Effectiveness of Spirituality Therapy on Social Stigma and Worry in the Mothers of the Children with Autism

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ABSTRACT

Background: The children’s acute and chronic psychological and physical diseases cause their mothers’ mental health. Therefore, the objective of the present study was to investigate the effect of spirituality therapy on social stigma and worry in the mothers of the children with autism.

Methods: It was a quasi-experimental study with pretest, posttest, control group and two-month follow-up period design. The statistical population included the mothers of the children with autism visiting the autism centers in the city of Isfahan in the last three months of the lunar year 2017. Convenient sampling method and random replacement were used in the present study in a way that 40 mothers were selected from the ones with children with autism and they were randomly replaced into experimental and control groups (20 in each group). The experimental group received eight ninety-minute sessions of spirituality therapy interventions during two months. The applied questionnaires included Social Stigma Questionnaire and Worry Questionnaire. The data of the study were analyzed through repeated measures ANOVA and SPSS 23.

Results: Results showed that spirituality therapy has influenced social stigma (f = 18.81, P < 0.0001) and worry (f = 24.84, P < 0.0001) in the mothers of the children with autism.

Conclusion: According to the findings of the present study, it can be concluded that spirituality therapy using techniques such as knowing values and deep belief in God can decrease social stigma and worry in the mothers of the children with autism.

Keywords: Autistic Disorder, Social Stigma, Spirituality Therapy, Test Anxiety Scale, Mothers
Introduction

Autism is a common developmental disorder diagnosed by abnormal verbal and communicational behaviors. American Psychiatric Association (2013) in the fifth revision of the Diagnostic and Statistical Manual of Mental Disorders stated that the symptoms of this disease appear in the first three years. Autism is a developmental disability that affects the way an individual communicates with people around him/her or starts a relationship with. The symptoms of autism might exacerbate when children with autism react to psychosocial stress factors, like children with other disorders. Children with special needs or chronic diseases experience high levels of stress and get far away from the positive psychological components to the same extent. The damaged psychological condition of the parents of children with autism originates from different sources that might be related to the children, their parents and/or the society. Moreover, mothers of children suffering from disabilities like autism usually suffer from other psychological damages such as social stigma due to the type of interaction with other people. In fact, the social stigma, which is also called a social stain or disgrace, is a psychosocial process that starts by tagging people and leads to social exclusion and isolation. Accordingly, the person is distinguished from his/her environment for psychological or physical reasons, he/she becomes a uni-faceted and insignificant person, and is considered a disgrace or the black sheep of the society. In another definition, the gap between the potential social identity, i.e. how a person should be, and the actual social identity, i.e. how a person actually is, brands the person. Moreover, the mothers of the children with autism experience a growing amount of worry. Worry is a state of being concerned about the future and negative events that triggers negative and severe mind activities. Although other cognitive and physical symptoms such as muscle tension and lack of concentration are also required for diagnosis, the main component is morbid worry about different aspects of life. Although everyone feels worried to some extent, morbid worry is distinguished from normal worry when it becomes chronic, excessive and uncontrollable and drives happiness away from the person. Furthermore, it should be noted that according to the findings of previous studies, being worried is accompanied by an increase in the risk of psychological disorders, social and occupational disorders, and an increase in using healthcare services and physical problems in the society.

Different therapies and educational methods have been used to improve the psychological components in the mothers of the children with autism. One of them is spirituality therapy, whose clinical efficiency has been approved in different studies. Spirituality therapy is a type of psychotherapy that makes use of specific principles and religious-spiritual methods to help patients to reach a metaphysical perception of themselves, the world, and different events and phenomena in order to achieve health and growth through the connection to the metaphysical world. Research has shown that spiritual well-being is related to the physical and psychological well-being among chronic patients and spirituality plays a prominent role in the physical and psychological well-being of the patients, especially when they face acute and chronic diseases. Religious and spiritual experiences can facilitate or prohibit the brain systems to reflect thoughts, self-awareness and regulate emotional states.

Now considering the literature review, it was observed that spirituality therapy have had significant effects on different psychological aspects in different statistical populations. However, it is noteworthy that no studies have been carried out on the effects of spirituality therapy on social stigma and worry in the mothers of children with autism. Accordingly, the main purpose of the present study is to investigate the effect of spirituality therapy on social stigma and worry in the mother of the children with autism.
Methods

It was a quasi-experimental study with pretest, post-test, control group and two-month follow-up period design. Spirituality therapy was the independent variable and social stigma and worry in the mothers of children with autism were the dependent variables. The statistical population of this study included the mothers of the children with autism visiting the autism centers in the city of Isfahan in the last three months of the lunar year 2017. Convenient sampling was used, such that visits were made to the autism centers and the mothers of the children with autism were recalled to participate in the study. A total of 49 mothers announced their willingness to participate in the study. A total number of 40 mothers were selected according to the inclusion criteria and were randomly assigned to the experimental group and control group (20 in the experimental group and 20 in the control group). The inclusion criteria included having an autistic child, announcing consent and readiness to participate in the study, not having any acute physical diseases according to a self-report, not having any acute psychological diseases according to a preliminary clinical interview, and the minimum education level of diploma. In addition, the exclusion criteria included an absence of more than two sessions, lack of cooperation and not doing the assigned practices in the class and unpredicted events. Afterwards, the mothers in the experimental group received spirituality therapy intervention, while the control group received no intervention until the end of the research process.

The following questionnaires were used in this study:

Social Stigma (Perceived Stigma) Scale

In this study, the Perceived Stigma Scale for parents of children with autism was used, which was developed by Mac and Wood (2010). The questionnaire consists of 49 items and it is scaled by Likert Scale into 5 levels of never (0), rarely (1), sometimes (2), often (3), and always (4). The score range is 0-196. The Chronbach’s alpha for each of the subscales (1, 2, and 3) and all the questions was 0.96, 0.87, 0.93, and 0.97, respectively in the study of Rezaei Dehnavi, Noori, Jafari and Faramarzi. In addition, the face validity and content validity of this questionnaire was confirmed by the professors of psychology in University of Isfahan. The Chronbach’s alpha for the Perceived Stigma Scale was 0.94 in the study of Galle Girian. The reliability of this questionnaire in the present study was also calculated by Chronbach’s alpha for the three subscales and the total score to be 0.89, 0.91, 0.89, and 0.92, respectively.

Penn State Worry Questionnaire (PSWQ)

The PSWQ is a self-administered, 16-item, Likert-type scale designed to measure extreme, excessive and uncontrollable worry. Items are rated on a five-point scale. Each question is scaled by score 1 (Not at all typical of me) to 5 (Very typical of me). A total of 11 questions are scored positively and 5 questions (questions 1, 3, 8, 10, and 11) are scored negatively. Possible range of scores is 16-80. In the study of Dehshiri, Golzari, Borjali and Sohrabi, this questionnaire was first translated by two English professors separately into Persian and then the Persian version were translated into English by another professor. After commenting and overcoming the differences in the translation from English into Persian and vice versa, the Persian version of the questionnaire was prepared for application. The reliability of the present study was calculated by Chronbach’s alpha to be 0.90. It is noteworthy that to observe ethics in this study, the mothers’ consent to participate in the intervention program was received and they were made aware of all the stages. In addition, the control group was also assured that they would receive the intervention after the research process is over. Moreover, both groups were assured of confidentiality and that no names are required. Finally, the spirituality therapy intervention was applied on the experimental group according to table 1, while the control group received no intervention.
Research Procedure

After determining the research objectives, the participants who were selected by convenient sampling completed the research questionnaire as the pretest. Then they were randomly replaced in two groups. Then the participants of the experimental group received eight ninety-minute sessions of spirituality therapy intervention. No intervention was applied on the control group meanwhile. At the end of the sessions, the indices evaluated at the pretest were reevaluated. In addition, a two-month follow-up was applied. The intervention program was derived from the spirituality therapy intervention of Taghizadeh and Miralaei. The eight ninety-minute group sessions (each group included 5 participants) were held for two months as follows:

Descriptive and inferential statistics were used in this study for data analysis. Mean and standard deviation in the descriptive level and Shapiro-Wilk test at inferential level were used to investigate the normality of the distribution of the data. Levine test was used to investigate the quality of variances; the t test was used to compare the pretests of the experimental and control groups in terms of the dependent variables, and repeated measures ANOVA was used to test the research hypothesis. The statistical findings were analyzed by SPSS 23.

Results

Demographic findings showed that the research participants were in the age range of 27-42 years old, and the participants in the age range of 32-35 had the highest frequency (33 percent). At the same time, the education level of these people was diploma to masters and the education level of bachelors had the highest frequency (45 percent). Results of the correlation test showed that the demographic variables (age and education level) were not correlated to the dependent variables of the study (social stigma and worry). The descriptive findings of the study will be investigated in the following. The presumptions of the parametric tests were evaluated before presenting the results of repeated measures ANOVA. Accordingly, results of Shapiro-Wilk test indicated that the presumption that the data was normally distributed in terms of social stigma and worry was confirmed in experimental and control groups in pretest, posttest and follow-up stages ($f = 0.86, 0.61, 0.91, p > 0.05$). In addition, the presumption of the homogeneity of variance was evaluated by Levine test and the corresponding results were not significant, which indicated that the variances were homogeneous ($f = 0.97, 0.81 p > 0.05$). Moreover, results of Mauchly’s sphericity test indicated that the sphericity of data is observed for social stigma and worry variables ($p > 0.05$). A repeated measure ANOVA was used to investigate the effectiveness of spirituality therapy on social stigma and worry in mothers of the children with autism. There was a within-subjects factor in this study, i.e. the time of measuring the research variables at three stages of pretest, posttest, and follow-up and there was a between-subject factor, i.e. group membership. As it is presented in table 4, the F value of the effect of interaction between the stages and groupings for the social stigma and worry is 18.81 and 24.84, respectively, which are significant at significance level of 0.0001. These findings show that the experimental group and control group are significantly different in terms of research variables (social stigma and worry) at three stages of pretest, posttest, and follow-up. Results of the comparison of the means for the experimental and control groups are presented for the three stages of pretest, posttest, and follow-up in table 4 in order to investigate the difference of research variables between the two groups. As it can be seen in table 4, the mean difference of social stigma and worry between the experimental group and control group is not significant in the pretest (0.43 and 0.50). Hence, there is no significant difference between the experimental
group and control group at this stage. However, the mean differences of social stigma and worry are significant between the experimental group and control group in the posttest (0.001 and 0.0001) and follow-up (0.0001 and 0.0001). Consequently, the mean difference of the experimental group is significantly higher than that of the control group. That is, spirituality therapy has reduced social stigma and worry in the mothers of the children with autism in posttest and follow-up stages.

Table 1. Summary of teachings on spiritual Therapy

<table>
<thead>
<tr>
<th>Sessions</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Participants meeting each other and speaking about spirituality therapy and its necessity in life, the role of belief and self-acceptance</td>
</tr>
<tr>
<td>Second</td>
<td>Paying attention to spiritual freedom in line with acceptance of God and the mission of the chosen people. Being responsible and planning for today and the future</td>
</tr>
<tr>
<td>Third</td>
<td>Becoming aware of their sins and confessing them to God. Understanding oppression to self or others and trying to live a better life</td>
</tr>
<tr>
<td>Fourth</td>
<td>Leaving matters to God, strengthening the willpower, erasing negative thoughts of mind, understanding the causes of anxiety and how to overcome them and trying to replace them by positive thoughts and behaviors</td>
</tr>
<tr>
<td>Fifth</td>
<td>Understanding the meaning of self-love and loving others, investigating the meaning of suffer</td>
</tr>
<tr>
<td>Sixth</td>
<td>Understanding ethical values, understanding the experimental values</td>
</tr>
<tr>
<td>Seventh</td>
<td>Spiritual belief and love towards it, decision to spiritually develop, mental and spiritual setting for spiritual development, following it and releasing feelings</td>
</tr>
<tr>
<td>Eighth</td>
<td>Empowerment and problem solving, expansion of spiritual experiences, reaching the peak of pleasure, expressing spiritual experiences and beliefs, regular self-assessment supervised by a spiritual person</td>
</tr>
</tbody>
</table>

Table 2. mean and standard deviation of the experimental group and control group in terms of social stigma and worry in the mothers of the children with autism at pretest and posttest stages

<table>
<thead>
<tr>
<th>Variables</th>
<th>Stage</th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Standard Deviation</td>
<td>Mean</td>
</tr>
<tr>
<td>Social Stigma</td>
<td>Pre-test</td>
<td>48.20</td>
<td>5.03</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>40.06</td>
<td>5.30</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>38.20</td>
<td>4.91</td>
</tr>
<tr>
<td>Worry</td>
<td>Pre-test</td>
<td>52.13</td>
<td>7.40</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>41.73</td>
<td>5.49</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>38.40</td>
<td>5.28</td>
</tr>
</tbody>
</table>

Table 3. results of repeated measures ANOVA to investigate the within- and between-subject effects of spirituality therapy on social stigma and worry in mothers of the children with autism

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degree of Freedom</th>
<th>Mean Squares</th>
<th>f-value</th>
<th>p</th>
<th>Effect Size</th>
<th>Power of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Stigma</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stages</td>
<td>374.69</td>
<td>2</td>
<td>187.34</td>
<td>14.53</td>
<td>0.0001</td>
<td>0.36</td>
<td>1</td>
</tr>
<tr>
<td>Grouping</td>
<td>1440</td>
<td>1</td>
<td>1440</td>
<td>17.86</td>
<td>0.0001</td>
<td>0.42</td>
<td>0.99</td>
</tr>
<tr>
<td>Interaction between Stages and Grouping Error</td>
<td>485</td>
<td>2</td>
<td>242.50</td>
<td>18.81</td>
<td>0.0001</td>
<td>0.45</td>
<td>1</td>
</tr>
<tr>
<td>Error</td>
<td>721.64</td>
<td>56</td>
<td>12.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stages</td>
<td>900.69</td>
<td>2</td>
<td>450.34</td>
<td>32.73</td>
<td>0.0001</td>
<td>0.56</td>
<td>1</td>
</tr>
<tr>
<td>Grouping</td>
<td>1786.67</td>
<td>1</td>
<td>1786.67</td>
<td>22.98</td>
<td>0.0001</td>
<td>0.48</td>
<td>1</td>
</tr>
<tr>
<td>Interaction between Stages and Grouping Error</td>
<td>683.62</td>
<td>2</td>
<td>341.81</td>
<td>24.84</td>
<td>0.0001</td>
<td>0.49</td>
<td>1</td>
</tr>
<tr>
<td>Error</td>
<td>770.35</td>
<td>56</td>
<td>13.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Discussion**

The present study was carried out with the aim of investigating the effectiveness of spirituality therapy on social stigma and worry in the mothers of the children with autism. Results of the data analysis showed that spirituality therapy has influenced social stigma and worry in the mothers of the children with autism.

Research results on the effectiveness of spirituality therapy on social stigma in the mothers of the children with autism were consistent with the findings of studies. These researchers have shown that spirituality therapy can reduce traumatic psychological components by improving the components related to the mental health such as psychological well-being. Regarding the present finding, Taghizadeh and Miralaei stated that spirituality and religion are positively related to the ability to bear more mental pressure, optimism, responsibility and the physical and psychological health in general. Hence, spirituality can reduce the perceived social stigma in the mothers of the children with autism through increasing positive features such as patience against difficulties, better power of analysis and problem solving and higher coping power. In fact, it seems that one of the reasons for the effectiveness of spirituality therapy might be that by an increase in the religious orientation, the person gains a kind of self-control that prevents the effectiveness of external conditions on the person. As a result, he/she will face inappropriate environmental conditions less and maintain his/her mental health. This process makes the mothers of the children with autism be less affected by the destructive environmental factors and perceive less social stigma. Moreover, spirituality seems to have protective effects against the mental pressures of the daily life. Therefore, it can increase their mental health and increase the personal abilities and performance in job and life affairs by reducing the destructive behaviors, increasing beneficial physical activities, giving meaning to life and specifying objectives in life. In other words, the belief that there is a God observing everything and helps humans at all times makes the mothers of the children with autism see all the events even the disasters and difficulties as blessings and tests from Him. Therefore, they will be obliged to endure the difficulties that are not logically justifiable by their faith in God to reach perfection. Such a person will see God as her supporter when facing the difficulties and failures in life and she will be sure that she will be awarded for her patience. Consequently, she will understand that other people’s perceptions of her conditions have not been determining and she will take them less into consideration and in consequence, will perceive less social stigma.

The second research finding was the effectiveness of spirituality therapy on the reduction of worry in the mothers of the children with autism, which were consistent with 24-26 studies. These researchers have reported that spirituality therapy can reduce anxiety, depression, and stress and improve hope and happiness in people. Moreover, in line with the results of the present study, investigated the mediating role of spirituality in the relationship between psychological distress and psychological adjustment in patients suffering from cancer. Research results indicated that spirituality can

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**Table 4.** results of the comparison of the means for the experimental and control groups for pretest, posttest, and follow-up stages in stigma and worry

<table>
<thead>
<tr>
<th>Variable</th>
<th>Stage</th>
<th>T Value</th>
<th>Degree of Freedom</th>
<th>Mean Difference</th>
<th>Estimated Standard Error</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social stigma</td>
<td>Pretest</td>
<td>-0.79</td>
<td>28</td>
<td>-1.66</td>
<td>2.09</td>
<td>0.43</td>
</tr>
<tr>
<td></td>
<td>Posttest</td>
<td>-3.86</td>
<td>28</td>
<td>-9.66</td>
<td>2.49</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>-6.73</td>
<td>28</td>
<td>-12.66</td>
<td>1.88</td>
<td>0.0001</td>
</tr>
<tr>
<td>Worry</td>
<td>Pretest</td>
<td>-0.68</td>
<td>28</td>
<td>-1.73</td>
<td>2.55</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>Posttest</td>
<td>-4.62</td>
<td>28</td>
<td>-9.86</td>
<td>2.13</td>
<td>0.0001</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>-8.77</td>
<td>28</td>
<td>-15.13</td>
<td>1.72</td>
<td>0.0001</td>
</tr>
</tbody>
</table>
Effectiveness of Spirituality Therapy on Social Stigma and Worry

Mousavi Najafi & Rasouli Jazi

significantly affect the relationship between psychological distress and psychological adjustment in patients with cancer.

Regarding the effectiveness of spirituality therapy on the reduction of worry in the mothers of the children with autism, it can be stated that spirituality therapy makes the mothers of the children with autism regain their hope for future and this will reduce the psychological burden because hopeful people are more focused when faced with special life conditions such as having children with specific psychological and physiological diseases like autism. They will also act more actively instead of passively. Moreover, they will show less distress and more adjustments. In addition, hopefulness and meaningfulness as a result of spirituality therapy has an important role in adjustment to the conditions of acute diseases and paralysis of children and the stress followed by them because the most important effect of spirituality therapy is the change in attitude and interpretation of life. This change of beliefs affects the cognitive evaluations of the person and logically manages the negative events and the upcoming stress. The mothers of the children with autism feel safer in the shadow of attachment to God and spiritual sources and their power to adjust to mental and physical problems increases, which results in a decrease of worry.

The present study included some limitations such as the limitation of the scope of study to the mothers of the children with autism in the city of Isfahan, not using random sampling methods and presence of some uncontrolled variables such as the mothers’ IQ, the financial status of the families, the number of children and their social status. Therefore, it is suggested that this study will be carried out in other cities, regions and societies with different cultures, other mothers and controlling the aforementioned factors and by the random sampling method to increase the generalizability of the results.

Conclusion
Considering the effectiveness of spirituality therapy on social stigma and worry in the mothers of the children with autism, it is suggested in the applied level that spirituality therapy will be applied as an appropriate and effective method on mothers in the centers for children with autism.

Conflicts of Interest
In this study, was not reported any potential conflicts of interest with the authors.

Acknowledgement
We would like to thank the mothers participating in the project, their families, and Children’s centers with autism.

Authors’ Contribution
Conceptualization, F.M. and F.R.; Methodology, F.M.; Formal Analysis, F.M.; Investigation, F.R.; Data Curation, F.R.; Writing – Review and Editing, F.M.; Supervision, F.M.

All authors read and approved the final manuscript and are responsible about any question related to article.

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