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

Intervention protocol and analysis

Date :24/2/2025

Nadia Abed Alrahman Amro

NCT07069621

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)

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.

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.

Data Analysis

All statistical analyses were conducted using IBM SPSS Statistics version 27. Data were first screened for completeness and accuracy. Missing data were assumed to be random of less than 3%, and were excluded using listwise deletion. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to characterize demographic variables and baseline measures. Reliability for each outcome instrument was assessed using Cronbach's alpha coefficients and intraclass correlation coefficients (ICC). Normality of continuous variables was evaluated using the Kolmogorov-Smirnov test. To assess baseline equivalence between the intervention and control groups, independent samples *t*-tests were performed on all pre-intervention variables. The effectiveness of the Triple P intervention was analyzed by comparing pre- and post-intervention scores within and between groups using independent *t*-tests. Statistical significance was determined at an alpha level of 0.05 (two-tailed). The primary analyses focused on evaluating changes in parenting practices, parental competence, and child behavior. Differences in mean change scores between the two groups were used to assess the impact of the intervention relative to standard care. Sensitivity or subgroup analysis was not conducted.