



JOURNAL OF APPLIED SCIENCES RESEARCH

ISSN: 1819-544X EISSN: 1816-157X

JOURNAL home page: <http://www.aensiweb.com/JASR>

2015 April; 11(5): pages 61-67.

Published Online 25 February 2015

Research Article

The Impact of Ellis Rational Emotive Behavior Therapy and Parent Training on Reducing the Symptoms of Illness and Adjustment Problems of Students with Conduct Disorder

¹Fatemeh Abdian Samskandeh, ²Mahbubeh Faramarzi and ³Babolah Bakhshipour Joibari

¹Department of psychology, Sari Branch, Islamic Azad University, Sari, Iran.

²Mahbubeh Faramarzi, Social Determinants of Health Research Center, Babol, University of Medical science, Babol, Iran.

³Department of psychology, Payamnoor University.

Received: 25 November 2014; Revised: 31 December 2014; Accepted: 25 January 2015

© 2015 AENSI PUBLISHER All rights reserved

ABSTRACT

Objective: The present research was an attempt to investigate the effect of Ellis rational emotive behavior therapy on reducing the symptoms of illness and social adjustment problems of students with conduct disorder majoring in the first grade of secondary school. **Methodology:** It was a quasi-experimental study enjoying a pretest-posttest design with one control group. The population under study included all the students studying in the secondary school of Sari district 2 in the academic year 2013-2014. Among which 4 schools were selected through cluster sampling out of which 40 students with conduct disorder were chosen (consisting of 25 junior high school students and 15 students in the first grade of secondary school). Then, they were randomly assigned to control and experimental group containing 20 participants each. The experimental group received Ellis rational emotive behavior therapy treatment once a week for eight 50-minute sessions and family education program was likewise conducted for their parents whereas the control group did not receive any sort of treatment. The instruments employed included the 60-item Adjustment Student Questionnaire and Children Symptom Inventory (CSI-4) (teacher's form). The data were then analyzed using multivariate analysis of covariance. **Findings:** The results revealed the effectiveness of rational emotive behavior therapy in reducing the symptoms of illness ($P = 0.000$) and social adjustment problems ($P = 0.017$) among adolescents with conduct disorder. **Conclusion:** Findings indicated that rational emotive behavior therapy on students and their parents reduces illness symptoms and social adjustment problems in adolescents with conduct disorder. Therefore, the implementation of this efficient method is highly recommended to medical centers.

Keywords: Ellis rational emotive behavior therapy, parent training, social adjustment, symptoms of illness, conduct disorder

INTRODUCTION

Conduct disorder is considered as one of the most prevalent childhood disorders and the most important reason for referral to treatment centers [22]. Children and adolescents with conduct disorder have features that distinct them from other people who have similar disorders. These children often do not seek to hide their anti-social behavior and they do not care about others' feelings, wishes and welfare and it seems that their behaviors do not usually seek a clear goal or do not provide them with any pleasure or privilege [12]. The behavior of such children and adolescents goes beyond that of their peers regarding its wickedness and mischief in a way that it seriously

brings damage to the basic rights of others or to the main law in society [2].

Approximately 6 to 9% of girls and 16 to 6% of boys under the age of 18 suffer from this disorder. Compared to others, conduct disorder is appeared more in children of those patients with anti-social personality disorder and alcohol-dependent parents [15].

Conduct disorder is the most important works of aggression, lack of social adjustment, poor interpersonal relationships, exclusion from peer groups, and lack of education, attention, thinking and problem solving skills among which lack of social adjustment is regarded as one of the most important issues children with conduct disorder are involved

Corresponding Author: Fatemeh Abdian Samskandeh, Department of psychology, Sari Branch, Islamic Azad University, Sari, Iran.

with. It seems that children with conduct disorder misinterpret the mild and impartial interpersonal behavior of others due to their own hostile intentions. Children and adolescents with conduct disorder show bias toward selective attention and recall. Rather than heeding to and recalling positive social cues in interpersonal interactions, they emphasize on hostile social cues [3]. The existence of conduct disorder in childhood provide predictive information for a wide variety of subsequent adjustment problems including antisocial activities, alcohol and drug abuse. Children with these disorders have the weakest prognosis for adjustment in adulthood. Developmental theories suggest that early problems during kindergarten and pre-school are a predictor of increased threat of more serious problems such as drop-out rates, juvenile delinquency and violence. The literature on conduct disorder has proposed three treatment patterns effective in reducing behavioral problems. They are center of interventions, personal, family and social areas [10]. Rational Emotive Behavior therapy as a cognitive theory points out to the processes within the individual as an important determinant of a person's performance. These events are important not because of being provocative but for the impressions and interpretations the individual makes out of them which really matter. In emotional turmoil, excitant events are always processed through irrational beliefs. Rational emotive behavior Therapy was established on the premise that cognition, emotion and behavior are not three distinct human functions rather they are inter-related and regarded as a generalization influencing each other [8]. Studies by Farokhzad [9], Szentagotai, Lupu and Cosman and Adomeh [1] also confirmed the effectiveness of this treatment on adolescents' adjustment. House and Dedds found out that cognitive behavioral therapy for children with conduct disorder could lead to positive changes in people with sociopathic characteristics and those emotional features of callousness and cruelty among parents which were reported before the treatment had changed and the change lasted until 6 months later.

Due to the fact that parental behavior has a significant impact on children's self-regulation skills and changes in parental behavior could lead to behavioral changes of children with conduct disorder, parent management training can be considered as one of the other treatment options [11]. Parent training is another approach that is often used for the sake of study and therapeutic application of this disorder. In pragmatic family therapy, children control skills are directly taught to parents. These therapies aim to focus on the elimination of coercive family interactions with anti-social behavior. Training parents on their child's illness, the child's positive behavior and not using inappropriate punitive methods could be largely significant for both the children and their families [4]. Since students are considered as active and dynamic

powers of society, it seems necessary to make an attempt to eliminate their problems and provide them with facilities and equipments. The prevalence of this disorder among students is of those problems have been influencing families, schools and the society and lack of social adjustment of these children disrupt their social and interpersonal relationships increasing the symptoms. To this end, it is imperative to identify and utilize more effective therapies in order to help alleviate the problems of these children. Given this background and the lack of research literature on this area, the present research seeks to answer the question that if Ellis rational emotive behavior therapy has an effect on the reduction of illness symptoms and social adjustment problems of students with conduct disorders.

MATERIALS AND METHODS

The present research was a quasi-experimental study enjoying a pretest-posttest design with one control group. The population under study included all the students studying in the secondary school of the city Sari, district 2 in the academic year 2013-2014. Among which 4 schools were selected through cluster sampling out of which 40 students with conduct disorder were chosen (consisting of 25 junior high school students and 15 students in the first grad of secondary school). Then, they were randomly assigned to control and experimental group containing 20 participants each. The students in experimental group received Ellis rational emotive behavior therapy treatment and family training was likewise conducted for their parents whereas the control group did not receive any sort of treatment. The instruments adapted in this research include:

Adjustment Student Questionnaire:

This questionnaire is a behavior rating scale measuring the students' compatibility in three aspects of 1) emotional adjustment, 2) social adjustment, and 3) training adjustment. The responses are given on a yes/ no basis. This 60-item questionnaire is comprised of 20 questions in all the three aspects mentioned above. The total score is also related to the person's general adjustment. The final form of this questionnaire was administered on a sample of 1950 people (1200 males and 750 females) and the coefficient of reliability and validity was then examined through three methods of split-half, test-retest and Kuder – Richardson 20. And the coefficients of 0.94, 0.96 and 0.92 for emotional adjustment; 0.93, 0.90 and 0.92 for social adjustment and 0.96, 0.93 and 0.96 for training adjustment and finally 0.95, 0.93 and 0.94 for total adjustment were respectively obtained. The resulting torque coefficient between the scores and ranking of managers were estimated to be 0.51 [16]. Since the social adjustment problems of students was the concern of the present study, 20 items of this

questionnaire which measure the social adjustment of students were just adapted.

Children Symptom Inventory (CSI-4):

This questionnaire is a behavior rating scale. Its first form was developed by Sprafkin and Gadow according to the classification of the 4th edition of diagnostic and statistical manual of mental disorders for the screening of 18 children's behavioral and emotional disorders with the age ranging from 5 to 12 and it was repeatedly revised later on and in the year 1994 some quantitative changes were applied to it based upon the 4th edition of diagnostic and statistical manual of mental disorders [14] and was then published under the name of Children Symptom Inventory, the 4th edition. This form similar to its earlier ones contains two forms for both the parent and the teacher. The parent form includes 97 questions; 15 of which screen conduct disorder. Mohamad Esmail [14] examined the psychometric properties of this questionnaire. In a study carried out by Tavakolizadeh [21], the sensitivity based upon the best cut-off score of 4 was estimated to be 0.89 for conduct disorder and 0.90 for its specificity. Besides, the reliability for both the parents' and teachers' forms was calculated to be 0.90 and 0.93, respectively.

Ellis Rational Emotive Behavior Therapy Treatment:

After determining the control and experimental groups, training sessions were held once a week for eight 50-minute sessions. Group counseling sessions were as follows:

Session 1) Introducing self, other students and their parents to the group, the objectives of the group, number of sessions and the modes of training sessions and suggestions for relationships between students and parents outside the group

Session 2) Reviewing irrational beliefs with regard to the questionnaires of conduct disorder and social adjustment, explaining some of the ambiguities concerning the beliefs, asking for feedbacks of the group on these beliefs, summarizing the views, and giving assignment

Session 3) Reviewing assignments given on the previous session, introducing other irrational beliefs, students expressing ideas about themselves, the frequency of these beliefs, feelings derived as the result of such beliefs and giving assignment

Session 4) Reviewing the assignments, introducing other irrational beliefs, discussing such beliefs through expressing experiences toward this subject and feelings derived as the result of them among the group members, modifying the stated beliefs according to the Ellis's therapeutic theory

Session 5) Reviewing the assignments, introducing other irrational beliefs, asking for feedback on these irrational beliefs and stating some of these beliefs

along with pleasant or unpleasant feelings derived from them, giving assignment

Session 6) Reviewing the assignments, providing feedbacks on them, introducing other irrational beliefs, explaining the importance of time in people's lives and gaining beneficial experiences at that time, prioritizing time in life, giving assignment

Session 7) Reviewing the assignments, introducing other irrational beliefs, group discussion on these beliefs and asking students for help to lead the group to the desired topic and giving assignment

Session 8) Concluding and summarizing the treatment, follow-ups of previous sessions, necessary strategies and performing the post-test

Family Training Treatment:

Training program presented to parents was drawn from the Forehand and McMahon's Parent Education Program [4]. This program was usually performed in a weekly period of 9 sessions which included eight 1-hour sessions of group training with mothers of children with behavioral problems. They were held once a week. A summary of the content covered per session is listed below:

Session 1) Familiarizing mothers with behavioral disorders, symptoms and problems associated with them, its etiology and associated disorders

Session 2) Presenting the principles of positive reinforcement to mothers in order to use them to raise positive behaviors in their child, introducing the features of effective encouragement in children with behavioral disorders including encouraging immediately after the occurrence of the target behavior, and being outstanding and diverse, introducing a variety of verbal, physical, social and rewarding encouragement, selecting the target behavior which proceeds from simpler behaviors with higher frequency moving toward more difficult behaviors or those target behaviors proceeds from simpler behaviors with lower frequency

Session 3) Introducing the principles of how to instruct a child with disorder, providing instruction in a simple, brief and one-by-one language, after the instruction is given, the child has to repeat it so that the mother ensures he has paid attention to it

Session 4) Introducing principles of punishment with positive reinforcement methods, using punishment, types of punishment such as ignorance of target behavior, penalty (removal of rewards and grants), compensating for the negative behavior

Session 5) Introducing exclusion techniques for aggressive behavior

Session 6) Familiarizing parents with child behavior management in outdoor environments and with the principles of immediate encouragement for the child's compliance to the target behavior and immediate punishment for his failure to do so

Session 7) Training mothers on how to manage and control their children's assignments

Session 8) Summarizing what have been learned, discussing the problems mothers faced, and stating possible future problems and preparing parents to encounter with them

Results:

Table 1 describes the students' scores. As it could be seen, the means (along with standard

deviation (SD)) of illness symptoms (teacher report) in control and experimental group were 2.85 ± 7.55 , 1.93 ± 7.15 , 1.48 ± 2.25 and 2.16 ± 7.40 in pre- and post-test stage, respectively. The means (along with standard deviation) of social adjustment in control and experimental group were 2.1 ± 8.15 , 1.14 ± 8.80 , 2.7 ± 5.30 and 1.34 ± 8.30 in pre- and post-test stage, respectively.

Table 1: description of the students' scores.

Questionnaires	Experimental group				Control group			
	pre-test		post-test		pre-test		post-test	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Illness symptoms of teacher's form	7.55	2.82	2.25	1.48	7.15	1.93	7.40	2.16
Students' social adjustment	8.15	2.1	5.30	2.7	8.80	1.4	8.30	1.34

Regarding the research design which was of pre- and post-test (with one control group) type, using multivariate analysis of covariance (MANCOVA) was the best method to analyze the obtained data.

First Hypothesis: Ellis rational emotive therapy and parent training program are significant in reducing the illness symptoms of students with conduct disorder

Table 2: a summary of the statistical analyses of the first hypothesis.

Statistical Indicators Groups & Variables	N	M	SD	The mean difference between the groups	Calculated value of F	Degree of freedom	Calculated sig.	F distribution table	Significance of table	Levene's Test	
										F	Sig.
Variable: illness symptoms of teacher's report				5.15	41.32	1 & 39	0.000	4.09	0.05	0.792	0.704
Experimental group	20	2.25	1.48								
Control group	20	7.40	2.16								

Since the calculated value of F was at a confidence level of 95% ($P = 0.05$) and the degree of freedom was to be 1 and 39 ($F^m = 41.32$) and since it is larger than the F-critical value of the table ($F^b = 4.09$); therefore, the null hypothesis is rejected meaning that the first research hypothesis is confirmed. It could be concluded that the degree of illness symptoms of the teacher's report in experimental group was significantly reduced compared to the control group. It could be stated with 95% of certainty that Ellis rational emotive

therapy on students and training their parents are significant in reducing the illness symptoms of the teachers' report of students with conduct disorder. And since the Levene's Test of this hypothesis came not to be significant meaning that the P-value i.e. the calculated Sig. in the Levene's Test was 0.704 and that it is larger than 0.05, it could be stated that the obtained results have a good reliability.

Second Hypothesis: Ellis rational emotive therapy and parent training program are significant in social adjustment of students with conduct disorder.

Table 3: a summary of the statistical analysis of the second hypothesis.

Statistical Indicators Groups & Variables	N	M	SD	The mean difference between the groups	Calculated value of F	Degree of freedom	Calculated sig.	F distribution table	significance of table	Levene's Test	
										F	Sig.
Variable: social adjustment				3	9.042	1 & 39	0.017	4.09	0.05	0.994	0.520
Experimental group	20	5.30	2.7								
Control group	20	8.30	1.34								

Since the calculated value of F was at a confidence level of 95% ($P = 0.05$) and the degree of freedom was to be 1 and 39 ($F^m = 9.042$) and since it is larger than the F-critical value of the table ($F^b = 4.09$); therefore, the null hypothesis is rejected meaning that the first research hypothesis is confirmed. It could be concluded that the degree of social adjustment in experimental group was significantly increased

compared to the control group. It could be stated with 95% of certainty that Ellis rational emotive therapy on students with conduct disorder is significant in raising their social adjustment (It is worth mentioning that the decrease in the social adjustment scores of the experimental group compared to the control group is an indicator of the increase in students' adjustment level in

experimental group). And since the Levene's Test of this hypothesis came not to be significant meaning that the P-value i.e. the calculated Sig. in the Levene's Test was 0.520 and that it is larger than 0.05, it could be stated that the obtained results have a good reliability.

Discussion:

Generally, the results of analyzing the data demonstrated a significant reduction in the scores of students' illness symptoms of the teacher's report ($F = 41.32$ and $P = 0.000$) compared to the control group. Moreover, the findings demonstrated that Ellis rational emotive therapy and parent training program were significant in increasing the social adjustment of students with conduct disorder ($F = 9.42$ and $P = 0.017$).

Adolescents with conduct disorder cannot communicate properly with their peers; consequently, they are ostracized by them and they experience social isolation. Peer rejection and aggression at early ages, in turn, increases the risk of conduct disorder at older ages. Also, studies declare that with regard to verbal skills, adolescents with conduct disorder are significantly weaker than their normal peers and there exists a correlation between verbal deficits and anti-social behaviors of adolescents with conduct disorder.

As it was mentioned before, of the most important outcomes of conduct disorder is aggression, lack of social adjustment, poor interpersonal relationships, exclusion from peer groups. Children with conduct disorders are deficient in problem solving skills that underpin social interactions. On the other hand, in order to take the necessary steps to achieve a goal, they suffer from some flaws in their thinking ability. Inability to understand the ideas, thoughts and emotions of others, selection tendencies, recall and impulsive anger are other suggested deficits in cognitive domains of these children; as far as it makes them concentrate and recall the hostile social cues in their interpersonal interactions rather than the positive social cues.

Ellis rational emotive therapy assists people to get benefit of more realistic use of expressions rather than negative attitudes, thoughts and emotions and irrational inner-speeches. It helps the individual accept that although the events are upsetting and unpleasant but they are not catastrophic and there are plenty of things they could do to improve the unfavorable conditions. During the therapy sessions, the children with conduct disorder could identify their irrational beliefs and also learned how to deal with such inefficient and irrational beliefs and then attempted to replace this rational thinking pattern with their old thinking pattern. During these sessions, they discussed their social relation problems and their reasons along with identifying the causes of their incompatible social relationships. By improving

and changing them, the illness symptoms of these children and their adjustment problems have changed. On the other hand, when students were placed in the friendly environment of the group therapy where all were in the same shoes, they felt security leading to a significant impact on the reduction of their illness symptoms and increase of social adjustment.

In a study by Farokh zad [9] on the impact of Ellis rational emotive therapy on irrational beliefs of female students of Tehran, it was indicated to be a positive and significant relationship between excessive worries associated with anxiety and helplessness and changes of low emotional adjustment among adolescents. In addition, the results revealed that Ellis rational emotive therapy reduced irrational beliefs in adolescents and increased their social and emotional adjustments all of which are in consistent with the findings of the present research study and that of David *et al* [6] and Adomeh [1]. The present study investigated the impact of parent training program on the reduction of behavior problems of adolescents with conduct disorder.

Parent management training designed based upon the social learning are considered as effective and usable ways to treat children with incompatible behaviors. The findings indicated that this training program led to a significant reduction of behavioral problems such as disobedience, irritability and quick temper loss, fighting and beating others in the experimental group compared with the control group. To this end, it could be concluded that parent training techniques lead to the reduction of behavioral problems in adolescents with conduct disorder. It is parallel to the findings reported by Turner *et al* [23] and Skretol Pixel *et al* [20]. Providing all the explanation above, this could be achieved that the prerequisite of being effective parents and also abilities in establishing a useful and fruitful ties with their children, which is undoubtedly the parents' most important and challenging responsibility throughout life, is to have adequate information on the understanding of the teenagers and recognition of their behaviors, the causes and behavioral problems. Among the many factors playing a role in fostering a healthy personality among the kids and adolescents, Seyf Naraghi and Naderi considered parent-child mutual interactions and how the two treat each other as the most important and fundamental factor of all and in this area they account for empowering families particularly mothers as a major constructive and basic role in preventing or treating behavioral problems. As Winnicott brought into attention that the child and its mother set a domain that any assessment and attempt in the field of therapy must take it into consideration. Therefore, it seems that if the parent-child relationships and parenting style are improved, the behavioral problems could be reduced. In parent training program, they are trained on how

to increase positive interactions with their children and how to reduce conflicts and avoid inappropriate parenting methods. Parent management training comprises positive reinforcement, imposition of non-violent discipline, effective supervision and peaceful resolving of the problems [11]. In training sessions, the parents were provided with proper control and management techniques along with a full statement of effective promotional and punishment practices and their terms and conditions. Besides, during the sessions, the assignments led to the repetition and practical implementation of the techniques taught resulting in the reduction of behavioral problems and increase of adjustment among these children.

In general, the results indicated the effectiveness of these two methods on the reduction of symptoms and increase of adjustment among children with conduct disorder. It is appeared that concurrency of the treatment on children for changing their behavior and also training the parents on how to treat their child could bring more effectiveness.

REFERENCES

1. Adomeh, I.O.C., 2006. Fostering emotional adjustment among Nigerian adolescents with rational emotive behavior therapy. *Educational Research Quarterly*, 29(3): 21- 29.
2. Azad, H., 2001. *Illness psychology of the child*. Tehran: Pajang Publication.
3. Asgharzadeh Salmasi, F., H. Pour Sharifi, 2001. The effect of narrative therapy on the improvement of social adjustment of children with conduct disorder. *Journal of Educational Sciences*, 4(14): 13-24.
4. Balali, R., A.R. Agha Yousefi, 2011. The effectiveness of parent training program on the reduction of children's behavioral problems. *Journal of Applied Psychology*, 5.4(20): 59-73.
5. Dadsetan, P., 2003. *Evolutionary illness psychology: from childhood to adulthood*, Volume II. Tehran: SAMT Publication.
6. David, D., A. Szentagotai, V. Lupu and D. Cosman, 2008. Rational emotive behavior therapy, cognitive therapy, and medication in the treatment of major depressive disorder: a randomized clinical trial, posttreatment outcomes, and sixmonth follow-up. *Journal of Clinical Psychology*, 64(6): 728-746.
7. Ellis, A., 1970. *The essence of Rational psychotherapy: A Comprehensive approach to treatment*. New York: Institute for Rational Living.
8. Ellis, A., K. Mac Lawren, 2005. *Rational emotive behavior therapy: translated by Firouz bakht, M. (2007)*. Tehran: Resa Institute of Cultural Services.
9. Farokh Zad, P., 2012. The effect of Ellis rational emotive therapy on adjustment and decrease of irrational beliefs in female adolescents of Tehran. Tehran. Third National Conference of Counseling.
10. Kalantari, M., 2003. *Parent training directory to modify the behavior of children*. Isfahan University Press.
11. Kimjani, M., 2009. A glance on therapeutic strategies for conduct disorder. *Journal of Exceptional Education*, 95-96: 40-45.
12. Lotfi Kashani, F., S.H. Vaziri, 2013. *Child clinical psychology*, Tehran: Arasbaran Publication.
13. Lowber, R., J. Bork, D.A. Pardini, 2009. A look at the oppositional defiant disorder, conduct disorder and sociopathic characteristics. Translated by Maryam Rezabeigi Davarani. (2013). *Journal of Exceptional Education*, 114: 57-68.
14. Mohamad Esmail, A., 2004. An evaluation of reliability, validity, and determining the cut points of disorders of the child symptom Inventory (CSI-4) among the 6 to 14 year old elementary and junior high school students of Tehran. Tehran: Institute of Exceptional Children.
15. Sadouk, B.J., V.A. Sadouk, 2007. *A summary of Psychiatry of Behavioral Sciences / Clinical Psychiatry. Volume II*. Translated by Farzin Rezaei, 2010. Tehran: Arjmand Publication.
16. Saatchi, M., K. Kamkari, M. Asgarian, 2010. *Psychological tests*. Tehran: Virayesh Publication, 1st Ed.
17. Seyf Naraghi, M., A. Naderi, 2001. *Behavioral disorders and ways to modify and rehabilitate them*. Tehran: Badr Publication.
18. Hashemi, T., A. Eghbali, M. Mahmoud Alilou, 2009. The effect of self-verbal learning on the improvement of social adjustment of children with conduct disorder. *Journal of Clinical Psychology – university of Semnan*, 1.3: 29-36.
19. Miler-Janson, S.H., J.D. Coie, A. Maumary-Gremaud, K. Bierman, 2002. Peer rejection and regression and early starter models of conduct disorder. *Journal of abnormal child psychology*, 30(3): 217-230.
20. Skreitule-Pikse, I., S. Sebre, J. Lubenko, 2010. Child behavior and mother-child emotional availability in response to parent training program: moderators of outcome. <http://dx.doi.org/10.1016/j.sbspro.2010.07.299>
21. Tavakolizadeh, J., 1996. *Epidemiology of attention-deficit and disruptive behavior disorders in elementary school children of Gonabad*, M.A. thesis. Tehran: Iran University of Medical Sciences and Health Services.
22. Toiser Kani Raveri, M., S.J. Younesi, M. Yousefi Louyeh, 2008. The effect of narrative-based social skill training on the reduction of conduct disorder symptoms among children. *Family Research*, 4(13): 63-76.

23. Turner, K.M., M. Richard, M.R. Sander, 2007. Randomised clinical trial of a group parent education programme for Australian indigenous families. *Journal of Paediatrics and Child Health*, 43(6): 429-437.