

# Comparison of social, emotional and educational adjustments of adolescent girls in single-child and multiple-child families in Khorramshahr

T. Borzoo<sup>1</sup>, H. Alijani Renani<sup>1\*</sup>, Sh. Rostami<sup>2</sup>, M. H. Haghighizadeh<sup>3</sup>

<sup>1</sup> Nursing & Midwifery School, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran, <sup>2</sup>Assistant Professor of Nursing, Nursing & Midwifery School, Nursing Care Research Center in Chronic Diseases, Ahvaz Jundishapur University of medical Sciences, Ahvaz, Iran, <sup>3</sup>Lecture of Statistics and Epidemiology, Health School, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

**Correspondence:** H. Alijani Renani, Lecture of Pediatric Nursing, Nursing & Midwifery School, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. E\_mail: taraborzoo@yahoo.com

## ABSTRACT

**Background and objective:** Adaptation is one of the most common problems for adolescents, which has a significant impact on the person's mental and social personality. Single-child or multiple-children is one of the important reasons for the social adjustment and social health of individuals. The objective of this study was to compare social, educational and emotional adjustment among single-child and multiple-children female adolescents. **Methodology:** In this descriptive study, 427 female students aged 13-15 years, who were studying in Khorramshahr high schools in the academic year of 2016-2017, were included into study using census method. Data were collected by using Sinha and Singh High School Students Adjustment Questionnaire and demographic information form. Data were analyzed by using SPSS 21 software and independent t-test. **Results:** the adolescents' adjustment in all social ( $7.2 \pm 5.2$ ), emotional ( $6.9 \pm 2.6$ ), educational ( $6.29 \pm 2.9$ ) and general ( $1.7 \pm 5.7$ ) 21) domains was at moderate level. Independent t-test showed no significant difference between single-child and multiple-children adolescents in any of the adjustment domains ( $P > 0.05$ ). **Conclusion:** According to the results, no significant difference was found between single-child and multiple-children adolescents in different dimensions of adjustment, while it is recommended that more studies to be conducted in this regard.

**Keywords:** Adjustment disorders, adolescence, student, single child, sister and brother (sibling)

## Introduction

Among different periods of human life, adolescence is one of the most important and most valuable periods of every person's life. This interstitial stage in the transition from childhood to adulthood is the beginning of one's physical, emotional and social developments, which affect his or her performance in adulthood and result in creation of different needs for this age group [1]. Based on the results, 25% of adolescents' experience threats and changes during this period of life. Early adolescence is associated with puberty changes and response to these changes, middle of adolescence is associated with tendency towards peers, preoccupation music, clothing, appearance,

language and behavior, and late adolescence is associated with tendency to transition to adulthood life and adopting working roles of adults and emerging the adulthood communications [2]. In adolescence, people receive different messages from the outside world, which these messages threaten their security, peace of mind, and adjustment [3]. Adjustment suggests one's ability to adapt to his or her environment and it is defined as adaptation, reconciliation, cooperation, and coping with oneself, environment, and others [4]. Adjustment has various dimensions, while social, emotional and educational dimensions have been more considered in adolescents [5]. The social adjustment means that the needs and desires of the individual are coordinated with the benefits and desires of the group in which they live and direct and severe conflict on the group rules and interests are avoided, as possible [6]. Emotional adjustment means to recognize the positive and negative emotions and feelings in ourselves and to have control over the negative emotions with regard to ourselves and others [7]. Educational adjustment is beyond educational potential. Motivation to learn and work in line with educational needs and general satisfaction with education place is one of the major components of educational adjustment [8]. In recent decades, female adolescents' adjustment has attracted much attention in many countries [9].

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Based on studies conducted in this regard, several factors are involved in adjustment of female adolescents [4, 10]. One's adjustment is affected by the family in which he or she is living as well as the combination of people living together under single roof [11]. The family population and the number of children also indirectly affect the adolescent adjustment through the type of home environment and conditions and attitudes of members [12]. In the last few decades, having a crowded family was a blessing and having multiple children was not unusual. In recent years, given the economic, cultural and social status and given the results of some studies indicating positive characteristics of single-child in some emotional and behavioral domains, some parents prefer to have only one child [13, 14]. One of the most important reasons for tendency to have only one child in industrialized countries is the difficulty of financing the crowded families, the easy control of children's education, marriage at high ages, developments in contraceptive methods and the increased number of women in labor market [15]. The results of recent studies show that adolescents belonging to single-child families have different adjustment compared to multiple-children families, and contradictory results have been reported in this regard [16]. In their studies in the Netherlands, Wang et al concluded that single-child adolescents had more favorable level of adjustment compared to adolescents who have sister and/or brother [12]. Liu et al also showed that single-children had better mental and behavioral adjustment than multiple-children [17]. Chen and East also state that single-children experience less educational failure and fewer internalization and externalization problems during adolescence, compared to last children in the multiple-children families [18]. Chen and Liu showed that single-children had a better educational performance than the last children of multiple-children families with more than two sisters or brothers [19]. In contrast, Mirghaforian reports that social and educational adjustment level in single-child adolescents is lower than that of adolescents belonging to multiple-children families [20]. As adolescents are the main carriers of culture and civilization in any community, and the level of adjustment in today's adolescent females, as mothers of the future, can have a significant impact on their social, job, and family roles in the following years and given the fact that environment and family conditions, the number of children and the relationships between sisters and brothers can be a protective and contributing factor or a risk factor for adolescent adjustment, this study was conducted to determine and compare the level of social, emotional and educational adjustment of adolescents in single-child and multiple-children families in the Khorramshahr city.

## Methodology

This study is a descriptive comparative study. The research population included students studying at the first-grade high schools of Khorramshahr city in the academic year 2016-2017. The inclusion criteria of study included studying in first-grade high school, age range of 13 to 15 years, living with parents

(both mother and father), Iranian citizenship and lack of significant physical and psychological problems. If subjects do not complete the questionnaire fully, they would be excluded from the study. The census method was used to measure the sample size. A total of 2600 students were studying in the first-grade high schools in Khorramshahr city, which parents of 1000 of them announced their consent for participation in the research. Finally, 427 people (55 single-children and 372 with sister and brother) were included in the study. Other students were excluded from the study due to incomplete filling of questionnaire or other criteria such as age or not living with both parents. The data were collected by self-reporting manner and demographic information questionnaire and Sinha and Singh high school students' adjustment questionnaire. The Sinha and Singh High School Student Adjustment Questionnaire (2014) was developed to distinguish high school students (aged 14-18 years) with a good adjustment from students with weak adjustment in three domains of emotional, social, educational and general adjustment. The questionnaire consists of 60 items including 20 questions in each domain and completed by self-assessment manner. The questions are answered in yes/no manner and scoring is so that score zero is assigned to adaptation, otherwise, score 1 is assigned. According to the raw scores obtained from the questionnaire, for each domain and the total score of the five domains, the adjustment of very good, good, moderate, weak and very weak is assigned. The scoring of these five classes is different for each domain. The interpretation of the scores of each dimension is as follows:

1. Emotional adjustment: high score indicates emotional instability and low score indicates emotional stability.
2. Social adjustment: High scores indicate accepting domination and low scores represent aggression.
3. Educational adjustment: High scores indicate poor educational status and low scores indicates interest in education and school by students [21].

The reliability coefficient of this questionnaire was examined by Sinha and Singh and it was reported 95%, 94%, 93%, and 96%, for total, emotional, social, educational adjustment, respectively, using split-half method. It was also reported 93%, 96%, 90%, and 90% for total, emotional, social, educational adjustment, respectively, using test-retest method [22]. Saghi and Rajaei have obtained the reliability coefficient of this test 0.94 using Cronbach's alpha, 0.20 using Richardson's method, 0.93 using test-retest method, and 0.95 split-half method [23]. Folladchang reported the reliability of 0.89% by using test-retest coefficient and 82% by using Richardson coefficient for this questionnaire [24]. For sampling, after obtaining the license of ethics committee of Jundishapur University of Medical Sciences in Ahvaz (with code of IR.AJUMS.REC.1395.786) and coordination with the ministry of education authorities of Khuzestan province and Khorramshahr city, the researcher referred to fourteen female high schools in Khorramshahr city. After justification and explanation of the research objective and getting the verbal consent of the students who met the inclusion criteria, parents' informed consent form was given to the

students to participate in the research and they were asked to submit the form to the parents, and after completing it three days after the previous coordination, the completed consent form was submitted to the researcher. Then, in the same session, the demographic information questionnaire and the Sinha and Singh adjustment questionnaire were provided to students who had written consent of the parents to participate in the project. In accordance with the previous coordination, the researcher referred to schools to collect the submitted questionnaires. In addition, mentioned questionnaires were provided to students who had the consent form of the study. In general, the distribution and collecting the questionnaires in 14 high schools lasted 2 weeks. After collecting questionnaires, data were analyzed using SPSS 21 software. To describe the frequency, mean and standard deviation, descriptive statistics were used, and to compare the dimensions of adjustment dimensions in two single-child and multiple-children groups, independent t-test was used. In all tests,  $P < 0.05$  was considered as a statistically significant difference.

## Results

The mean age of adolescents was  $14.11 \pm 6.17$  years and the mean age of fathers was  $45.4 \pm 6.04$  years and the mean age of mothers was  $40.6 \pm 5.43$  years. In terms of the frequency of number of children in the family, 372 (87.1%) of the samples had multiple-children family and 55 (12.9%) of them had single-child family. Other demographic data of the samples are shown in Table 1. The level of social adjustment of female adolescents was moderate ( $7.2 \pm 5.2$ ) and did not show a significant difference in single-child and multiple-children families ( $P = 0.52$ ). Emotional adjustment was moderate ( $6.9 \pm 2.6$ ) and no significant difference was seen between two groups of adolescents ( $P = 0.66$ ). Educational adjustment level was moderate ( $6.9 \pm 2.5$ ) and no significant difference was seen between the two groups in terms of this dimension of adjustment ( $P = 0.57$ ). The results also showed that general adaptation ( $21.15 \pm 5.7$ ) was moderate and this dimension of adjustment showed no significant difference between two groups of study ( $P = 0.24$ ) (Table 2).

## Discussion

This study is among the descriptive epidemiologic studies conducted to compare the level of social, emotional and educational adjustment in single-child adolescents and multiple-children adolescents. The results showed that the level of adjustment was at moderate level in adolescents of Khorramshahr city in all dimensions of adjustment. In a study conducted by Safavi to examine the correlation between emotional intelligence and adjustment in pre-university female students in Tehran, the level of social adjustment was reported at moderate level in 39.7% of the students and the level of emotional adjustment was reported at good level in 56% of students<sup>[25]</sup>. In a study conducted by Zahed *et al* to examine and compare adjustment and learning and self-regulation in

male adolescent students of Ardabil city, social and emotional adjustment of students was at moderate level ( $6.15 \pm 0.09$  and  $5.77 \pm 2.79$ ) and educational adjustment was at weak level ( $8.20 \pm 2.11$ )<sup>[26]</sup>. As gender is one of the factors affecting the adjustment, the difference between the results of the present study and those of mentioned study can be attributed to difference in the gender of the subjects. Moreover, in a study conducted by Alimahdi to predict the emotional, social and educational adjustment of high school students in Tehran province cities, the adjustment of female students in all three domains of educational ( $10.13 \pm 0.35\%$ ), emotional ( $9.8 \pm 2.26$ ) and social ( $8.61 \pm 2.73$ ) were reported at poor level<sup>[27]</sup>. In the study conducted by Danesh *et al* to examine the effectiveness of group training on problem-solving skills on female adolescents' adjustment in Abyk city, adolescents' adjustment in all three domains of educational ( $9.266 \pm 3.161$ ), social ( $9.433 \pm 1.959$ ) and emotional ( $9.33 \pm 2.065$ ) was very poor<sup>[28]</sup>. Comparing the adjustment in single-child and multiple-children families using the independent t-test did not show any significant difference between these two groups in any of the domains. In this regard, in a study conducted by Daneshnia *et al* to compare social adjustment in single-children adolescents and multiple-children adolescents in Isfahan, no significant difference was seen between the social adjustment of single-child adolescents and multiple-children adolescents<sup>[29]</sup>. In the study conducted by Chen and Liu to compare the scientific achievements and psychological and social adjustment of single-child adolescents and adolescents with siblings, no significant difference was seen between two groups in the educational adjustment<sup>[19]</sup>. In addition, no correlation was found between general adjustment and the population of families in the interventional study conducted by Stean *et al* to provide parent behavioral education to treat the unpleasant behaviors of children in parents of children aged 3 to 16 years in Buenos Aires, Denmark<sup>[30]</sup>. In contrast, the results of the study conducted by Mirghaforian to examine and compare characteristics of personality, self-efficacy, adaptability and optimism among high school female students in single-child and multiple-children families revealed that educational adjustment was significantly higher in multiple-children families compared to that in single-child parents. However, no significant difference was found between single-child and multiple-children families in the domain of emotional adjustment. Additionally, the level of social adjustment of single-child adolescents was lower than that of multiple-children adolescents, but no significant difference was reported in this dimension<sup>[20]</sup>. In studies conducted by Sardarpur and Satorian<sup>[31]</sup> also found that general adjustment in multiple-child adolescents was better than that in single-child adolescents. The difference in the results of various studies can be due to the fact that in addition to the number of family members and children, other factors such as parents' parenting styles and parents' attitudes toward child bringing up can affect adjustment level of adolescence. Difference in students' educational levels can also be involved in differences of findings. One of the limitations of

this study is the low number of single-child subjects compared to adolescents with siblings to participate in the study, which resulted in the inequality of numbers in two groups. Additionally, in the present study, only female students of public schools were examined, so we should treat with caution in generalizing the results to students of other schools such as nonprofit and gifted schools.

## Conclusion

According to the results of this study, there is no significant difference between single-child adolescents and multiple-children adolescents in terms in social, emotional and educational dimensions of adjustment, while further studies are recommended to be conducted in this regard.

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**Table 1: demographic information of subjects**

| classification                  | frequency                  | %   |      |
|---------------------------------|----------------------------|-----|------|
| Number of children in family    | Single-child               | 55  | 12/9 |
|                                 | Multiple-child             | 372 | 87/1 |
|                                 | total                      | 427 | 100  |
| Father's education              | Secondary and lower        | 124 | 29/1 |
|                                 | Secondary                  | 132 | 30/9 |
|                                 | High school                | 135 | 31/6 |
|                                 | Associate and lower        | 36  | 8/4  |
|                                 | Total                      | 427 | 100  |
| Mother's education              | Elementary and lower       | 170 | 39/8 |
|                                 | Secondary                  | 119 | 27/9 |
|                                 | High school                | 99  | 23/2 |
|                                 | Associate and lower        | 39  | 9/1  |
|                                 | Total                      | 427 | 100  |
| Father's job                    | public                     | 73  | 17/1 |
|                                 | Self-employed              | 152 | 35/6 |
|                                 | Employed                   | 49  | 11/5 |
|                                 | Worker                     | 64  | 15   |
|                                 | Unemployed                 | 89  | 20/8 |
| Mother's job                    | Total                      | 427 | 100  |
|                                 | public                     | 17  | 4    |
|                                 | Self-employed              | 13  | 3    |
|                                 | Employed                   | 9   | 20   |
|                                 | worker                     | 1   | 2    |
| Family income per month (Rials) | Housewife                  | 387 | 90/6 |
|                                 | Total                      | 427 | 100  |
|                                 | Less than 10 billion Rials | 235 | 55   |
|                                 | 10-20 billion Rials        | 101 | 23/7 |
|                                 | 20-30 billion Rials        | 58  | 13/6 |
| Family income per month (Rials) | More than 30 billion Rials | 33  | 7/7  |
|                                 | Total                      | 427 | 100  |

**Table 2: comparison of various dimensions of adjustment in female adolescents in single-child and multiple-children adolescents**

| group | variable               | Single-child |     | Multiple-children |      | p-value |
|-------|------------------------|--------------|-----|-------------------|------|---------|
|       |                        | mean         | SD  | mean              | SD   |         |
|       | Social adjustment      | 7/4          | 4   | 7                 | 2/08 | 0/52    |
|       | Emotional adjustment   | 7/3          | 2/4 | 6/9               | 2/6  | 0/66    |
|       | Educational adjustment | 6/6          | 2/5 | 7                 | 2/5  | 0/57    |
|       | General adjustment     | 20/8         | 5/7 | 21/1              | 5/7  | 0/24    |

Independent t-test  
P<0.05= significant difference