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OPEN PEER REVIEW

# Effect of Intervention Training on the Mother-Child Relationship in Children with Autism: A Control Trial

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## About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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## 1 Original submission

2 comments · 26 Apr 2021 – 8 May 2021

### Referee 1 Reviewer

MINOR REVISION 26 Apr 2021

Thank you for sending this manuscript to me for review.
This manuscript was interesting and has a new and practical message, but it has a few problems.
In the abstract, the training time was 20 minutes, but in the methods, it was 45 minutes?
Some information was discussed in the discussion (mothers' age, education, …) but was not presented in the results.
-There are no references in the discussion and introduction.

### Associate Editor

MINOR REVISION 8 May 2021

Please consider the reviewers' comments.
Number 1:
Title
Mention in the title of the article that this is a controlled trial.
Introduction
A description of autism is not required in the introduction.
In the introduction, the prevalence of autism in Iran and worldwide should be mentioned.
Please compare and critique similar studies in the introduction.
The phrase "my country" has been repeated many times, which is inappropriate in this literature.
References were not found in this text, and therefore the references were not reviewed.
Method
Describe the method of random allocation and specify its type.
Explain the blinding method, including who was blinded in this study and how.
In addition to the significance mentioned, is it possible to describe the effect size as a result of the study?
Discuss
In the first paragraph of the discussion, the overall result of the study should be mentioned.
The comparison of the result of this study with other studies should be included in the discussion.
The manuscript needs to be revised.
Number 2:
This manuscript was interesting and has a new and practical message but has a few problems.
In the abstract, the training duration was 20 minutes, but in the method, it was 45 minutes?
Some information was discussed in the discussion (mothers' age, education, …) but was not presented in the results.
-There are no references in the discussion and introduction.

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# Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

**Journal Title:** ***Shiraz E-Medical Journal***
***Article Number: 113583***
***Date: 9 th May 2021***

***Dear Reviewer 1***

***Thank you for your insightful comments. To further clarify the concepts of the study, the researchers have added the following statements to the body of the article:***

***Reviewer's first questions***

***Title***

1. Mention in the title of the article control trial

***Control trial was added, (page1, line 1).***

Effect of Facial Emotion Recognition Training on the Mother-Child Relationship in Children with Autism, Control Trial

***Introduction***

2. A description of autism is not required in the introduction

***Description of autism was deleted, (page2, lines 3-4).***

3. In the introduction, the prevalence of Iran and the world should be mentioned.

***The prevalence of Iran and the world was added, (page2, lines8-10).***

the prevalence of this disease has increased 20 times in the last decade, so that one person in every 68 births in the world has autism (4) This ratio in Iran is one child with autism per 150 births .

4. Please compare and critique similar studies in the introduction.

***Similar studies in the introduction were deleted, (page4, lines 7-15).***

Accordingly, in recent years, several studies have assessed the effect of emotional state training on improving the social interactions of children with autism. These studies indicated that organized education can improve the social interactions of these children with the world around them. As Conallen et al. stated in their study, the use of video clips improves the recognition of emotional states in different situations among children with autism and expand their interactions with the world around them. Moreover, teaching appropriate emotional and behavioral states to these children can reduce some of the secondary problems of this disorder in autistic children and help them make progress with the recognition and responding to facial expressions.

5. The phrase "my country" has been repeated many times, which is inappropriate in this literature.

***"Iran" was replaced "my country", (page4, line16 and page11 line1).***

Therefore, the increased autism in children in the word and Iran has highlighted the critical need for attention to the effect of teaching emotional facial expression recognition to autistic children to develop mother-child relationship

Accordingly, the high prevalence of autism in Iran and the world highlights the critical need for meticulous and thoughtful planning to improve the interaction skills of these children.

6. References were not seen in this text and therefore references were not reviewed

***References were added, (page1, line 112-13)***

**Reference:**


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## *Method*

7. Describe the method of random allocation and specify its type

***The method of random allocation was deleted, (page5, lines 15-21).***

After determining the sample size, a total of 53 children with autism were screened for eligibility; 3 autistic children had changes in the dose of their drug, 50 autistic children who gave written informed consent were enrolled and randomly assigned to one of two groups.

For this purpose, the word A was considered for the intervention group and the word B for the control group. 25 blocks of 2 were each written on a piece of paper and placed in a bag. Each time a piece of paper was randomly removed from the bag, the patients were assigned to intervention and control groups accordingly (Fig1).

8. Explain the blinding method. And who was blinded in this study and how

***The blinding method was descripted, (page6lines 16-19).***

In this study, the assistant researcher, who was not aware of the allocation of individuals in the intervention and control groups, collected the demographic information and mother-child relationship questionnaire after completion by mothers in both groups one day before and one day after the intervention.

## *Discuss*

9. In the first paragraph of the discussion, the overall result of the study should be mentioned.

***Result of the study was mentioned in the first paragraph of the discussion, (page9 lines 7-10).***

The present study showed the positive effects of facial emotion recognition training in children with moderate functioning autism. Moreover, it was found that educating children with moderate functioning autism causes behavioral development and improves the interaction skills of these children.

10. The comparison of the result of this study with other studies in the discussion should be mentioned.

***The comparison of the result of this study with other studies in the discussion were added, (page10 lines 1-23).***

In the mentioned study, facial emotion recognition training in children with high-and moderate-functioning autism improved and enhanced their interactions with their mothers. In agreement with the findings of the present study, other studies have reported the constructive and beneficial effects of facial emotion recognition training in children with high-functioning autism. As indicated by HasanPour et al., mothers of children with autism complain about their children's inability to recognize emotional and mental states in others' facial expressions. Conallen et al., disability to recognize emotions in other's facial expressions severely impairs the effective and appropriate interactions among these children. Facial emotion recognition training improves and enhances the interactions of these children with their mothers. A study conducted by Rutherford et al. revealed that young children with autism performed poorly in the recognition of angry faces. This disability could seriously limit their interaction and sometimes makes them subject to anger and harassment. Therefore, facial emotion recognition training can help these children in the recognition of emotional states in others' facial expressions and improves their interactions with the world around them. Along the same lines, Farran et al. reported that children with autism are slow to process emotional states of fear, anger, and sadness, which in turn, affect their effective and constructive interaction with others, family members, especially mothers. Therefore, facial emotion recognition training can improve their social interactions. In a similar vein, in their study, Ghasempour et al. examined the effectiveness of recognizing emotional states in others' facial expressions in the social skills of children with autism. The results of the refereed study demonstrated that facial emotion recognition training enhances the social interaction skills of children with autism.

***Dear Reviewer 2***

*Thank you for send of this manuscript for review by me. This manuscript was interesting and have new and practical message but have few problem.*

***Thank you for your insightful comments. To further clarify the concepts of the study, the researchers have added the following statements to the body of the article:***

***Reviewer's second questions***

1. In abstract time of training was 20 minute but in method 45 minute?

***This sentence was rewritten and corrected, (page 1 lines 12)***

Children in the intervention group were trained in10 sessions of 45 minutes each week for 10 weeks using 40 images related to four situations of happiness, sadness, anger, and fear**.**

2. Some information was discussed in discussion (mother age ,education ,…) but not seen in result.

***These information (mother age ,education ,…) was added, (page 8 lines 14-17)***

The majority of mothers of autistic children in this study had diploma and self- employed 22 (44.0%). Mean age of mothers of autistic children in the intervention group was 36.12±3.71years, and mean age of mothers of autistic children in the control group was 35.57±3.38 years.

3. There is no reference in discussion and introduction.

***Similar studies in the introduction were deleted, (Introduction, page4, lines 7-15 and Discussion, page10, lines1-23)***

***Introduction***

Accordingly, in recent years, several studies have assessed the effect of emotional state training on improving the social interactions of children with autism. These studies indicated that organized education can improve the social interactions of these children with the world around them. As Conallen et al. stated in their study, the use of video clips improves the recognition of emotional states in different situations among children with autism and expand their interactions with the world around them. Moreover, teaching appropriate emotional and behavioral states to these children can reduce some of the secondary problems of this disorder in autistic children and help them make progress with the recognition and responding to facial expressions.

***Discussion***

In the mentioned study, facial emotion recognition training in children with high-and moderate-functioning autism improved and enhanced their interactions with their mothers. In agreement with the findings of the present study, other studies have reported the constructive and beneficial effects of facial emotion recognition training in children with high-functioning autism. As indicated by HasanPour et al., mothers of children with autism complain about their children's inability to recognize emotional and mental states in others' facial expressions. Conallen et al., disability to recognize emotions in other's facial expressions severely impairs the effective and appropriate interactions among these children. Facial emotion recognition training improves and enhances the interactions of these children with their mothers. A study conducted by Rutherford et al. revealed that young children with autism performed poorly in the recognition of angry faces. This disability could seriously limit their interaction and sometimes makes them subject to anger and harassment. Therefore, facial emotion recognition training can help these children in the recognition of emotional states in others' facial expressions and improves their interactions with the world around them. Along the same lines, Farran et al. reported that children with autism are slow to process emotional states of fear, anger, and sadness, which in turn, affect their effective and constructive interaction with others, family members, especially mothers. Therefore, facial emotion recognition training can improve their social interactions. In a similar vein, in their study, Ghasempour et al. examined the effectiveness of recognizing emotional states in others' facial expressions in the social skills of children with autism. The results of the refereed study demonstrated that facial emotion recognition training enhances the social interaction skills of children with autism.

## 2 Revision 1

2 comments · 18 Jun 2021 – 24 Jul 2021

### Referee 2 Reviewer

MINOR REVISION 18 Jun 2021

Thank you for submitting your valuable manuscript to this journal. The research has good data accumulation and an interesting research topic, but it seems to need minor revisions. Your English writing was fine and fluent. Your method was fine too.
The training time in the abstract contradicts that in the text.
In the introduction, it is better to mention the prevalence in Iran.
Describe the method of random allocation.
Explain the blinding method and who was blinded in this study.
References should be revised. No. 14.

### Referee 1 Reviewer

ACCEPT 24 Jul 2021

Accept

3

# Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

**Journal Title:** ***Shiraz E-Medical Journal***
***Article Number: 113583***
***Date: 7 th Aug 2021***

***Dear Reviewer 1***
*Dear authors of the article, the following items are suggested.*

***Thank you for your insightful comments. To further clarify the concepts of the study, the researchers have added the following statements to the body of the article:***

*1. Title "procedure" change to "Intervention"*
***"Procedure" was change to "Intervention" in title, (page1, and line 1).***
Effect of Intervention Training on the Mother-Child Relationship in Children with Autism, Control Trial

*2. Repetitive phrase "the most" line 7 page 7.*
***This error was corrected, (page7 line7).***
Mother-child relationship questionnaire designed by Ross in 1961, this is one of the most important questionnaires for assessing the mother-child relationship.

*3. Duplicate sentence, line 17-20 page 8*
***This error was corrected, (page8 line7).***
There was no statistically significant difference in the distribution of demographic characteristics between the intervention and control groups (P > .05). (Table1).

*4. Dumb sentence, line 15-16 page 9*
***This sentence was rewritten, (page9lines15-16).***
In line with the findings of the current study, Heydari et al. stated autistic children were reluctant to interact with their family members, and even mother.

*5. In ethical considerations, the expression of parental informed consent should be mentioned*
*Parental informed consent was added in ethical considerations,* ***(page8 lines 5-6).***

The written informed consent was obtained from all the parental after providing them with sufficient information on the study.

***Dear Reviewer 2***

Accept
***Thank you***

## *Dear* Reviewer 3

*Thank you for submitting your valuable manuscript to this journal. The research has good data accumulation and interesting research topic, but it seems to needs minor revisions. Your English writing was fine and fluent. Your method was find too.*

***Thank you for send of this manuscript for review by me. This manuscript was interesting and have new and practical message but have few problem.***

1. Training time in the abstract and the text is contradictory.

***This sentence was rewritten and corrected, (page 6 lines 1-3.)***

Children in the intervention group were trained in10 sessions of 45 minutes each week for 10 weeks using 40 images related to four situations of happiness, sadness, anger, and fear**.**

2. Describe the method of random allocation.

***The method of random allocation was added, (page 5 lines 19-23)***

For this purpose, the word A was considered for the intervention group and the word B for the control group. 24 blocks of 4 were each written on a piece of paper and placed in a bag. Each time a piece of paper was come out accidentally from the bag and base on, those patients were assigned to intervention and, the patients were assigned to intervention and control groups accordingly (Fig1).

3. Explain the blinding method. And who was blinded in this study.

***The blinding method was added, (page 6 lines 23-25)***

In this study, the assistant researcher, who was not aware of the allocation of individuals in the intervention and control groups, collected the demographic information and mother-child relationship questionnaire after completion by mothers in both groups one day before and one day after the intervention.

4. References should be revised. No 14

***This reference was corrected,(page 13 lines 34-36)***

Nouhi E, Karbalaizadeh M, Abazari F. The effect of mothers' participation and the family-centered care on mother's anxiety with children suffering from gastrointestinal infections: a randomized clinical trial. J Clin Nurs Midwife. 2015;3(4):47-55.

## 3 Revision 2

1 comment · 9 Oct 2021

### Associate Editor

ACCEPT 9 Oct 2021

According to the reviewer, the manuscript is accepted for publication.