AN OVERVIEW OF BEHAVIORAL INTERVENTION PROGRAMS FOR PARENTS OF CHILDREN WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

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Abstract - This systematic review analyzes 12 studies on behavioral intervention programs for parents of children with Attention Deficit Hyperactivity Disorder (ADHD), categorized into three approaches: Behavioral Parent Training (BPT), Parent-Child Interaction Therapy (PCIT), and Mindfulness-Based Parent Training (MBPT). BPT programs demonstrate equivalent efficacy in both in-person and online formats. PCIT reduces ADHD symptoms by 20-30% compared to control groups. MBPT shows superior outcomes in reducing parental stress and enhancing emotional self-regulation. Based on a comparative analysis of these programs' effectiveness and limitations, this research proposes a six-week intervention combining online delivery with direct support, adapted to Vietnamese cultural context. The model incorporates behavioral techniques, parent-child interaction, and mindfulness practices tailored for Vietnamese families.

Key words - Attention deficit hyperactivity disorder; behavioral intervention program for parents; behavioral intervention program for parents with children with attention deficit hyperactivity disorder.

1. Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is a common neurodevelopmental disorder characterized by deficits in attention, hyperactivity, and impulsivity, affecting approximately 5% of children worldwide [1].

School-aged children with ADHD often exhibit social skill deficits, low self-esteem, academic failure, and are at higher risk of injury. In adolescence, social and academic problems may persist, and impulsive or risky behaviors-such as motor vehicle accidents, sexually transmitted infections, unintended pregnancies, and substance abuse or smoking-are more prevalent among individuals with ADHD [2]. Some studies have shown that ADHD medications are effective in 70–80% of children with ADHD; however, for the remaining children, the impact may be neutral or even negative [3]. Furthermore, research indicates that the effects of medication are not long-lasting after discontinuation, and 20–30% of children with ADHD do not respond positively to pharmacological treatment [4]. Parents serve as primary caregivers, guides, coaches, leaders, and disciplinarians, and are key agents of change and socialization for their children [5]. Parenting behaviors greatly influence the condition, manifestations, and severity of ADHD in children. Numerous studies have demonstrated that positive and supportive parenting fosters a more constructive parent-child relationship and leads to greater improvement in children's problems compared to authoritarian or harsh parenting styles [6]. Experimental studies have also shown that behavioral parent training programs can enhance parenting skills, reduce parental stress, decrease child aggression within the family, and alleviate ADHD symptoms in children [7]. Therefore, it is crucial to review both international and Vietnamese research on behavioral parent training programs in general, and specifically for parents of children with ADHD. Such a review aims to clarify the procedures, research methods and tools applied, characteristics of the study populations, as well as the strengths and limitations of the findings. Based on this foundation, it is possible to develop a behavioral parent training program for parents of children with ADHD that is culturally appropriate and tailored to the conditions in Vietnam, while also ensuring the necessary program content requirements.

2. Methods

Theoretical Analysis Method: This approach involved analyzing various sources of literature including scientific journals and reports, academic works, and information from archival sources, examining authorship, and reviewing content related to behavioral intervention programs for parents of children with ADHD.

Theoretical Synthesis Method: This method included supplementing literature, analyzing gaps or inconsistencies, and selecting sufficient sources to construct arguments. Materials were arranged chronologically to identify developmental trends and organizing materials by cause-and-effect relationships to understand interactions.

Classification Method: Studies were categorized into different approaches based on the content of intervention programs. This approach helped identify developmental patterns of the subject, the advancement in scientific knowledge, and enabled prediction of new trends in scientific and practical development.

3. Results

3.1. Behavioral training programs for parents of children with ADHD

In this line of research, authors focus on behavioral parent training (BPT) programs that equip parents with

strategies to manage the behaviors of children with ADHD. The primary aim is to change parents' perceptions regarding their children's behavioral issues and to enhance parenting skills in the process of raising their children.

The study by M. Östberg and A. M. Rydell [8] evaluated the effectiveness of a combined parent and teacher management training program for children with ADHD, conducted at a child and adolescent psychiatry clinic in Sweden. The program aimed to assess the efficacy of a group-based training intervention for both parents (BPT) and teachers (BTT) in reducing ADHD and Oppositional Defiant Disorder (ODD) symptoms in children, as well as disruptive behaviors. The program content included several adaptations: (1) the "time-out" technique was omitted due to parents' inability to implement it effectively, which led to daily conflicts; (2) homework assignments were tailored to issues reported by both parents and teachers, aiming to boost motivation for completing the exercises, though this also extended the training process for problem-solving skills. The key strength of this study is its multisystemic approach, which fosters consistency between home and school environments-a crucial factor in ADHD management. However, the assessment relied mainly on parent reports, which may lack objectivity. The program was delivered in group format, with representatives for eight children; parents attended ten weekly sessions (each lasting two hours), teachers attended eight sessions, and data were collected at three time points. The sample included 61 parents and 68 teachers, randomly assigned to experimental and control groups, with evaluation based on parent reports. The results indicated reductions in ADHD and ODD symptoms, demonstrating a positive impact on disruptive behaviors. The study recommends that both parents and teachers participate in such interventions. In the Vietnamese context, this family–school collaboration model aligns well with the cultural respect for teachers' roles. However, the ten-session duration may be challenging for parents with busy work schedules, and the cultural factor of "saving face" may hinder open sharing of family difficulties in group settings, necessitating methodological adjustments for application in Vietnam. Nevertheless, the direction of family–school collaboration in ADHD intervention is consistent with the comprehensive educational model being promoted in Vietnam.

The study by R. Loren et al. [9] involved 241 parents of children with ADHD aged 6 to 12 years, conducted over three years. The program aimed to improve behavioral outcomes for children with ADHD and enhance parental confidence in managing their children's behavior. The manualized BPT program consisted of eight sessions: the first focused on providing information and understanding about ADHD to manage challenging behaviors effectively; six subsequent sessions addressed specific behavioral strategies for parent–child interactions, promoting positive behaviors through preventive management systems, use of time-outs, reducing problematic behaviors, and managing behavior in public settings; one session covered school-related issues, focusing on daily behavior report systems and homework structure; and the final session addressed prevention strategies. The main strengths of this study include its large sample size (241 parents) and long follow-up period (three years), which lend high reliability to the findings, as well as a comprehensive program structure covering various real-life situations for children with ADHD. However, the absence of a control group and the lack of evaluation from sources other than parents (such as teachers or direct observation) are notable limitations. The program was delivered in group format, with sessions organized by specific content. Parents of children aged 6–12 years with ADHD participated in the group program over three years. Results showed improvements in child behavior across all domains of the Disability Rating Scale, and parents reported increased confidence in managing their children's behavior. In the Vietnamese context, this eight-session BPT model is appropriate due to its comprehensiveness and emphasis on the central role of parents. Particularly, the session on managing behavior in public is highly relevant to the Vietnamese cultural emphasis on children's appropriate public conduct. However, the three-year follow-up period should be adjusted for practical implementation in Vietnam, and multi-source evaluation should be incorporated to enhance objectivity.

The study by Myers et al. [10], "Providing Behavioral Parent Training via Telehealth for Families in Underserved Areas: A Randomized Pilot Study", was conducted among families of children with ADHD living in rural and remote areas in the United States. The objective was to evaluate the effectiveness of delivering BPT via videoteleconferencing (VTC) compared to in-person clinic-based treatment, particularly for families with limited access to services. The BPT program included evidence-based behavioral management techniques such as: establishing consistent rules and consequences, time-out, rewarding positive behavior, effective command-giving, and providing parents with ADHD knowledge and specific behavioral management strategies. The study's main strengths are its randomized controlled trial design with a large sample size (164 children) and multi-timepoint evaluation, providing high reliability for the results. The finding of equivalent effectiveness between VTC and in-person formats is significant for expanding access to services. However, the study did not assess in detail the cultural and socioeconomic factors that may influence intervention effectiveness, nor did it provide long-term (beyond 6 months) evaluation. The intervention lasted 22 weeks, with weekly 60–90-minute sessions; the VTC group used home-based videoconferencing equipment to connect with therapists, while the control group attended in-person sessions at the clinic. The sample included 164 children (aged 5–12 years) diagnosed with ADHD and their families, randomly assigned to two intervention groups; assessments were conducted before, during, and after the intervention (6 months). The results showed no significant differences between groups regarding improvements in children's ADHD symptoms, parental behavioral management skills, or family satisfaction with treatment; both groups reported significant improvements post-intervention, with effects maintained at follow-up. The VTC group also benefited from improved access and reduced barriers related to geography, time, and travel

costs. In the Vietnamese context, this telehealth model holds particular promise for addressing the uneven distribution of ADHD specialists (primarily concentrated in major cities) and the high travel costs for families in remote areas. However, attention should be paid to infrastructure barriers (internet access and technology availability) in rural Vietnam, and program content should be adapted to the cultural and practical realities of Vietnamese parenting.

Additionally, the study by Jensen et al. [11], "Comparing Online and In-Person Behavioral Parent Training for Children with ADHD and ODD: A Randomized Controlled Trial", was conducted at child psychology and development centers in Northern Europe. The objective was to compare the effectiveness of BPT delivered online versus in-person for parents of children with both ADHD and ODD. The program included standard BPT modules: understanding ADHD and ODD, building a positive parent–child relationship, techniques for reinforcing desired behaviors through positive reinforcement, selective ignoring, reward systems, setting limits and appropriate consequences, managing oppositional behaviors, and advanced problem-solving strategies. The study's notable strengths are its comprehensive evaluation design with multiple sources of information (parents, teachers, and direct observation) and long follow-up period (6 months), providing high reliability for the results. A key finding was the higher completion rate in the online group (92% compared to 78%), which has important practical implications for sustaining intervention effectiveness. However, the sample was drawn from Nordic countries with relatively homogeneous socioeconomic and cultural conditions, which may limit generalizability to other cultures. The study was designed as a randomized controlled trial with two intervention groups: the in-person group attended training sessions at the center, while the online group participated via video platform; both groups received 10 weekly sessions, each lasting two hours, with identical content delivered through different modalities. Parents were assigned home practice tasks and reported outcomes at subsequent sessions. The sample included 128 families with children aged 6–12 years diagnosed with both ADHD and ODD, with assessments conducted before, immediately after, and at 3- and 6-month follow-ups. Results showed that both groups demonstrated significant improvements in child behavior, reductions in ADHD and ODD symptoms, improved parenting skills, and reduced parental stress, with effects maintained at the 6-month follow-up. In the Vietnamese context, these findings are particularly valuable for developing online intervention services, especially given the widespread internet coverage and high mobile device usage in Vietnam. The higher completion rate in the online group also fits well with the cultural and economic characteristics of modern Vietnamese families, where parents are often busy with work and urban travel can be challenging. However, program content should be adjusted to align with Vietnamese parenting styles, especially regarding strategies for setting limits and consequences, which may need to be tailored to fit Vietnamese family values.

3.2. Parent–Child Interaction Programs

The study by F. M. Manee and R. Haggi [12] on "Investigating the Effectiveness of Parent–Child Interaction Therapy (PCIT) in Improving Symptoms of Children with ADHD" was conducted in Iran. The study aimed to examine the effectiveness of modifying the mother–child interaction model in improving symptoms in children with ADHD, specifically reducing inattentiveness and hyperactivity-impulsivity. The PCIT program was structured in two phases: the first phase, similar to traditional play therapy, focused on strengthening the parent–child relationship, promoting positive parenting, and improving the child's social skills; the second phase involved clinical behavioral therapy, targeting improved parental limit-setting and consistent rule enforcement to reduce negative child behaviors. The main strength of this study is its intervention approach centered on improving the quality of parent–child interaction, differing from BPT programs that primarily focus on behavioral management techniques. The intervention showed relatively high effectiveness ($F = 96.25$, $p < 0.01$ for hyperactivity-impulsivity symptoms), indicating the potential of this method for ADHD intervention. However, significant methodological limitations include a small sample size (30 mothers), absence of a control group, and a focus solely on boys within a narrow age range (8–10 years), limiting the generalizability of results. The intervention process involved methods aimed at changing communication, behavior, and responses of mothers to break ineffective interaction cycles. The study included 30 mothers with sons (aged 8–10) diagnosed with ADHD in Urmia, Iran, with data collected via maternal reports. Data analysis indicated that the PCIT program effectively reduced and improved inattentiveness and hyperactivity-impulsivity symptoms in children with ADHD. In the Vietnamese context, the PCIT model has high applicability potential due to its alignment with family values emphasizing close parent–child relationships. However, adjustments are needed for limit-setting practices to fit traditional parenting styles and to extend participation to fathers and grandparents-who often play important caregiving roles in Vietnamese families.

The study by Z. Azhadari et al. [13] titled "The Role of Parent–Child Interaction Therapy (PCIT) and Mindfulness Therapy on Behavioral Problems of Children with ADHD" compared the effectiveness of two intervention approaches. The study aimed to assess the roles of PCIT and mindfulness therapy in improving behavioral problems in children with ADHD, as well as to compare the effectiveness of these two methods. The PCIT program emphasized parental influence on children, modifying parental perceptions and behaviors toward the child, and training parents in providing appropriate attention and interaction. Specifically, parents were instructed in practical skills such as "no rules", "with rules", selective ignoring, attention strategies, modeling, decision-making skills, and guidance in choosing home activities. The main strength of this study is its direct comparative design between two different interventions with a control group, allowing for the assessment of relative efficacy. Results indicated that PCIT was superior to

mindfulness therapy for children with ADHD-a key finding to inform intervention selection. However, limitations included a relatively small sample size (15 parents per group), lack of multi-source evaluation beyond parent reports, and absence of long-term follow-up to assess maintenance of effects. The study was designed with three groups: Group A (PCIT), Group B (Mindfulness therapy), and Group C (control); parents in the two intervention groups participated in 12 weekly sessions, each lasting 60 minutes. The sample included parents of 45 children (aged 6–12) diagnosed with ADHD by clinical psychologists, with 15 participants per group. Results showed both intervention groups had significant reductions in behavioral problems, but the PCIT group achieved greater reductions in ADHD symptoms and signs. The study also noted challenges such as some parents' lack of awareness about the research topic, incomplete cooperation, and technical difficulties in collecting online questionnaire data. In the Vietnamese context, the finding of PCIT's superior efficacy is significant for intervention selection. However, mindfulness practices, rooted in Buddhism, may have higher cultural acceptance in Vietnam than in the original study setting. Parental cooperation should also be considered, as awareness of ADHD remains limited in Vietnam, potentially requiring additional awareness-raising activities before implementing intervention programs.

The study by Funderburk et al. [14] "Parent–Child Interaction Therapy Delivered via Telemedicine for Children with ADHD: A Randomized Controlled Trial" evaluated the efficacy of PCIT delivered remotely versus in-person. The aim was to determine whether telemedicine-delivered PCIT could provide equivalent outcomes to in-person therapy in improving child behavior and the parent–child relationship. The PCIT program followed the traditional model with two main stages: Child-Directed Interaction (CDI) - focusing on teaching parents to use positive reinforcement to encourage appropriate behavior, and Parent-Directed Interaction (PDI) - helping parents learn effective discipline techniques for managing misbehavior. A notable strength of this study is its randomized controlled trial design with comprehensive evaluation, providing high-quality evidence of equivalent efficacy between remote and in-person PCIT. The use of technology enabling therapists to observe and coach in real time is a significant innovation, overcoming limitations of many other telehealth programs. However, the study lacks detailed information about the very young age group (3–7 years), specific sample size data, and information on the long-term sustainability of intervention effects. The intervention followed a randomized controlled trial design with two groups: telemedicine PCIT and in-person PCIT; remote sessions were delivered via video platform, allowing therapists to observe parent–child interactions in real time and provide immediate coaching and feedback; each session lasted 60–90 minutes and was held weekly. The study included children aged 3–7 years diagnosed with ADHD and their parents, randomly assigned to two intervention groups. Results showed both groups had significant improvements in child behavior and parent–child interaction; children in both groups had reductions in ADHD symptoms, including impulsivity, hyperactivity, and oppositional behavior; parents reported increased confidence in managing behavior and using effective discipline strategies; no significant differences were found between groups, confirming that remote PCIT is as effective as in-person PCIT. For Vietnam, the remote PCIT model has great potential for expanding mental health services for children in remote areas, reducing travel costs, and increasing access to specialists-especially given the scarcity of ADHD experts. However, challenges regarding internet infrastructure and access to technology in some areas, as well as the need for training PCIT specialists and online counseling skills, must be considered.

The study by G. J. DuPaul et al. [15] titled "In-Person Versus Online Behavioral Parent Training for Preschool Children at Risk for ADHD: Treatment Engagement and Outcomes" compared the effectiveness of two training modalities. The study aimed to evaluate and compare the effectiveness of in-person and online Behavioral Parent Training (BPT) in improving behavioral problems in preschool children at risk for ADHD, as well as to assess parental engagement in treatment. The BPT program consisted of 10 sessions covering behavioral management strategies: education about ADHD, positive attention techniques, effective instruction, development of a token economy system, use of appropriate consequences, collaboration with schools, and strategies for maintaining gains. A notable strength of the study is its focus on young children (3–5 years)-an age group rarely targeted in prior ADHD interventions-along with a comprehensive evaluation design (parents, teachers, direct observation) and long-term follow-up (6 months). The finding of higher completion and engagement rates in the online group is of practical importance, suggesting this modality can address barriers to mental health care participation. However, the sample only included children "at risk" for ADHD, not formally diagnosed, and lacked long-term follow-up beyond 6 months. The study followed a randomized controlled trial design with three groups: in-person BPT, online BPT, and a control group (received only ADHD information); the program lasted 10 weeks, with weekly sessions; evaluations were conducted at three time points: pre-intervention, post-intervention, and 6-month follow-up. The study included 147 preschool and early elementary children (aged 3–5) at risk for ADHD, randomly assigned to three groups. Results indicated that both BPT formats led to significant behavioral improvements compared to the control group; there was no significant difference in effectiveness between in-person and online BPT; parents in the online BPT group completed more sessions (M = 7.84) than the in-person group (M = 6.82); notably, the online group had a significantly lower dropout rate (8% vs. 18%). In Vietnam, the equivalent effectiveness of online BPT is particularly valuable for developing early ADHD intervention. The higher completion and lower dropout rates fit the reality of busy Vietnamese parents who may find it difficult to attend therapy sessions regularly. However, considerations regarding internet access,

parents' technological proficiency in different regions, and the need to culturally adapt program content for Vietnamese families are necessary.

3.3. Application of mindfulness-based interventions in parenting for children with ADHD

The study by M. R. Dvorsky and W. E. Pelham [16] focused on evaluating the impact of a mindfulness-enhanced behavioral parent training (MBPT) program for parents of children with ADHD. The aim of the study was to assess the effectiveness of MBPT on child behavior and parental stress, and to compare it with traditional behavioral parent training (BPT). The content of the MBPT program included an introduction to ADHD and an overview of mindfulness, mindfulness exercises (such as the raisin exercise, body scan, sitting meditation, listening meditation, walking meditation), school strategies, child-centered play, controlling automatic reactions, selective ignoring techniques, problem-solving, application of consequences, and summary. A notable strength of the study is its innovative approach in integrating mindfulness techniques into traditional BPT, addressing not only the child's behavioral management needs but also improving parents' emotional self-regulation-an important but often overlooked factor in ADHD interventions. The outstanding results in reducing children's impulsivity and hyperactivity, along with reductions in parental stress, demonstrate the potential of this approach. However, the study lacks detailed information on sample size, control design, and specific evaluation methods, making it difficult to assess the reliability of the results. In terms of procedure, both groups (MBPT and traditional BPT) participated in weekly behavioral training sessions, with the MBPT group receiving additional mindfulness exercises; parents were trained to use positive reinforcement, set appropriate limits, and apply consistent consequences for misbehavior, combined with mindfulness techniques; parents were encouraged to practice mindfulness in daily life and incorporate it into interactions with their children. The study included parents of children aged 5–12 years diagnosed with ADHD. Results showed that the MBPT group had significantly greater reductions in ADHD symptoms in children, especially impulsivity and hyperactivity, compared to the traditional BPT group; children in the MBPT group demonstrated better self-regulation and fewer behavioral problems; parents in the MBPT group reported significantly reduced stress levels, improved coping abilities, and better emotional management; the quality of parent–child interactions improved as parents became calmer, more patient, and more attentive. In the Vietnamese context, the MBPT program has particular application potential due to its alignment with Buddhist values and traditional spiritual practices. Mindfulness exercises such as breathing meditation and walking meditation can be easily accepted and integrated into Vietnamese cultural life. This approach also aligns with modern educational trends in Vietnam, which increasingly emphasize developing emotional self-regulation skills for both parents and children. However, when implementing, it is necessary to adapt certain mindfulness exercises to better fit the local cultural context and practical realities.

The study by Mah et al. [17] on "Mindfulness-Enhanced Behavioral Parent Training for Children with ADHD" was conducted to compare the effectiveness of two intervention methods. The aim was to evaluate the effectiveness of mindfulness-enhanced behavioral parent training (MBPT) versus traditional behavioral parent training (BPT) in improving ADHD symptoms in children, reducing parental stress, and enhancing parenting skills. The MBPT program included the core components of traditional BPT, such as positive behavioral reinforcement, selective ignoring techniques, setting limits, and consistent consequences; it also incorporated specific mindfulness techniques such as: practicing non-judgmental present-moment awareness, mindful breathing exercises, body scan, sitting meditation focused on the breath, and emotional self-regulation techniques; parents were guided to apply mindfulness in stressful situations while raising children with ADHD. A major strength of the study is its randomized controlled trial design with a large sample size (72 parents), multi-source evaluation (parent, teacher reports, and direct observation), and effect size reporting (d), providing a strong basis for conclusions. Notably, the finding of better sustained effects of MBPT at 3-month follow-up is important, suggesting the intervention's durability. However, the study is limited by a follow-up period of only 3 months, insufficient to evaluate long-term effects, and lacks information on program feasibility and cost. The procedure followed a randomized controlled trial design with two groups: MBPT and traditional BPT; the program lasted 8 weeks with weekly 2-hour training sessions; parents were assigned daily home practice and recorded their results; assessments were conducted at three time points: pre-intervention, post-intervention, and 3-month follow-up. The study included 72 parents of children aged 5–11 years diagnosed with ADHD, randomly assigned to the two intervention groups. Results showed the MBPT group had superior outcomes in reducing children's impulsivity and hyperactivity symptoms ($d = 0.57$ compared to $d = 0.31$ for BPT); parents in the MBPT group reported greater reductions in stress ($d = 0.68$ vs. $d = 0.42$) and better emotional regulation ($d = 0.73$ vs. $d = 0.39$). In the Vietnamese context, the advantages of MBPT in reducing stress and improving emotional regulation in parents can particularly meet the needs of Vietnamese parents, who often face dual pressures from work and child-rearing responsibilities. Additionally, mindfulness practices may be easily accepted in Vietnamese culture due to their alignment with Buddhist values. However, the program should be adapted linguistically and in terms of home practice duration to suit Vietnamese families, where parents often have limited free time for daily exercises.

The study by Lo et al. [18] on "The Impact of an Online Mindfulness-Based Program for Parents of Children with ADHD: A Pilot Mixed-Methods Study" evaluated the effectiveness of an online mindfulness program for parents of children with ADHD. The aim was to assess the feasibility and effectiveness of an online mindfulness-based program (MBP) for parents of children with ADHD, using a mixed-methods approach combining quantitative and qualitative data. The program included psychoeducational modules on ADHD and mindfulness,

daily mindfulness practice (such as mindful breathing, body scan, walking meditation), emotional regulation and response techniques, and strategies for applying mindfulness to challenging parenting situations; the program was delivered through 20 psychoeducational videos, guided home practice, and four online group meetings led by an instructor. A notable strength of the study is the innovative blend of self-paced online learning and four group sessions, balancing flexibility with social support. The mixed-methods approach (quantitative and qualitative) provided a comprehensive view of effectiveness and participant experience, while the high completion rate (83.4%) demonstrated the model's feasibility. However, significant limitations include a small sample size (43 parents), short follow-up period (1 month), and reliance mainly on self-report data, reducing result reliability. The procedure involved a 28-day program, with online access allowing parents to participate at their own pace while benefiting from the community aspect of group sessions; parents were required to practice mindfulness daily, track progress on the online platform, and attend scheduled group discussions; assessments were conducted pre-intervention, immediately post-intervention, and 1 month after program completion. The study included 43 parents of children aged 6–12 years diagnosed with ADHD, randomly assigned to intervention (n=21) and control (n=22) groups; data were collected via self-report scales, semi-structured interviews, and parent practice journals. Results showed parents reported significant reductions in children's ADHD symptoms, particularly impulsivity and hyperactivity ($d = 0.62$, $p < 0.01$); the program significantly reduced parental stress ($d = 0.71$, $p < 0.01$) and increased confidence in coping with daily challenges. In the Vietnamese context, this blended online and group session model has high application potential, especially in regions where internet access is available but local ADHD specialists are lacking. The high smartphone penetration rate in Vietnam facilitates implementation, while the short video format suits Vietnamese online media habits. However, adaptation should consider cultural context, particularly the challenge of encouraging Vietnamese parents to practice daily given high family and work responsibilities. Adjustments in practice duration, additional Vietnamese language support, and integration of culturally relevant examples are needed to enhance the program's suitability and effectiveness.

Based on the review of studies on parenting intervention programs, we observed that many behavioral parent training programs based on BPT, PCIT, or mindfulness theories have shown positive outcomes as reported by parents, such as improvement in children's ADHD symptoms, enhanced parenting skills, and improved parent–child relationships. Furthermore, online behavioral parent training programs have been rated by parents as equally effective as in-person ones, offering many benefits and conveniences. Currently, there are very few behavioral parent training programs for parents of children with ADHD in Vietnam, so we have chosen to develop a behavioral parent training program for parents of children with ADHD in Vietnam that includes:

- Content: strengthening adaptive behaviors, extinguishing maladaptive behaviors, interactive play with children, body and breathing awareness to improve attention and child behavior.

- Format: online with direct support from an assistant.

- Measurement: pre-intervention, immediately post-intervention, and 3 months post-intervention.

- Trainer: clinical psychology master's degree holder.

- Duration: 6 weeks.

4. Conclusion

Research on support programs for children with ADHD and behavioral parent training programs for parents of children with ADHD has been conducted by many researchers worldwide, with considerable variation in design. However, most programs share certain commonalities in terms of procedures, measurement methods, approaches, objectives, and content.

Studies have demonstrated the effectiveness of these programs in several aspects, such as reducing ADHD symptoms in children, lowering parental stress, strengthening the parent–child relationship, developing children's cognitive and behavioral management skills, and achieving high participant satisfaction. Importantly, medication did not directly influence the research outcomes.

Alongside these demonstrated benefits, the studies also reveal notable methodological limitations. Small sample sizes (such as Azhadari's et al.'s study [13] with only 15 parents per group) reduce the generalizability of findings and statistical power, potentially missing clinically significant minor effects. Non-objective group allocation in some studies introduces the risk of confounding due to uncontrolled variables, which may bias the true evaluation of intervention effectiveness. In particular, reliance solely on parental self-reports without multi-source assessment can lead to subjective bias, possibly inflating intervention effects due to participant expectancy. Therefore, future research should incorporate multi-informant evaluations (parents, teachers, experts, and direct behavioral observation), use larger samples, ensure rigorous randomization, and employ standardized assessment tools to guarantee objectivity and reliability of results.

Based on the synthesis and analysis of behavioral parent training programs and child-focused interventions for ADHD, we propose the following core components for a behavioral parent training program for parents of children with ADHD in Vietnam:

+ Session 1: Psychoeducation about the behavioral parent training program for parents of children with ADHD. The objective is to help parents identify adaptive and maladaptive child behaviors and understand their causes via the four-factor model. Structured behavior listing, behavioral assessment, and functional analysis techniques are applied. The approach is designed to help parents understand behavior from a scientific perspective and lay the foundation for subsequent intervention techniques.

+ Session 2: Building a positive parent–child relationship and effective instruction. The objective is to enhance the parent–child relationship and teach effective instruction skills. Techniques such as "Special Playtime" and the "Effective Instruction" process based on the PCIT model are used. Methods include modeling, role-playing, video-recorded practice, and monitoring maladaptive behaviors using standardized scales.

+ Session 3: Reinforcing adaptive behaviors. The objective is to develop skills for reinforcing adaptive behaviors. Techniques include "Specific Praise" and "Reward Systems" (setting up a behavior chart with cumulative rewards), based on the principles of positive reinforcement from learning theory. Methods involve identifying target behaviors, designing tracking charts, and establishing appropriate reward systems.

+ Session 4: Extinguishing maladaptive behaviors. The objective is to reduce maladaptive behaviors in children. Two main techniques are applied: "Active Ignoring" and "Time-Out", based on applied behavior analysis. Methods include identifying maladaptive behaviors suitable for each technique, modeling implementation procedures, and home practice.

+ Session 5: Enhancing attention and reducing hyperactivity through mindfulness and games. The objective is to strengthen children's attention and body control, while reducing hyperactive-impulsive behaviors. Techniques include "Mindful Breathing", "Body Scan", and "Body Control Games." These are grounded in mindfulness theory in psychology and research on the development of emotional-behavioral regulation. Methods involve step-by-step instruction in each technique, with short, age-appropriate practice durations.

+ Session 6: Managing behavior at school and in public settings. The objective is to help parents generalize learned skills to manage ADHD behaviors in settings outside the home. Two main techniques are applied: "Behavior Management at School" and "Public Behavior Management Strategies." Methods include real-life scenario simulations, designing behavior report forms and progress tracking templates, and summarizing the entire program with a maintenance plan. Techniques from previous sessions are integrated to ensure consistency in behavior management across all settings.

Synthesizing the research results shows that behavioral parent training, especially when combining online delivery with mindfulness practice, not only delivers high effectiveness in reducing ADHD symptoms in children but also meets the practical needs of modern Vietnamese families. The proposed intervention model, integrating the most effective elements from various international programs and adapted to Vietnamese cultural characteristics, promises a feasible and sustainable approach for supporting children with ADHD and their families in Vietnam.

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