quebec parents, where participation in group Triple P resulted in positive outcomes, sustained even in a two-year follow-up (Gagné, Piché, et al., 2023). Additionally, Triple P has proven effective in socially disadvantaged communities when delivered as a public health intervention, significantly contributing to the prevention of child maltreatment (Sanders et al., 2024). Palestinian mothers of children with ADHD, however, face a unique "triple burden," which includes managing the political instability of living in a

conflict zone, enduring financial difficulties, and coping with their child's mental health challenges. These mothers bear a heavy caregiving load, with studies showing that they exhibit higher levels of depressive symptoms compared to mothers of children without ADHD (Amro, 2024; Serag et al., 2024). Furthermore, the ongoing sociopolitical conflict imposes erratic and unsteady living conditions that can hinder effective mother-child interaction and limit access to professional medical support. Under such circumstances, the burden of care increases, especially during periods of lockdown or restricted movement, but these situations can also present opportunities to improve caregiving approaches by increasing understanding and empathy (Patkar et al., 2023). One of the notable challenges faced by mothers in this study was the inconsistency in their daily lives, particularly regarding their child’s education. Many mothers in the sample described fluctuating conditions—periods where their child attended school regularly, contrasted with times when they were forced into online learning due to safety concerns in the country. This inconsistency complicated the delivery and implementation of Triple P, especially when sessions had to be shifted to an online format. This shift presented a range of challenges, such as

the inability to afford internet access or poor connection quality. However, some mothers found the online sessions convenient and satisfactory, while others viewed them as an effective way to engage with mental health support and circumvent barriers to in-person meetings, such as stigma and travel difficulties (Rahali et al., 2023)

Online delivery of Triple P also helped mitigate the stigma associated with attending mental health clinics, allowing mothers to access support discreetly and engage more fully. Studies have shown that offering remote interventions can enhance participation by overcoming logistical barriers, including travel restrictions and societal stigma (Smaik et al., 2023). In this context, parenting interventions like Triple P are critical tools for addressing the challenges faced by Palestinian mothers. The need to integrate such programs into broader treatment plans is evident, as these mothers require support not only to manage their child's behaviour but also to alleviate their own stress and mental health struggles.

To ensure the success of such programs, it is essential to address the barriers that hinder parents' engagement with behaviour management interventions. Strategies such as providing problem-solving support for treatment attendance

and scaffolding parents' ability to complete homework assignments are necessary to increase commitment and help them implement the necessary changes to improve their child's behaviour (Bailey et al., 2024). Additionally, turning to religion and seeking social support were identified as key coping strategies for improving mothers' mental health in this population (Serag et al., 2024). These culturally relevant supports are invaluable in helping mothers navigate the challenges of caregiving, particularly in regions with limited access to professional resources.

In conclusion, the findings underscore the critical need to customize parenting programs like Triple P to the specific sociocultural realities of the Palestinian context. By offering tailored interventions that address both the practical and emotional challenges faced by mothers of children with ADHD, such programs can significantly improve the quality of life for both the child and the mother, fostering a healthier family dynamic and enhancing community well-being.

5.3 In Light of Social Cognitive Theory (SCT)

Human impact is examined by the Social Cognitive Theory through the interaction of behavioural, environmental, and personal factors. It highlights how modelling,

reinforcement, and self-efficacy can promote skill development and behavioural change. The findings of this study support SCT, showing that Triple P had a positive impact on mothers' parenting skills and the behavioural outcomes of their ADHD children. The improvement of self-efficacy, as a central idea for SCT, is reflected in the increase in mothers' scores for the sense of competence through modeling, feedback, and reinforcement, the Triple P intervention improved mothers' coping mechanisms and parenting techniques, empowering them to better handle difficult behaviours. Mastery experiences are a strong source of self-efficacy, and self-assurance in their ability to manage parenting effectively. Moreover, the positive shifting in parenting practices and attitudes towards effective positive consistent management skills reflect the idea of personal change as a critical construct of SCT.

The child's reduction in Hyperactivity symptoms with an increase in the child's prosocial behaviours has illustrated the holistic Triple P intervention effectiveness not only on the mother's attitude yet a broader parent-child dynamic which created a positive reciprocal environmental change conducive to positive child behaviour. This highlights the

idea that social and environmental circumstances can both influence and be influenced by changes in behaviour.

5.4. Limitations

The findings of this study must be interpreted within the context of several limitations. First, the study employed a pre-post-test design, which, while useful, limits the ability to assess long-term impacts. A more robust approach would be a longitudinal study with multiple follow-up assessment points to track sustained changes over time. Such an approach would provide a deeper understanding of the intervention's effectiveness and enhance the validity of the findings.

Second, the sample size used in this intervention may be considered relatively small, potentially limiting the generalizability of the results. However, it is important to note that previous research in similar contexts has utilized comparable sample sizes, providing some precedent for this approach. Nonetheless, future studies should aim for larger sample sizes to strengthen the statistical power and provide more comprehensive insights.

Third, the intervention was conducted by a single researcher, which contrasts with the more typical delivery of the Triple P program through organizations and collaborative agencies worldwide. This limitation may have influenced participants' responses, potentially leading to more socially desirable answers due to the close interaction with a sole researcher. The broader, multi-agency delivery of Triple P allows for a more neutral and standardized implementation, which helps mitigate such biases. Future studies would benefit from utilizing a more collaborative, multi-faceted delivery model to better align with global practices.

Finally, data collection occurred during a particularly challenging period—the War on the Gaza Strip and the ongoing siege and lockdown enforced by the political conflict in the region. These significant, uncontrollable factors may have confounded the results, affected the psychological state of participants, and possibly influenced their engagement with the intervention. The extreme stressors associated with war and conflict likely impacted the mental health and daily functioning of the mothers involved, which could have skewed the outcomes of the intervention.

5.5. Strengths

Despite the limitations mentioned above, this study is among the first of its kind in Palestine and holds great potential to address a significant gap in the literature. The implementation of the Triple P intervention, coupled with promising results, demonstrates that even small changes can lead to meaningful improvements. This success marks an important step toward establishing the effectiveness of the Triple P approach in a context with unique challenges and an urgent need for such interventions.

The study utilized a randomized controlled trial (RCT) design, which is widely regarded as one of the most rigorous methods for establishing cause-effect relationships and evaluating the effectiveness of treatments or interventions. By employing an RCT, this research was able to provide a clearer understanding of the benefits of the Triple P approach for mothers of children with ADHD. RCTs are particularly valuable in isolating the effects of an intervention by minimizing biases, thus offering a reliable basis for concluding that the observed changes in parenting outcomes were a direct result of the intervention itself.

Furthermore, the study adhered to the Consolidated Standards of Reporting Trials (CONSORT) guidelines, which are designed to improve the reporting of RCTs. This adherence adds to the study's credibility by ensuring that the findings are transparent, reproducible, and trustworthy. The application of CONSORT standards strengthens the validity and reliability of the results, making the study a valuable contribution to the field.

An added strength of this study lies in its tailored approach. In planning the intervention, careful consideration was given to the number and type of sessions for each participant, with the flexibility to adjust based on individual needs and circumstances. This customization ensured that the program was responsive to the diversity of challenges faced by the mothers, enhancing engagement and relevance. By recognizing and accommodating these differences, the study maximized the potential for the intervention to make a meaningful impact, even in a region as complex as Palestine.

Overall, while limitations exist, this study represents a significant step forward in evaluating the efficacy of the Triple P program in a Palestinian context. The rigorous design, tailored approach, and promising results demonstrate the program's potential to address critical gaps in parenting

interventions for ADHD and underscore the importance of continuing this work to further improve the well-being of children and families in the region.

5.6 Control group follow up

After completing the intervention and conducting preliminary analyses that demonstrated benefits outweighing potential risks, the control group was subsequently contacted and provided with all necessary intervention materials and detailed instructions for their benefit. These resources were shared through a designated WhatsApp group, ensuring participants could easily access the information at any time. To further support the control group, the researcher made themselves available within this group to answer questions, clarify instructions, and provide additional guidance as needed. This approach allowed the control group participants to implement the intervention at their own pace, with ongoing support available to address any uncertainties, fostering a positive and accessible experience for all involved. The researcher's availability also facilitated an open communication channel, encouraging participants to engage actively and seek clarification on best practices, ultimately

enhancing the potential effectiveness of the intervention for the control group.

5.7. Implications and Recommendations

Mental healthcare providers, researchers, and educators should prioritize the development of culturally appropriate, evidence-based interventions to support children with ADHD and promote their mothers' mental health. The findings of this study provide a strong foundation for practical, educational, and research-oriented recommendations that can drive meaningful change in the care of ADHD children and their families.

The study’s results offer robust evidence supporting the feasibility and effectiveness of the Triple P program in reducing disruptive behaviours in children with ADHD, enhancing mothers’ sense of competency, and improving their parenting attitudes. Evidence-based parenting support should become a policy priority, sustained through the integration of a comprehensive, multilevel system of parenting interventions. Such initiatives require an organizational commitment to evolve and maintain the program over time. In doing so, the ultimate goal—reducing social-emotional and behavioural problems in children while preventing maltreatment—can be achieved, with long-term positive effects on a child’s

confidence and personality development. By ensuring stable, supportive parenting environments, children will be better equipped to navigate life's challenges without becoming fragile or vulnerable.

It is essential to normalize participation in parenting support programs and to encourage their adoption as a healthy, desirable social need. Nurses, in particular, can play a crucial role by educating mothers of children with ADHD on effective parenting strategies and stress management techniques, empowering them to manage both their children's disruptive behaviours and their own stress (El-Sebaie et al., 2017). Additionally, policies should be implemented to guarantee parents' commitment and engagement in such programs, thereby promoting children's well-being through the positive outcomes of Triple P (Ozbek et al., 2019). Counselling clinics should also be established to increase awareness, competence, and coping strategies for mothers, ensuring effective responses to the needs of children with ADHD (Nagy et al., 2018). A holistic understanding of the transformative journey of children with ADHD, alongside their mothers' interactions with schools and communities, is vital for sustained success following parenting interventions.Future research should explore how parental ADHD symptoms influence engagement and outcomes

in behavioural parent training programs. Including fathers in these interventions is crucial, as their involvement would provide a more comprehensive support system. Additionally, a consistent system of follow-up and monitoring for families should be established to bridge gaps in care and maintain ongoing support. The educational experience for Triple P participants could be further enriched by incorporating peer feedback mechanisms (Asghari et al., 2024).

To ensure the sustainability of such interventions, it is also recommended that topics related to ADHD children and parental mental health be integrated into higher education curricula, particularly in public and mental health programs. Furthermore, future studies should replicate this research with larger and more diverse samples to improve generalizability. Longitudinal studies, in particular, are necessary to examine the long-term effects of the intervention.

Considering the potential mediators and moderators of intervention outcomes is also recommended. According to Kraemer et al. (2002), uncovering mediators clarifies the mechanisms through which interventions achieve their effects, potentially yielding larger impact sizes. Exploring moderators is particularly valuable in randomized controlled trials (RCTs), as it allows researchers to identify the conditions under which

interventions are most effective. Key moderating factors for the outcomes of Triple P include the intervention level, service delivery methods, setting, and the child's age (Li et al., 2021).

5.8 Conclusion

The results of this study provide strong evidence supporting the feasibility and effectiveness of Triple P in reducing hyperactivity symptoms in children with ADHD, increasing prosocial behaviours, and significantly improving mothers' sense of competency and parental attitudes. It is recommended that Triple P be integrated into the mental health services provided for mothers of children with ADHD in Palestine. This would offer a crucial resource for families and contribute to better outcomes for both children and parents.

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Appendices

Appendix 1

IRB approval

Arab American University
Institutional Review Board - Ramallah

الجامعة العربية الأمريكية
مجلس اخلاقيات البحث العلمي – رام الله

IRB Approval Letter

Study Title: "Effectiveness of Triple P Implementation on mothers of Children with Attention-Deficit/Hyperactivity Disorder, Improved Mother Attitude Increased Sense of competency and Behavioral Symptoms Reduction: Randomized Control Trial".

Submitted by: Nadia Abdal-Rahman Othman Amro

Date received: 18th August 2024

Date reviewed: 18th August 2024

Date approved: 19th August 2024

Your Study titled **"Effectiveness of Triple P Implementation on mothers of Children with Attention-Deficit/Hyperactivity Disorder, Improved Mother Attitude Increased Sense of competency and Behavioral Symptoms Reduction: Randomized Control Trial"** with the code number **"R-2024/A/131/N"** was reviewed by the Arab American University Institutional Review Board - Ramallah and it was approved on the 19th of August 2024.

Sajed Ghawadra, PhD
IRB-R Chairman
Arab American University of Palestine

الجامعة العربية الأمريكية، فلسطين
مجلس اخلاقيات البحث العلمي، رام الله
IRB-R
ARAB AMERICAN UNIVERSITY-PALESTINE
INSTITUTIONAL REVIEW BOARD - RAMALLAH

General Conditions:

1. Valid for 6 months from the date of approval.
2. It is important to inform the IRB-R with any modification of the approved study protocol.
3. The Bord appreciates a copy of the research when accomplished.

رام الله – فلسطين

Appendix 2

Informed Consent

I, ……..... (Name of Participant / optional) hereby agree to take part in the clinical research (clinical study/questionnaire study/drug trial) specified below:

Title of Study: "**Positive Parenting Program for Attention Deficit Hyperactivity Disorder: Maternal Perspective Shifts and Child Behaviour Problems Reduction in a Clinical Trial**" For the fulfilment of PhD degree, in Philosophy of Nursing, in AAUP.

The nature and purpose of which has been explained to me by…Nadia Amro., and interpreted by …nadia amro……. to the best of his/her ability in English.I have been told about the nature of the research in terms of methodology, possible adverse effects and complications (as per Participant Information Sheet).

After knowing and understanding all the possible advantages and disadvantages of this research, I voluntarily consent of my own free will to participate in the clinical research specified above.I understand that I can withdraw from this research **at any time without assigning any reason whatsoever. Date: …. Signature: …. I confirm that I have explained to the patient the nature and purpose of the above-mentioned research.**

Date: ……. Signature: …… the presence of: Name: … Signature: … (Witness for Signature of Participant)

Appendix 3

Measures

3.1-PSOC

4- مقياس الكفاءة الوالدية

التاريخ: ----------

يرجى تقييم مدى موافقتك أو عدم موافقتك على كل من العبارات التالية:

اسم الطفل :----------عمر الطفل:----------

الرقم	العبارة	لا أوافق بشدة	إلى حد ما لا أوافق	غير موافقة	موافقة	إلى حد ما موافقة	موافقة بشدة
		1	2	3	4	5	6
1	من السهل حل مشاكل رعاية الطفل بمجرد أن أعرف كيف تؤثر أفعالي على طفلي، وهو فهمٌ اكتسبتُه.						
2	بالرغم من أن كوني أماً قد يكون مجزياً إلا أنني أشعر بالإحباط الان مع طفلي في سنه الحالي.						
3	أذهب للنوم بذات الطريقة التي أصحو فيها بالصباح بالشعور أني لم أنجز الكثير.						
4	لا أعلم لماذا في بعض الأحيان حيث من المفترض أن امتلك زمام السيطرة، أشعر بأنه تم التلاعب بي.						
5	أمي كانت مجهزة بشكل أفضل مني لتكون أمّاً صالحة						
6	سأكون قدوة صالحة تُتبع للأم الجديدة لتتعلم ما تحتاجه لتكون أمّاً صالحة لأطفالها						
7	كوني أحد الوالدين للطفل هو شيء يمكن التحكم به والمشاكل يمكن حلها بسهولة						
8	مشكلة صعبة كوني أحد الوالدين من غير معرفة هل أقوم بعمل جيد أم سيء						
9	أحياناً أشعر أني لا أحصل على أي انجاز						
10	حسب توقعاتي الشخصية أوافق بأن لدي الخبرة بالعناية بالطفل						
11	إذا كان هناك شخص يعرف الجواب لما قد يز عج طفلي فهو انا						
12	مواهبي واهتماماتي في مجالات أخرى وليس في الأمومة						
13	باعتبار طول الفترة التي قضيتها بكوني أماً أشعر أنني معتادة على هذا الدور						
14	لو كان فقط وجودي كأم أكثر ممتعاً لكان لدي حافزاً لأكون أماً أفضل						
15	بصدق أعتقد أنه لدي كل المهارات اللازمة لأكون أماً صالحة لطفلي						
16	كوني أم يجعلني مشدودة ومتوترة						
17	كوني أماً صالحة هو مجزٍ ومرضي بحد ذاته						

1

3.2 PS

2- مقياس أنماط التربية **التاريخ:----------**

في وقت ما أو آخر، يتصرف جميع الأطفال بشكل سيء أو يفعلون أشياء قد تكون ضارة أو "خاطئة" أو التي لا يحبها الآباء. ومن الأمثلة على ذلك: ضرب شخص ما، الشكوى، رمي الطعام، نسيان الواجب المدرسي، عدم التقاط الألعاب، الكذب ، وجود نوبة غضب ، رفض الذهاب إلى الفراش ، الرغبة في بسكويت قبل العشاء ، الركض في الشارع ، الرد بالمناقشة ، العودة إلى المنزل متأخر... يتعامل الآباء بأساليب مختلفة في التعامل مع هذه الأنواع من المشاكل.

فيما يلي بنود تصف بعض أساليب التربية:

- **لكل بند، ضعي دائرة حول الرقم الذي يصف أسلوب تربيتك في التصرف الأنسب خلال الشهرين الماضيين مع طفلك**
- **حيث أنه من اليمين(1أو 2 أو 3)**
- **أما التصرف الذي يصف أسلوبك من الشمال (7 أو 6 أو 5)**
- **أما اذا كان يجمع ما بينهم نختار رقم 4**

اسم الطفل :---------- العمر :----------

العبارة	التصرف	الدرجة	التصرف
1) عندما يسيء طفلي السلوك	عادةً ما أنخرط في جدال طويل مع طفلي	1 2 3 4 5 6 7	لا أنخرط في جدال
2) عندما يسيء طفلي التصرف	أتحدث مع طفلي بروية و هدوء.	1 2 3 4 5 6 7	أرفع صوتي أو أصرخ.
3) بعد حدوث مشكلة مع طفلي	غالبًا ما أحمل نقمة عليه بخصوص المشكلة .	1 2 3 4 5 6 7	تعود الأمور إلى طبيعتها بسرعة.
4) عندما يفعل طفلي شيئًا لا يعجبني.	أفعل شيئًا بشأنه و أتصرف في كل مرة يفعلها	1 2 3 4 5 6 7	غالبا ما أتركه
5) عندما يكون هناك مشكلة مع طفلي.	تتراكم الأمور وأقوم بأشياء لا أقصد فعلها	1 2 3 4 5 6 7	لا تخرج الأمور عن السيطرة
6) عندما أعطي تحذيرًا عادلًا	غالبًا ما لا أنجز ما قلته وحذرته	1 2 3 4 5 6 7	أنجز دائما ما قلته
7) إذا انفعل طفلي عندما أقول له "لا."	أتراجع وأستسلم لطفلي	1 2 3 4 5 6 7	ألتزم بما قلت

الصفحة 1

3.3 SDQ

3-استبيان مواطن القوة والصعوبة للوالدين (4-17) سنة التاريخ:----------

- يُرجى الاجابة على كل بند بما يلي **(غير صحيح، صحيح نوعا ما، أو صحيح بالتأكيد)** بوضع علامة√ **في المربع**
- حاولي أن تكوني دقيقة في إجاباتك، سوف يساعدنا كثيرا إذا أجبت على كل بند حتى وان كنت غير متأكدة أو تري أنه غير مناسب.
- يُرجى أن تكون اجابتك حول سلوك الطفل خلال الستة الأشهر الأخيرة أو هذه السنة الدراسية

☐ ولد ☐ بنت

اسم الطفل:---------- عمر الطفل ----------

العبارة	غير صحيح	صحيح نوعا ما	صحيح بالتأكيد
1. يهتم بمشاعر الآخرين	☐	☐	☐
2. لا يستطيع البقاء او الاستقرار في مكان واحد، كثير الحركة	☐	☐	☐
3. كثيراً ما يشكو من صداع او آلام في البطن أو الشعور بالغثيان	☐	☐	☐
4. يُشرك الاخرين بسهولة فيما يخصه (لعب، أقلام، ألعاب، حلويات .... الخ)	☐	☐	☐
5. كثيراً ما تنتابه نوبات من الغضب الشديد أو سريع الغضب	☐	☐	☐
6. يحب العزلة، يميل الى اللعب لوحده	☐	☐	☐
7. مطيع على وجه العموم، عادةً يفعل ما يطلبه منه الكبار	☐	☐	☐
8. يقلق من أشياء كثيرة، في معظم الأوقات يبدو عليه القلق	☐	☐	☐
9. يساعد الآخرين إذا ما حدث لأحدهم مكروه	☐	☐	☐
10.يتململ او يتلوى باستمرار، جسمه في حركه مستمرة أثناء جلوسه	☐	☐	☐
11.لديه على الأقل صديق واحد جيد	☐	☐	☐
12. كثيراً ما يتعارك مع الآخرين من نفس سنه أو يستأسد عليهم	☐	☐	☐
13.كثيراً ما يكون غير سعيد، حزين أو يبكي بسهوله	☐	☐	☐
14.في الغالب محبوب ممن هم في سنه	☐	☐	☐
15.يتشتت انتباهه بسرعه وقليل التركيز	☐	☐	☐
16.عصبي في المواقف الجديدة، من السهل أن يفقد ثقته بنفسه	☐	☐	☐

1

العبارة	غير صحيح	صحيح نوعاما	صحيح بالتأكيد
17.لطيف مع من هم أصغر منه	□	□	□
18.كثيراً ما يكذب، يخدع أو يغش	□	□	□
19.يستهزأ منه او يستأسد عليه من هم في سنه	□	□	□
20.كثيراً ما يتطوع لمساعدة الاخرين مثل الوالدين، المُدرسين، أو الأطفال الآخرين	□	□	□
21.يفكر قبل أن يتصرف	□	□	□
22.يسرق من البيت أو المدرسة أو من أماكن أخرى	□	□	□
23. ينسجم بشكل أفضل وأكثر مع الكبار من الأطفال الذين هم في نفس سنه	□	□	□
24.يخاف من أشياء كثيره، من السهل تخويفه	□	□	□
25.يتابع أداء الواجبات حتى النهاية. لديه انتباه جيد	□	□	□

26 -بشكل عام تعتقدين أن طفلك لديه صعوبات بالعواطف، التركيز والسلوك و تؤثر على التعايش مع الآخرين؟

□لا □نعم صعوبات خفيفة □نعم صعوبات واضحة □نعم صعوبات كثيرة

27 - ما هي المدة التي ظهرت فيها هذه الصعوبات؟

□أقل من شهر □1-5 اشهر □6-12 أشهر □أكثر من سنة

28 - هل هذه الصعوبات تضايق طفلك أو تؤثر عليه:

□لا اطلاقاً □قليلاً □بشكل متوسط □كثيراً

29- هل هذه الصعوبات تؤثر على يوميات طفلك في البيت :

□لا اطلاقاً □قليلاً □بشكل متوسط □كثيراً

30- هل هذه الصعوبات تؤثر على يوميات طفلك في تكوين الصداقات :

□لا اطلاقاً □قليلاً □بشكل متوسط □كثيراً

31- هل هذه الصعوبات تؤثر على يوميات طفلك في الصف أو تعليمه :

□لا اطلاقاً □قليلاً □بشكل متوسط □كثيراً

32- هل هذه الصعوبات تؤثر على الأنشطة الترفيهية :

□لا اطلاقاً □قليلاً □بشكل متوسط □كثيراً

33- هل هذه الصعوبات تضع عبئاً على العائلة ككل:

□لا اطلاقاً □قليلاً □بشكل متوسط □كثيراً

2

Appendix 4

Certificate of Triple P Training

This is to certify that

Nadia Amro

is an accredited provider of

LEVEL 4

GROUP TRIPLE P

May 16, 2023

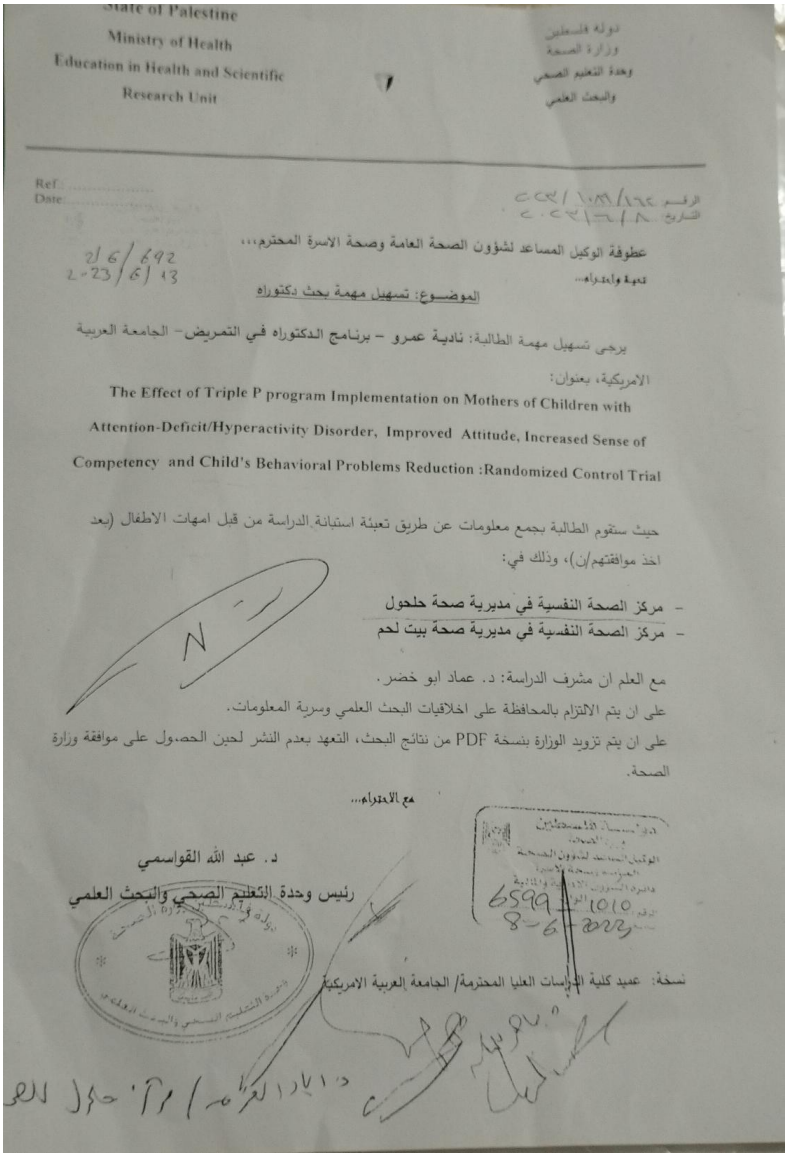
Matthew R Sanders, AO, PhD
Foundation Professor of Parenting Studies and Family Psychology
Parenting and Family Support Centre
The University of Queensland
Founder of the Triple P – Positive Parenting Program®

RECOGNITION OF NON-AWARD PROGRAM

Completion of this program does not provide credit points towards the official academic courses and awards of the University

Appendix 5

Ministry of Health Approval



State of Palestine
Ministry of Health
Education in Health and Scientific
Research Unit

دولة فلسطين
وزارة الصحة
وحدة التعليم الصحي
والبحث العلمي

Ref:
Date:

الرقم
التاريخ

2/6/892
2-23/6/13

عطوفة الوكيل المساعد لشؤون الصحة العامة وصحة الاسرة المحترم،،،

تحية واحترام...

الموضـــوع: تسهيل مهمة بحث دكتوراه

يرجى تسهيل مهمة الطالبة: نادية عمرو – برنامج الدكتوراه في التمريض- الجامعة العربية الامريكية، بعنوان:

The Effect of Triple P program Implementation on Mothers of Children with Attention-Deficit/Hyperactivity Disorder, Improved Attitude, Increased Sense of Competency and Child's Behavioral Problems Reduction :Randomized Control Trial

حيث ستقوم الطالبة بجمع معلومات عن طريق تعبئة استبانة الدراسة من قبل امهات الاطفال (بعد اخذ موافقتهم/ن)، وذلك في:

- مركز الصحة النفسية في مديرية صحة جلجول
- مركز الصحة النفسية في مديرية صحة بيت لحم

مع العلم ان مشرف الدراسة: د. عماد ابو خضر.

على ان يتم الالتزام بالمحافظة على اخلاقيات البحث العلمي وسرية المعلومات.

على ان يتم تزويد الوزارة بنسخة PDF من نتائج البحث، التعهد بعدم النشر لحين الحصول على موافقة وزارة الصحة.

مع الاحترام...

د. عبد الله القواسمي
رئيس وحدة التعليم الصحي والبحث العلمي

6599 1010
8-6-2022

نسخة: عميد كلية الدراسات العليا المحترمة/ الجامعة العربية الامريكية

Appendix 6

Demographic data

1-معلومات عامة **التاريخ:----------**

أتقدم بجزيل الشكر من حضرتك للموافقة على ملء البيانات و التي تهدف لجمع بعض المعلومات العامة الخاصة بالأم و الطفل الذي لديه فرط حركة و نقص انتباه , الرجاء وضع اشارة √ على المربع الذي يوافق الاجابة ملاحظة : سيتم تناول و حفظ هذه البيانات بسرية تامة لأغراض البحث و لن تتاح لأي مصدر اخر .

1-عمر الأم بالسنوات :----------

اسم الطفل :----------عمر الطفل:----------

ملاحظة: اذا كان هناك أكثر من طفل الرجاء اعتماد الطفل الأصغر المشخص للدراسة

2-الحالة الاجتماعية للأم:

□ متزوجة □ مطلقة □ أرملة □ منفصلة

3-المؤهلات التعليمية للأم :

□ غير متعلم □ابتدائي □ثانوي □ توجيهي ناجح □ دبلوم سنتين □ بكالوريوس □دراسات عليا

4-هل لديك عمل؟ □ نعم □ لا

اذا كان الجواب نعم ما هو طبيعة العمل ----------□ جزئي □ كلي

5-المؤهلات التعليمية للأب:

□ غير متعلم □ابتدائي □ثانوي □ توجيهي ناجح □ دبلوم سنتين □ بكالوريوس □دراسات عليا

6- جنس الطفل المصاب بفرط الحركة و نقص الانتباه((المعني للدراسة) □ ذكر □ أنثى

7-هل يوجد لديك اطفال اخرين يعانون من فرط الحركة و نقص الانتباه □ نعم □ لا

اذا كان الجواب نعم , الرجاء تفصيل العدد مع الجنس و العمر

-1	□ ذكر	□ أنثى	العمر
-2	□ ذكر	□ أنثى	العمر
-3	□ ذكر	□ أنثى	العمر

8- منذ متى(بالسنوات أو الأشهر) تم تشخيص طفلك بفرط الحركة و نقص الانتباه ؟

9- هل يحصل الطفل على علاج لفرط الحركة و نقص الانتباه من:

□عيادة خاصة □عيادة حكومية □وكالة الغوث □ مركز متخصص □ غير ملتحق

10- متى كان تاريخ التحاق طفلك بالعلاج ----------

11- هل يحصل الطفل على علاج :

□دوائي □سلوكي و نفسي □الاثنان معاً □لا يحصل على أي منها

□ غير ذلك, الرجاء التوضيح ----------

12- نوع التأمين الصحي

□تأمين خاص □ تأمين حكومي □تأمين وكالة □تأمين أسير / شهيد □لا يوجد تأمين □ غير ذلك

13- هل يشمل التأمين تكاليف رعاية الطفل المشخص بفرط الحركة و نقص الانتباه ؟

□ نعم □ لا

14- هل تم دمج طفلك في التعليم المدرسي ؟ □نعم □ لا

15-اذا كان الجواب نعم ,أين يتم تعليم الطفل ؟ هل هو في:

□مدرسة خاصة □مدرسة حكومية □وكالة الغوث □مركز متخصص □ غير ملتحق

16- كم تبلغ تكاليف علاج الطفل المصاب بفرط الحركة و التي تشمل (المراكز الخاصة أو المدرسة, كشفية الطبيب و الادوية)

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17- هل يعاني الطفل من أمراض أخرى ؟ □نعم □ لا

اذا الجواب نعم الرجاء التوضيح ما هو ----------

18- مستوى الدخل بالشيكل:

□أقل من 1500 □1600-3000 □3000-4000 □أكثر من 4000

19- حالة الأم الصحية:

هل تعانين من أي مشاكل صحية جسدية (ضغط ,سكري, غدد, اوجاع ظهر) □نعم □ لا

هل تعانين من أي مشاكل نفسية (اكتئاب, قلق, توتر) □نعم □ لا

20- هل سبق و أن طلبت مساعدة متخصصة مما يلي:

أخصائي نفسي	□نعم	□ لا
طبيب أمراض عصبية	□نعم	□ لا
استشاري نفسي	□نعم	□ لا
أخصائي اجتماعي	□نعم	□ لا
مهنيون آخرون	□نعم	□ لا

21- ما هو الوصف الأقرب لظروف المنزل الذي يعيش فيه طفلك؟

□ مع أم و أب □ مع الأم فقط □ مع قريب من العائلة (جد أو جدة) □غير ذلك, الرجاء الكتابة

للتواصل أو الاستفسار:

اسم الباحثة : نادية عمرو

جوال 0599290809

برنامج التربية الإيجابية لاضطراب نقص الانتباه وفرط النشاط: تحولات في منظور الأم والحد من مشاكل سلوك الطفل في تجربة سريرية

نادية عبد الرحمن عمرو

لطيفة دردس

سلام الخطيب

ايمان شاويش

محمد اسيا

عليا مهادين

ملخص

الهدف: تهدف هذه الدراسة إلى تقييم فعالية برنامج "التربية الإيجابية (Triple P) "على الأمهات اللاتي لديهن أطفال يعانون من اضطراب فرط الحركة وتشتت الانتباه .(ADHD) وتركز الدراسة على قياس التغيرات في مواقف الأمهات تجاه التربية، وشعورهن بالكفاءة، وتقليل المشكلات السلوكية لدى الأطفال بعد تطبيق البرنامج.

المنهجية: استخدمت الدراسة منهجية التجربة العشوائية المحكمة .(RCT)حيث شاركت 64 أمًّا لأطفال تم تشخيصهم باضطراب فرط الحركة وتشتت الانتباه، تتراوح أعمارهم بين 6 و13 عامًا، تم

اختيارهم من عيادة الصحة النفسية للأطفال. بعد التوزيع العشوائي، تم تقسيم المشاركات إلى مجموعتين: مجموعة التدخل التي شاركت في برنامج "التربية الإيجابية" الجماعي، ومجموعة ضابطة . تم تقييم كلتا المجموعتين باستخدام أدوات قياس موحدة—وهي استبيان "نقاط القوة والصعوبات(SDQ) "، ومقياس التربية(PS) ، ومقياس الإحساس بالكفاءة الأبوية—(PSOC) قبل وبعد التدخل. تم تحليل الفروقات بين المجموعتين باستخدام اختبارات t المستقلة لمقارنة متوسط الدرجات قبل وبعد التدخل.

النتائج: دعمت النتائج فعالية برنامج "التربية الإيجابية" في تقليل التحديات السلوكية وتعزيز نتائج الأمهات. أفادت الأمهات في مجموعة التدخل بانخفاض في المشكلات السلوكية للأطفال (t(61) = −1.97، p = .053) مقارنة بالمجموعة الضابطة. بالإضافة إلى ذلك، ساهم التدخل في تحسين السلوك الاجتماعي الإيجابي للأطفال بشكل ملحوظ(t(62) = 2.529 ، p = .01).كما أظهر البرنامج تأثيرًا إيجابيًا على الأمهات، حيث أبدت المشاركات في مجموعة التدخل زيادة في الشعور بالكفاءة الأبوية (t(62) = 2.30، p = .02). علاوة على ذلك، تحسنت مواقف الأمهات تجاه التربية، كما عكستها النتيجة المتوسطة(M = 3.3 ، SD = 1.4، p = .01). تشير هذه النتائج إلى أن برنامج "التربية الإيجابية" يدعم بشكل فعال تحسين السلوك لدى الأطفال المصابين باضطراب فرط الحركة وتشتت الانتباه ويعزز قدرات الأمهات على التربية، مقارنة بالمجموعة الضابطة التي لم تتلقَّ أي تدخل.

الخلاصة: يمكن اعتبار برنامج "التربية الإيجابية" تدخلاً فعالاً في تأهيل الأمهات الفلسطينيات بالمهارات الأساسية لإدارة سلوك أطفالهن المصابين باضطراب فرط الحركة وتشتت الانتباه، مع الحفاظ على الصحة النفسية

الكلمات المفتاحية: الأطفال، الشعور بالكفاءة، اضطراب فرط الحركة ونقص الانتباه، المشاكل السلوكية,برنامج الوالدية الإيجابية.