**Comparing the thinking and attachment styles in adolescents with and without parents**

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**Abstract:** This study aims to compare the thinking and attachment styles in adolescent with and without parents. The participants of this survey study includes all adolescents aged 12-18 years in Kerman and adolescents aged 12-18 years who have no parents and are kept in centers under the supervision of Kerman Welfare General Department; 100 adolescents without parents and 100 adolescents with parents were respectively selected through census and random method as participants. Data were collected using attachment styles questionnaire and thinking styles questionnaire, and analyzed using descriptive statistics, independent T-Test and chi-square. The results have indicated that there is a significant difference between adolescents with and without parents in attachment styles. Moreover, there is a difference between them in functional, judicial, anarchic, oligarchic, internal, external, liberal and conservative thinking styles at level 0.01, and in anarchic thinking, hierarchical, local and global styles at level 0.05; there is no significant between them in executive thinking style. Dominant styles in adolescence with and without parents are secure and anxious attachment style, respectively. Functional, anarchic, external, judicial, liberal, conservative, local, global, internal, hierarchical, executive, anarchic and oligarchic thinking styles are dominant ones in adolescence with parents; functional, anarchic, global, local, external, executive, judicial, liberal, hierarchical, conservative, internal, anarchic and oligarchic thinking styles are dominant ones in adolescents without parents.

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**Keywords:** thinking styles, attachment styles, adolescence without parents, adolescence with parents

**1. Introduction**

Thinking is the basic characteristic of human being. Humans have been able to overcome complex and variable environment, and continue their lives by their thoughts. People think in their own special styles to do their works. “Style” is not a synonym of “ability”, but it is a way to apply person's ability (Sternberg, 1998). Sternberg presents 13 styles for thinking styles by presenting his Mental Self-government Theory; these styles are classified into the following five dimensions: function, forms, levels, scopes and tendency (Imami Pour, 2001). Another characteristic of human is attachment first presented by John Bowl by to explain the emotional bond between children and their parents. He believed that attachment is an important combination of human experiences; it means the experiences that start from childhood to death. Moreover, he believed that relations related to attachment play an important and a huge role in emotional life of adults in such a way that problems available in interpersonal relationships and experience of various types of anxieties depend on people’s attachment styles (Bawlby 1979). When a child feels a kind of effective and sensitive attachment, he or she feels secure, health and self-confidence in such a way that he. She behaves with happiness. However, when the child feels a kind of risk in establishing a relationship with the other people or even with himself. Herself (for example illness, fear and separation), he or She feels anxiety and fear, and tries to attract his or her parents’ attention. Therefore, attachment style affects the person’s life from childhood to adulthood (Bowlby 1969). Since adolescence is a period in life of every individual and has an important role in human life, it attracts the attention of scientists, psychologists, and writers to this period. This period is called the period of sentimentalism, emotion-oriented, maker crisis, and pressure by different psychologists. All these considerations illustrate the importance of this period of life. All these features lead to inflammation, anxiety and changes in adolescents and unusual effects emerge in him. It is clear that appearance of these manners in adolescent result in special behaviors from parents and teachers (Parrott, 2004)

Among adolescents, some of them have no parents and are kept in boarding centers and welfare organizations. They are the ones who have lost their parents due to death. Studying available backgrounds about teenagers without parents and their comparison with adolescents who have parents have indicated that growth in people’s behavior is affected by the kind of family in which they live. In addition, the results have shown that adolescents living in single-parent families and adopted adolescents are at higher risk for non-adaptive behaviors (Key Pesly, 2000, quoted from Wolf, 1998).

Since no research has been carried out on thinking styles and attachment in adolescents without parents up to now, considering the presented introduction and role of these two dimensions in life, in this research, we are trying to compare the thinking styles and attachments in adolescents with and without parents and to apply its results for presenting and planning some practical solutions.

**Statement of the problem**

Adolescence is one of the important growing stages that faces human emotional and physical crises. Adolescents seek identity in this period. Searching for his or her identity is the important task which is difficult for an adolescent, (Mansour, 2005). Human is separated from infancy period and goes to an area that should pass the sociological and psychological challenges, and calms his turbulent mind in adolescence (Hilgard, 2004). Research findings have shown that adolescent thinking skills are not enough to face modern issues and information age, this issue reflects a strong emphasis on being conservative, paying less attention to modernization, innovation and future orientation in our teaching methods (Hashemian, 2001).

Thinking means preparing a map. Believing means tendency to act; thinking consists of three elements: emotion, imagination and memory. Thought is the ability to apply the inference power, imagination and recognition in order to achieve a result. Thought is a process in which a person tries to identify a problem faced with and to solve it using his own experiences (One Fanzhe, 1995). According to John Dewey, thought means understanding relationships and basic thought means exact investigation of every opinion with regards to results that support it. Thought means directed activities of mind to solve the problem or in other words thinking about that mental activity or behavior (Shariatmadari 1982).

Thinking style can be divided into two styles. The first type of thinking styles (such as legal, judicial, global, hierarchical and liberal) results in creativity and needs to complex information processing. Persons who apply this style of thinking tend to challenge norms and to accept risk. Second type of thinking styles (such as executive, local, monarchic and conservative) needs to simple information processing. Persons who apply this style of thinking tend to keep norms and are authority-oriented.

The four remaining thinking styles (such as anarchic, oligarchic, internal and external) can be placed in complex or simple thinking styles according to the style and specific task (Zhang and Postiglione, 2001). It can be said that thinking styles and cognitive growth are interdependent and the more the cognitive growth is, the more the person tends to use a wider range of thinking styles (Zhang, b 2002); moreover, there is a difference between thinking styles and personality traits according to the Big Five Personality Inventory (Zhang, c 2002).Thinking is one of the three factors (two other factors are intelligence and personality) that affect creativity and innovation (Sternberg, 1998). Several factors such as abilities and incentives are necessary for innovation in any organization, but thinking has an important role in this area (Ford, 1999). Attachment is a deep emotional bond that we have with certain people in our life. When we interact with them, we enjoy; moreover, when we are near to them in times of stress, we feel calm. In the second half of the first year, adolescents are attracted in familiar people who have responded to their needs and choose their parents for special attention.Freud was the first person who stated that the child emotional bond with his or her mother is the basis for all subsequent relationships. According to Bowlby, the parent-child relationship starts with a series of natural signs that attract parent to the child. Gradually, actual emotional bond is formed, and new cognitive and emotional abilities, and history of sincerely and loving care will help it.

According to Mary Ainsworth, attachment is formed in four stages:

1. **Secure attachment:** children consider their parents as a secure base and prefer the absent parent to strangers.
2. **Avoidant attachment:** when parents are present, children ignore them and when children rejoin their parents, the children don't welcome them or do it slowly.
3. **Resistant attachment:** These children want to be near their parents before separation, but they do not search. Moreover, when their parents leave them, they get sad, and after their parents come back, they get angry.
4. **Disorganized and Disoriented attachment:** These children suffer the greatest insecurity and after their parents rejoin, they show some opposite and disoriented behaviors; they may even not look at their parents while their parents are hugging them (Berk 2009).

Persons’ ability to cope and adapt to life events depends on the close cooperation of intellectual and emotional capacities (Saloveyet al, 2000). Although adolescent period is critical, there are some adolescents who have no parents and are kept in centers under the supervision of Welfare Organization. Studying the available backgrounds about adolescents who have no parents and their comparison with those who have parents have indicated that there is a significant difference between adolescent girls with and without parents in the rates of mental distress, depression, social discords, suspicion and paranoia, isolation, strange and odd thoughts, and insecurity (Mosala, 1994).Therefore, since thinking and attachment styles play an important role in making people's lives, and so far no research has been done, especially in adolescent with and without parents, this research aims to study the differences between though and attachment styles in adolescents with and without parents. The results will show the role of parents’ presence in these two personality factors; they can be applied for educational planning.

**Research methodology**:

This study is a survey research and its objectives and hypotheses are as follows:

**The overall objectives:**

Comparing the thinking and attachment styles in adolescence with and without parents

Secondary objectives:

1. Comparing attachment styles in adolescents with and without parents

2. Comparing functional thinking styles in adolescents with and without parents

3. Comparing executive thinking styles in adolescents with and without parents

4. Comparing judicial thinking styles in adolescents with and without parents

5. Comparing anarchic thinking styles in adolescents with and without parents

6. Comparing hierarchical thinking styles in adolescents with and without parents

7. Comparing oligarchic thinking styles in adolescents with and without parents

8. Comparing anarchic thinking styles in adolescents with and without parents

9. Comparing global thinking styles in adolescents with and without parents

10. Comparing local thinking styles in adolescents with and without parents

11. Comparing internal thinking styles in adolescents with and without parents

12. Comparing external thinking styles in adolescents with and without parents

13. Comparing liberal thinking styles in adolescents with and without parents

14. Comparing conservative thinking styles in adolescents with and without parents

Research hypotheses

1. There is a difference between attachment thinking styles in adolescents with and without parents

2. There is a difference between functional thinking styles in adolescents with and without parents

3. There is a difference between executive thinking styles in adolescents with and without parents

4. There is a difference between judicial thinking styles in adolescents with and without parents

5. There is a difference between anarchic thinking styles in adolescents with and without parents

6. There is a difference between hierarchical thinking styles in adolescents with and without parents

7. There is a difference between oligarchic thinking styles in adolescents with and without parents

8. There is a difference between anarchic thinking styles in adolescents with and without parents

9. There is a difference between global thinking styles in adolescents with and without parents

10. There is a difference between local thinking styles in adolescents with and without parents

11. There is a difference between internal thinking styles in adolescents with and without parents

12. There is a difference between external thinking styles in adolescents with and without parents

13. There is a difference between liberal thinking styles in adolescents with and without parents

14. There is a difference between conservative thinking styles in adolescents with and without parents

Based on statistics provided by Kerman Province Welfare General Department, participants includes 100 adolescents without parents aged 12-18 years and kept in centers under supervision of this organization in Kerman. Considering the small size of participants, 100 persons were selected as subjects using census.

In simple random sampling, each member of the society has an equal and independent chance to be a member of the subjects. Independent means selecting one member has no effect on selecting the other members of the society (Delawar, 2006).

Considering the number of adolescents aged 12-18 years in Kerman are 32485, 100 persons were randomly selected as subjects.

**Data Collection Instruments:**

**A) Attachment Style Questionnaire:** reviewed Collins and Reed’s adult attachment questionnaire (1990) was used to measure the attachment questionnaire. The questionnaire is a kind of self-assessment from communication skills and methods used to shape attachment; it consists of 18 articles which are assessed by marking on a five-degree scale from Likert type. Every subscale consists of six articles. Subscales include anxiety, dependency and proximity. (Quoting from Hamidi, 2007). These scales were measured by Cronbach's alpha coefficients 74 % - 28 % - 52 %, respectively. The validity and reliability of this scale have been confirmed by several studies.

**B) Thinking Styles Inventory:** In this study, the long form of Thinking Styles Inventory of Sternberg - Wagner (1992) was used to measure the thinking styles. Inventory consists of 114 questions and 13 sub-tests. Every sub-test consists of 5 questions; each of these questions measures one style of thinking. The reliability coefficient of this inventory ranges between 40% to 80% in previous studies. Concurrent validity of this inventory with short inventory of thinking style is 79% (Imami Pour, 2003).

After determining the subjects, the researcher performed thinking styles questionnaires and adult attachment scale (RASS) in adolescents with and without parents to collect data. Data were analyzed using SPSS 19 and independent T-Test after collecting. Descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics (T-test and chi-square) were used to analyze data.

**Findings:**

The frequency of all attachment styles in adolescents with and without parents are shown in Table 1. According to available data, among 100 adolescents without parents, 35 ones have secure attachment style, 26 ones have anxious attachment style and 39 ones have social attachment style. Among 100 adolescents with parents, 67 ones have secure attachment style, 23 ones have anxious attachment style and 10 ones have avoided and attachment style.

**Table 1: frequency of attachment styles** in **adolescents with and without parents**

|  |  |  |
| --- | --- | --- |
|  | Attachment style | Total |
| Secure | Anxious | Avoidant |
| Without parents | 35 | 26 | 39 | 100 |
| With parents | 67 | 23 | 10 | 100 |
| Sum total | 102 | 49 | 49 | 100 |

Chi-square test was used to respond the hypothesis (1) that there is a difference between adolescent with and without parents in attachment styles. According to data recorded in Table 2, the chi-square value obtained 38.27 that is significant in level0.01 and 99% confidence. Therefore, the difference between frequencies of attachments styles in adolescents with and without parents was significant; there was a relationship between attachment style, and having or not having parents.

**Table 2, chi-square, the difference of attachment styles between adolescent with and without parents**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Value | df | Sig. (2-sided) |
| Pearson Chi-Square | 386.27 | 2 | **000.0** |
| Likelihood Ratio | 734.28 | 2 | **000.0** |
| Linear-by-Linear Association | 034.27 | 1 | **000.0** |
| N of Valid Cases | 200 |  |  |

Considering the significance level of chi-square shown in table 2, the relationship level between attachment style and having or no having parents is shown in table 3. Since the classes of table are more than 2 × 2, Cramer's coefficient is calculated. The relationship value is 37.0 that is significant in level1.0.

**Table 3: the relationship level of attachment style and having or not having parents**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Value | Sig. |
| Nominal by Nominal | Phi | 370.0 | 000.0 |
|  | Cramer's V | 370.0 | 000.0 |
| N of Valid Cases |  | 200 |  |

Descriptive data of different thinking styles in adolescents with and without parents are shown in Table 4.

**Table 4: Descriptive data of different thinking styles in adolescents with and without parents**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | No. | Mean | Standard deviation | Mean od standard error |
| functional | Without parents | 100 | 2200.36 | 10467.7 | 71047.0 |
| With parents | 100 | 4500.39 | 91074.5 | 59107.0 |
| Executive | Without parents | 100 | 4500.35 | 15348.9 | 91535.0 |
| With parents | 100 | 4700.36 | 25085.7 | 72509.0 |
| Judicial | Without parents | 100 | 3600.35 | 68512.7 | 76851.0 |
| With parents | 100 | 1100.39 | 00634.7 | 70063.0 |
| Monarchic | Without parents | 100 | 0600.36 | 56229.7 | 75623.0 |
| With parents | 100 | 2800.39 | 92781.7 | 79278.0 |
| oligarchic | Without parents | 100 | 6600.30 | 36947.6 | 63695.0 |
| With parents | 100 | 6200.33 | 56095.6 | 65609.0 |
| anarchic | Without parents | 100 | 2200.34 | 11320.7 | 71132.0 |
| With parents | 100 | 1900.36 | 35355.7 | 73535.0 |
| hierarchical | Without parents | 100 | 8300.34 | 799932.7 | 77993.0 |
| With parents | 100 | 3100.37 | 03139.6 | 60314.0 |
| Global | Without parents | 100 | 8400.35 | 1233.7 | 71233.0 |
| With parents | 100 | 0600.38 | 91600.7 | 79160.0 |
| Local | Without parents | 100 | 8100.35 | 20927.7 | 72093.0 |
| With parents | 100 | 1700.38 | 36286.6 | 63629.0 |
| Internal | Without parents | 100 | 4300.34 | 91252.6 | 69125 |
| With parents | 100 | 9400.37 | 85613.6 | 68561.0 |
| External | Without parents | 100 | 5800.35 | 95012.8 | 89501.0 |
| With parents | 100 | 2000.39 | 81650.6 | 68165.0 |
| Liberal | Without parents | 100 | 3100.35 | 51523.7 | 75152.0 |
| With parents | 100 | 7900.38 | 73591.7 | 77359.0 |
| Conservative | Without parents | 100 | 5500.34 | 37779.7 | 73778.0 |
| With parents | 100 | 4300.38 | 88763.6 | 68876.0 |

Chi-square test was used to respond the hypotheses 2 to 14. There is a significant difference in level 0.01 between adolescent with and without parents in legal, judicial, monarchic, oligarchic, internal, external, liberal and conservative styles.

There is a significant difference in level 0.05 between adolescent with and without parents in anarchic, hierarchical, global and local styles.

**Discussion and conclusions:**

**First hypothesis**

There is a difference between adolescents with and without parents in attachment styles. The research results have shown that among 100 adolescents girls with parents, 67 ones have secure attachment style, 23 ones have anxious attachment style and 10 ones have avoidant attachment style; among 100 adolescents girls without parents, 35 ones have secure attachment style, 39 ones have anxious attachment style and 26 ones have avoidant attachment style. This difference is in level 0.01 and the relationship between having or not having parents is 0.37. Therefore, the dominant style in adolescents with and without parents is secure attachment style and anxious attachment style, respectively. The results of this research are in line with a research carried out by Ezat et al (2009) entitled “comparing the attachment styles in students affected by behavior disorders and dyslexic, and normal students. The results of the research carried out by Ezat et al (2009) indicated that the normal students have secure attachment style. There is a significant difference between normal students and those affected by dyslexic and behavior disorder in attachment styles.

In order to explain this hypothesis, Bowlby (1969) believes the attachment styles are formed in response to biological and psychological needs of mother and child, and human baby's does something that cause others to take care of him and stay near him/her. This attachment and emotional bond with mother causes the child to seek the comfort obtained by his/her mother’s presence, especially when he/she feels fear and uncertainty. Bowlby and Mary Ainsworth believe that all children feel attached, and strong attachment is the foundation of healthy social and emotional growth in adulthood. In fact, the persons’ attachments have vital role in his/her life. Moreover, Ainsworth(1969)states that secure attachment style facilities the application and qualification in interpersonal relationships.

**Table 5: independent T-test, mean equality of thinking styles in adolescents with and without parents**

|  |  |  |
| --- | --- | --- |
|  | Levine test | T-test, mean equality |
| F | Sig. | t | df | Sig (2-tailed) | Mean Difference | Std Error Difference |
| functional | Supposing of variance equality | 732.7 | 010.0 | 495.3- | 198 | 001.0 | 23000.3- | 92419.0 |
| Supposing of variance inequality | 495.3- | 656.191 | 001.0 | 23000.3- | 92419.0 |
| Executive | Supposing of variance equality | 066.0 | 798.0 | 796.0- | 198 | 427.0 | 93000.0- | 16774.1 |
| Supposing of variance inequality | 796.0- | 143.188 | 427.0 | 93000.0- | 16774.1 |
| Judicial | Supposing of variance equality | 158.0 | 691.0 | 606.3- | 198 | 000.0 | 75000.3- | 03995.1 |
| Supposing of variance inequality | 606.3- | 331.196 | 000.0 | 75000.3- | 03995.1 |
| Monarchic | Supposing of variance equality | 407.0 | 524.0 | 939.2- | 198 | 004.0 | 22000.3- | 09562.1 |
| Supposing of variance inequality | 939.2- | 560.197 | 004.0 | 22000.3- | 09562.1 |
| oligarchic | Supposing of variance equality | 134.0 | 715.0 | 237.3- | 198 | 001.0 | 96000.2- | 91442.0 |
| Supposing of variance inequality | 237.3- | 827.197 | 001.0 | 96000.2- | 91442.0 |
| anarchic | Supposing of variance equality | 212.0 | 646.0 | 926.1- | 198 | 056.0 | 97000.1- | 02309.1 |
| Supposing of variance inequality | 926.1- | 782.197 | 056.0 | 97000.1- | 02309.1 |
| hierarchical | Supposing of variance equality | 467.6 | 012.0 | 515.2- | 198 | 013.0 | 48000.2- | 98594.0 |
| Supposing of variance inequality | 515.2- | 217.186 | 013.0 | 48000.2- | 98594.0 |
| Global | Supposing of variance equality | 006.3 | 085.0 | 085.2- | 198 | 038.0 | 22000.2- | 06492.1 |
| Supposing of variance inequality | 085.2- | 836.195 | 038.0 | 22000.2- | 06492.1 |
| Local | Supposing of variance equality | 214.3 | 075.0 | 454.2- | 198 | 015.0 | 63000.2- | 96156.0 |
| Supposing of variance inequality | 454.2- | 990.194 | 015.0 | 63000.2- | 96156.0 |
| Internal | Supposing of variance equality | 329.0 | 567.0 | 605.3- | 198 | 000.0 | 51000.3- | 12503.1 |
| Supposing of variance inequality | 605.3- | 987.197 | 000.0 | 51000.3- | 12503.1 |
| External | Supposing of variance equality | 232.2 | 134.0 | 218.3- | 198 | 002.0 | 51000.3- | 12503.1 |
| Supposing of variance inequality | 218.3- | 936.184 | 002.0 | 51000.3- | 12503.1 |
| Liberal | Supposing of variance equality | 000.0 | 985.0 | 227.3- | 198 | 001.0 | 48000.3- | 07853.1 |
| Supposing of variance inequality | 227.3- | 834.197 | 001.0 | 48000.3- | 07853.1 |
| Conservative | Supposing of variance equality | 414.0 | 521.0 | 844.3- | 198 | 000.0 | 48000.3- | 00931.1 |
| Supposing of variance inequality | 844.3- | 072.197 | 000.0 | 48000.3- | 00931.1 |

Ainsworth(1991)considered the person's attachment as the security source (secure site) of children to searching their environment; he regarded the mother's sensitivity important for infant and considered its role vital for attachment styles growth of mother – infant. Therefore, these results are in line with the present research; since the normal adolescence have parents, secure attachment is their dominant style. As some researchers have shown, having opportunity to establish a close relationship, continuous and regular nursing quality and suitable family conditions are factors which affect the secure attachment style; adolescents with parents have this condition, but adolescents without parents don’t have the same condition. On the other hand, as Ainsworth(1978) have stated, anxious attachment style is observed in adolescence exposed to clinical problems and adolescents who have experience of an inner shock such as losing their parents, separating from their parents or have been abused. These findings are in line with the present research results because adolescents without parents are those who have no parents from childhood or who have lost their parents due to death or death of one of them and they are now kept in the centers; in this research, their dominant style is anxious one and secure attachment style is allocated to only 35 adolescents out of 100 ones.

**Second hypothesis**

There is a difference between adolescents with and without parents in functional thinking style. This difference is significant in level 0.01 and with 99% confidence. This thinking style is used in adolescents with parents more than ones without parents. It means that these adolescents compared to those without parents prefer to do their works by their own tendencies; in other words, they like to control their lives by themselves. The results of the present research are in line with the results of a research conducted by Susan ImamiPour and Seif (2003) entitled “a developmental study of thinking styles on school students and university students, and their relationships with creativity and academic achievement. It can be concluded that there is a difference between thinking styles of subjects with various ages. Functional style is increased in some ages.

In order to explain this hypothesis, it can be mentioned that persons with functional style like to do their work by their own tendencies. In other words, these people have enacted their own laws. Sternberg (1997) states that these learners prefer unstructured issues because they want to organize the issues by themselves. Some other things that these people like to do are writing creative articles and short stories, composing poetry, designing mathematical issues, scientific projects and decision making about life affairs. Since adolescents are grown in an un systematic environment, it seems that they have some problems within internalizing the rules, and do not follow the functional thinking style.

**Third hypothesis:**

There is a difference between adolescents with and without parents in executive thinking styles. The results have indicated that executive style in adolescents with parents is stronger. This difference is not significant in level 0.01 and with 99% confidence. There is no difference between two groups of adolescents in executive thinking styles, and adolescents without parents observe the rules like those who have parents.

In order to explain this hypothesis, it can be mentioned that persons with executive thinking style are intersected in execution of instructions. Therefore, they like to be guided by the others. They like to do the complex administrative affairs and like strict regulations. Learners with this thinking style compared to those with functional thinking style prefer the issues which are completely organized. According to Sternberg (1997), people with executive thinking style prefer the issues that the other people prepare or organize for them. These people are man of action and generally like to enforce the rules (both their own rules and the other people’s rules). Since the adolescents without parents are grown in an environment without family principle, it seems that they have problems in enforcing rules and instructions, and don’t follow the executive thinking style.

**Fourth hypothesis:**

There is a difference between adolescents with and without parents in judicial thinking styles. The results have indicated that judicial style in adolescents with parents is stronger. This difference is significant in level 0.01 and with 99% confidence. There is a difference between the two groups of adolescents in judicial thinking styles and adolescents with parents use this style more than those without parents. It means that these adolescents prefer to evaluate the affairs and analyze the thoughts compared to those without parents.

In order to explain this hypothesis, it can be mentioned that persons with judicial thinking style are interested in judging affairs and evaluating various issues. These persons prefer the issues through which they can analyze and evaluate the thoughts and affairs (Sternberg 1997). Since the adolescents without parents are grown in an environment without rules, it seems that they have problems in evaluating and analyzing the affairs and problems, and don’t follow the judicial thinking style.

**Fifth hypothesis:**

There is a difference between adolescents with and without parents in monarchic thinking styles. The results have indicated that monarchic style is stronger in adolescents with parents. This difference is significant in level 0.01 and with 99% confidence. There is a difference between the two groups of adolescents in monarchic thinking styles and adolescents with parents use this style more than those without parents. It means that these adolescents prefer to concentrate on one task in each time compared to those without parents. The results of the present research are in line with the results of a research conducted by Susan Imami Pour and Seif (2003) entitled “a developmental study of thinking styles on school students and university students, and their relationships with creativity and academic achievement. It can be concluded that there is a difference between thinking styles of subjects with various ages. Monarchic style is increased in some ages.

In order to explain this hypothesis, it can be mentioned that persons with monarchic thinking style enjoy doing tasks that allows him to concentrate on only one task in each time (Sternberg 1997). Since the adolescents without parents are grown without family, it seems that they have problems in concentrating on one task, and don’t follow the monarchic thinking style.

**Sixth hypothesis:**

There is a difference between adolescents with and without parents in oligarchic thinking styles. The results have indicated that oligarchic style is stronger in adolescents with parents. This difference is significant in level 0.01 and with 99% confidence. There is a difference between the two groups of adolescents in oligarchic thinking style, and adolescents with parents use this style more than those without parents. It means that these adolescents prefer to do several tasks in each time without having any priorities and this thinking style doesn’t observe in adolescents without parents.

In order to explain this hypothesis, it can be mentioned that persons with oligarchic thinking style tend to concentrate on several tasks in each time without having any priorities. (Sternberg 1997).Since the adolescents without parents are grown without family principle, it seems that they don’t have any priorities in allocating time to some tasks, and don’t follow the oligarchic thinking style.

**Seventh hypothesis:**

There is a difference between adolescents with and without parents in anarchic thinking styles. The results have indicated that anarchic style is stronger in adolescents with parents. This difference is significant in level 0.05 and with 95% confidence. There is a difference between the two groups of adolescents in anarchic thinking style. The results of the present research are in line with the results of a research conducted by Susan Imami Pour and Seif (2003) entitled “a developmental study of thinking styles on school students and university students, and their relationships with creativity and academic achievement. It can be concluded that there is a difference between thinking styles of subjects with various ages. Anarchic style is decreased when the age is increased.

In order to explain this hypothesis, it can be mentioned that persons with anarchic style enjoys doing the tasks in which they have authority in terms of “what”, “where”, “who” and “how” to do (Sternberg 1997).Since the adolescents without parents have no authorities to do their works independently, they have no anarchic style and can’t enjoy having authority to do their works.

**Eighth hypothesis:**

There is a difference between adolescents with and without parents in hierarchical thinking styles. The results have indicated that hierarchical style is stronger in adolescents without parents. This difference is significant in level 0.05 and with 95% confidence. There is a difference between the two groups of adolescents in hierarchical thinking style and adolescents with parents use this style more than those without parents. It means that these adolescents prefer to distribute their focuses among several tasks. The results of the present research are in line with the results of a research conducted by Susan Imami Pour and Seif (2003) entitled “a developmental study of thinking styles on school students and university students, and their relationships with creativity and academic achievement. It can be concluded that there is a difference between thinking styles of subjects with various ages. Hierarchical style is increased in some ages.

In order to explain this hypothesis, it can be mentioned that persons with hierarchical style prefer to distribute their focuses among several tasks that are prioritized (Sternberg 1997).Since the adolescents without parents have to obey a specific discipline in centers which they are kept in, they prioritize their concentrations between some tasks and observe the hierarchical thinking style.

**Ninth hypothesis:**

There is a difference between adolescents with and without parents in global thinking styles. The results have indicated that the difference is significant in level 0.05 and with 95% confidence. There is a difference between the two groups of adolescents in global thinking style, and adolescents with parents use this style more than those without parents. It means that these adolescents prefer to focus on general idea of a subject and concentrate on abstract beliefs compared the adolescents without parents; in other words, thinking abstractedly is stronger in adolescents without parents.

In order to explain this hypothesis, it can be mentioned that persons with global style focus on general idea of a subject and concentrate on abstract beliefs (Sternberg 1997).Since the adolescents without parents have problems in concentrating their minds, they don’t focus on abstract beliefs, and don’t follow the global thinking style.

**Tenth hypothesis:**

There is a difference between adolescents with and without parents in local thinking styles. The results have indicated that local style is stronger in adolescents with parents. This difference is significant in level 0.05 and with 95% confidence. There is a difference between the two groups of adolescents in local thinking style and adolescents with parents use this style more than those without parents. It means that the adolescents with parents prefer to focus on the details compared to adolescents without parents. The results of the present research are in line with the results of a research conducted by Susan Imami Pour and Seif (2003) entitled “a developmental study of thinking styles on school students and university students, and their relationships with creativity and academic achievement. It can be concluded that there is a difference between thinking styles of subjects with various ages. Local style is decreased when the age is increased.

In order to explain this hypothesis, it can be mentioned that persons with local style enjoys doing a task that allows them to work on specific dimensions, main subject and concrete details. (Sternberg 1997). Since the adolescents without parents can’t decide independently, they don’t enjoy doing some tasks that they are allowed to work on their concert details and don’t observe the local thinking style.

**Eleventh hypothesis:**

There is a difference between adolescents with and without parents in internal thinking styles. The results have indicated that internal style is stronger in adolescents with parents. This difference is significant in level 0.01and with 91% confidence. There is a difference between the two groups of adolescents in internal thinking style.

In order to explain this hypothesis, it can be mentioned that persons with internal style enjoys doing the tasks that they can do them independently. This thinking style is more in adolescents with parents. It means that these persons enjoy doing the tasks independently. It can be explained that living in the centers increases the dependency to the others and persons don’t have self-confidence to do their works independently (Sternberg 1997).

**Twelfth hypothesis:**

There is a difference between adolescents with and without parents in external thinking styles. The results have indicated that external style is stronger in adolescents with parents. This difference is significant in level 0.01 and with 99% confidence. There is a difference between the two groups of adolescents in external thinking style.

In order to explain this hypothesis, it can be mentioned that persons with external thinking style prefer to do some tasks that make an opportunity for them to interact with the other people. This thinking style is more common adolescents with parents. It means that having an opportunity to interact with the others is more attractive for adolescents with parents compared to adolescent without parents. It can be said that family life will improve interpersonal relationships and trust in people (Strenberg, 1997).

**Thirteenth hypothesis:**

There is a difference between adolescents with and without parents in liberal thinking styles. The results have indicated that liberal style is stronger in adolescents with parents. This difference is significant in level 0.01 and with 99% confidence. There is a difference between the two groups of adolescents in liberal thinking style, and adolescents with parents use this style more than those without parents. It means that novelty and newness of subjects are more attractive for adolescents with parents compared to those without parents.

In order to explain this hypothesis, it can be mentioned that persons with liberal style enjoy doing the tasks that include the novelty and ambiguity (Sternberg, 1997). Since the adolescents without parents don’t have wide external communications, the novelty is not attractive for them, and they don’t follow liberal thinking style.

**Fourteenth hypothesis:**

There is a difference between adolescents with and without parents in conservative thinking styles. The results have indicated that conservative style is stronger in adolescents with parents. This difference is significant in level 0.01 and with 99% confidence. There is a difference between the two groups of adolescents in conservative thinking style. Therefore, observing rules and methods in their work is important for them. In other words, this can be explained that presence in the family results in internalization of observing rules, but living in the centers may results in externalization of observing rules. The results of the present research are in line with the results of a research conducted by Susan Imami Pour and Seif (2003) entitled “a developmental study of thinking styles on school students and university students, and their relationships with creativity and academic achievement. It can be concluded that there is a difference between thinking styles of subjects with various ages. The conservative thinking style is decreased when the age is increased.

In order to explain this hypothesis, it can be mentioned that persons with conservative thinking style tend to observe rules and available methods in order to do the tasks (Sternberg, 1997). Since the adolescents without parents are not grown in a functional environment, they don’t like to observe the rules and do their tasks, and don’t observe the conservative thinking style.

The overall results have shown that legal, monarchic, external, judicial, liberal, conservative, local, global, internal, hierarchical, executive, anarchic and oligarchic thinking styles are dominant ones in adolescents with parents, respectively; functional, monarchic, global, local, external, executive, judicial, liberal, hierarchical, conservative, conservative, internal, anarchic and oligarchic thinking styles are dominant ones in adolescents without parents, respectively.

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