

GENÇ YETİŞKİNLİKTE SOSYAL AĞ HİYERARŞİSİ: SOSYAL ATOM TEORİSİ BAĞLAMINDA MALATYA, TÜRKİYE, ÜNİVERSİTE ÖĞRENCİLERİ ÖRNEKLEMİ ÜZERİNDEN BİR ARAŞTIRMA

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Özet

Kültürel ve psikolojik faktörlerin genç yetişkinlikte bağlanma hiyerarşisi üzerine etkilerini ortaya koymayı amaçlayan bu çalışma, Malatya evreninde 20-24 yaşlar arasındaki 296 öğrenci örnekleminde gerçekleştirilmiştir. “Ben” çekirdeğine en yakın dairede yer alanlar sırasıyla %76,4 oranla anne, %43,6 oranla baba, %36,5 oranla kardeş, %20,9 oranla arkadaşır. Sevgilisi olanlar içinde %31,9’ü sevgiliyi ilk halkaya yerleştirmiştir. Genç kızların kaçınma düzeyleri erkeklere oranla istatistiksel olarak anlamlı derecede daha yüksektir ($\chi^2=21,083$ p=0,000). Çocuklukta ailenin parçalanmış aile olması kaygı düzeyini istatistiksel açıdan anlamlı düzeyde arttırmaktadır ($\chi^2=10,078$ p=0,002). Kaçınma düzeyi yüksek olanlarda, sevgilinin bulunduğu çember değeri ve sosyal atomdaki arkadaş sayısı anlamlı ölçüde daha düşüktür. Kaçınma düzeyinin yüksekliği, birinci çemberdeki kişi sayısının azalması ile sonuçlanmakta, ilk çembere arkadaşın alınmasını ve sevgili edinmeyi önemli derecede azaltmaktadır. Sosyal Atom Hacmi ve bağlanmada kaçınma sevgilisi olmayı etkileyen değişkenlerdir.

Anahtar Sözcükler: *Bağlanma boyutları, Sosyal atom, Genç yetişkin, Yakın ilişkiler, Bağlanma hiyerarşisi*

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THE SOCIAL NETWORK HIERARCHY IN YOUNG ADULTHOOD: A RESEARCH TROUGH UNIVERSITY STUDENTS SAMPLES IN MALATYA, TURKEY WITHIN THE CONTEXT OF SOCIAL ATOM THEORY

Abstract

This study, carried out in Malatya province among 296 student samples aged between 20-24, aims to reveal the effects of psychological and cultural factors on attachment hierarchy in young adulthood. The persons placed closest to the “Me” nucleus are the mother (76.4%), father (43.6%), sibling (36.5%) and friend (20.9%) respectively. Among those with a romantic partner, 31.9% place the romantic partner in the first circle. The avoidance levels of young females are statistically significantly higher than young males ($\chi^2=21.083$ $p=0.000$). A separated family during childhood statistically significantly increase the attachment anxiety level ($\chi^2=10.078$ $p=0.002$). The circle value the romantic partner is placed in and the numbers of friends in the social atom are significantly smaller in subjects with a high avoidance level. Increased attachment avoidance levels result in decreased number of persons in the first circle, thus, reducing significantly both placing friends in the first circle and having a romantic partner. The Social Atom Volume and avoidance of attachment, as our study demonstrate, are factors that influence having a romantic partner.

Key Words: *Attachment dimensions, Social atom, Young adult, Close relationships, Attachment hierarchy*

Introduction

Moreno has tried to explain how interpersonal relationships are structured with the role theory and social atom theory (Moreno 1936, 1946). Moreno feels that the newborn develops a type of relationships with his/her caregiver. This type of relationship that ensures security and confidence creates the identity matrix that will influence his/her lifelong relationships. This created identify matrix defines the distance of the emotional relationships between the “me” and “others” and thus forms the basis of the relationship network where the person sees “*himself/herself as dominant*” and the “*other as dependable*”. The “tele” relation plays a role in the development of the relationship network between “me” and “others” (Moreno & Moreno 1944).

Social Atom Theory

The presence of similarities between Moreno’s social atom theory and

Bowlby's attachment theory indicates that the use of both approaches may be helpful when investigating close relationships. Sociometry studies have made it possible to investigate social interactions by making a map of the Moreno close relationship network. The "social atom" concept, which defines *the smallest social relationship unit* composed of the important persons and objects in the person's emotional world to meet his/her needs of integrity, welfare and security (Moreno, 1947; Remer, 2009), is used to map the emotional relationships of the individual. Some rules are said to be present regarding the development of the "psychological social atom" that creates the identity nucleus of the individual and its interaction with other "social atoms". For example, the psychological atom that is composed of the persons with which we have a "tele" relationship (Moreno, 1953/1993) should contain the smallest number of persons that will enable us to adapt to our environment and be strong (Lundberg, 1948; Hollander, 1974). Evaluation of a "threshold value" that defines the border between the "social nucleus" and the "others" that contains the "tele" relationships, and of the social space created by the important persons in our life and of the social capital we possess enable making significant inroads into understanding interpersonal relationship dynamics.

The Social Atom Scale is one of the methods used to determine the hierarchy of close relationships. Other methods are the Attachment Network Questionnaire (ANQ) developed by Trinke and Bartholomew (1997) to determine the hierarchical structure of adult attachment network, the Network of Relationships Inventory (NRI) developed by Furman and Buhrmester (1985), and the Inclusion of Other in Self (IOS) used by Aron et al. (1992). The schematic scale of the bull's eye technique (Kahn & Antonucci, 1980) resembles the Social Atom Scale. Both are projective tests and therefore allow the evaluation of subjective subconscious effects reflected in-depth in the situation such as close relationships. The central "me" nucleus is surrounded by three circles in the bull's eye technique and seven circles in the Social Atom Scale. A larger number of circles provides more information on the attachment hierarchy. It is possible to perform some calculations with the social atom, which is a model suited for developing formulations both regarding the individual's internal dynamics and the interpersonal dynamics. The relationships can be evaluated both qualitatively and quantitatively by using the persons placed according to the emotional closeness felt and the relative importance of the person.

Attachment Behavioral System

The social atom is structured by the attachment behavior system as it consists of the family members and close friends that the person feels that he/she “belongs to”, shares the identity feeling and feels secure with and receives emotional support from. The “attachment behavioral system” (Mikulincer & Shaver, 2007) is based on two strategies for the feelings of security and confidence. The “primary attachment strategy” is seeking support from a caregiver when one is upset or threatened. The “secondary attachment strategies” are activated when attachment figures are not reliably available and supportive and a sense of security is not attained (Main, 1990). These secondary strategies are hyperactivation or deactivation of the attachment system, called *attachment-related anxiety* and *attachment-related avoidance* by Brennan, Clark and Shaver (1998). While anxious people have an intense need to be close, accepted, supported, and reassured but lack confidence in their romantic partners’ responsiveness, avoidant people are comfortable with closeness and dependency (Hazan & Shaver, 1987: 521-523). Brennan et al (1998) have defined secondary strategies and their scale has revealed that the attachment styles differentiate in two basic dimensions as the anxiety experienced with close relationships and the avoidance of becoming close with others. The *anxiety dimension* defines the attachment anxiety due to the excessive sensitivity towards being refused or abandoned as felt in close relationships while the *avoidance dimension* describes the discomfort felt when one is close to another or others are close and when one is being dependent (Sumer, 2006).

According to Hazan, Hutt, Sturgeon and Bricker (1991), all attachment relationships are characterized by (a) active proximity maintenance, (b) using the other as a safe haven, and (c) utilizing the other as a secure base. Each of these components will be transferred when the new attachment relationships develop. Attachment components transfer sequentially from the parent to the other potential attachment figure at some developmental stage (Hazan et al, 1991; Hazan & Zeifman, 1994). The proximity-seeking component is transferred in early childhood, the safe-haven component in adolescence and young adulthood, and the secure-base component in early adulthood (Hazan & Zeifman, 1994, Keren&Mayseless, 2013). A different attachment hierarchy is structured at each developmental period according to the attachment figures that provide these components. (Pitman&Scharfe, 2010: 202)

Attachment Hierarchy

Personal social networks consist of series of sub-groupings arranged in a hierarchially inclusive sequence (Zhou et al., 2005). An individual ego can be envisaged as sitting in the centre of a series concentric circles of acquaintanceship (Moreno, 1947, Zhou et al., 2005). The number of layer increases, the level of emotional intimacy decrease (Hill and Dunbar, 2003). The seize, composition and sequence of acquaintanceship of this personal network change over time (Plickert et al., 2007).

Attachment Hierarchy in Early Adulthood

Young adulthood is the period when the attachment transfer is the most intense. The person needs to dissolve previous strong attachments, become an individual and create a family by developing new strong attachments. According to Erikson's stages of human development (1950), a young adult stage is generally when the person is between the ages of 20 and 40 and involves the personal need for intimacy and the formation of close heterosexual relationships. In young adulthood, friends and romantic partners gradually replace parents as the preferred source of emotional support and proximity seeking (Freeman & Brown, 2001; Hazan & Zeifman, 1994). Trinke and Bartholomew (1997) reported the young adult has been attached to at least one sibling.

Romantic relationships are embedded in attachment systems that begin with the early caregiving conditions (Baumeister & Leary, 1995, Carlson, Sroufe & Egeland, 2004). Collins and Read (1990) noted that the nature and quality of one's close relationships during adulthood are strongly influenced by affective events that take place during childhood between children and caregivers.

Several aspects of parent-child relationships are especially sensitive regarding cultural values. These are related to the role of the self, parent, child, family, woman etc. (Rothbaum, Pott, Azuma, Miyake & Weisz, 2000). Gender role norms especially influence and shape human behavior from infancy, and these powerful messages from adult caregivers to infants and young children impact the development of interpersonal styles of interaction (Bem, 1981; Chodorow, 1978). Interpersonal behavior forms the daily activity,

and, thus, it seems inevitable that sociocultural context will influence it greatly. In fact, we can safely assume that culture and interpersonal behaviour constitute each other in that it is hard to think of one without referring to the other (Adamopoulos, 2002, Mayseless&Keren,2014). Interpersonal relationships are attached a meaning through identities, roles, symbols, tales, and traditions (Fuhse, 2009:60). Culture mediates the transfer of this meaning between generations via the family.

Attachment is a complex process influenced by many interacting family characteristics (Hazan & Shaver 1987; Collins & Read, 1990). Parent-child interactions have an especially strong effect on striving for separation or closeness, for independence or interdependence, for autonomy or relatedness. Young adults remain tied to their parents and invest little in romantic relationships in the Turkish culture that emphasizes interdependence and interconnectedness. The transition to adulthood is very stressful as a new close attachment takes place before separation from the parents has been completed.

Hypothesis

The attachment hierarchy of young adults in Turkish culture will be different than in the individualist western cultures. The attachment to the family will continue while the place of the friends and romantic partners in the social atom hierarchy will be secondary.

Another hypothesis of the study was that early childhood experiences would influence whether the person would have a romantic partner in young adulthood by affecting the anxiety and avoidance levels.

Method

Subjects

The study universe consisted of students, aged 20-24 attending Inonu University during the second half-year of the 2009-2010 educational year. Surveyors distributed 400 scales by random sampling to Inonu University students who wanted to participate in the study. The surveyor informed the volunteer subjects who wanted to participate in the study on the aim, sig-

nificance of the study and how the scales and surveys would be completed and stated that the data would be kept confidential. A total of 318 forms were returned and 296 that were complete and valid were evaluated. The mean age was 21.45 (SD=1.23). 27% (n=80) were aged 20, 29.1% (n=86) 21, 23.6% (n=70) 22, 12.2% (n=36) 23, and 8.1% (n=24) 24 years old. The female and male percentages were 56.8% (n=168) and 43.2% (n=128) respectively. All were single while 44.9% (n=134) had a romantic partner whom they dated casually.

Measures

Sociodemographic data form (SDF): This form queries some variables related to early childhood predicted to influence the social atom and the individual's attachment responses together with identity information such as age, gender, marital status, educational status and place of residence. The family history section has questions on where the subject grew up, who the caregiver was during the first year, who raised the subject, the time to being weaned from mother's milk, the integrity of the family during childhood, history of any important parental disease during childhood, history of subject's important illness during childhood, separation from the mother and the presence of sexual trauma. The dimensions of interest and control in the PBI-Parental Bonding Instrument developed by Parker, Tupling and Brown (1979) were changed into questions such as where the subject grew up and what kind of discipline was used, using Bowlby's (1979) attachment theory.

The participants had spent their childhood in the city at a rate of 72.3% (n=214). 81.8% (n=242) had been taken care of by their mother in their first year, 92.9% (n=275) were from intact families and 7.1% (n=21) from separated families. The mother had worked in 19.9% (n=59), while 81.8% (n=242) had been breastfed. There was a history of severe illness in the subject during childhood in 6.4% (n=19) and parental illness in 5.7% (n=17). Separation from the mother in childhood was reported by 9.8% (n=29) and sexual trauma by 2% (n=6). The care received during childhood was defined as excessive interest in 13.2% (n=39), lack of interest in 5.7% (n=17) and adequate interest in 81.1% (n=240). The type of discipline during childhood had been excessive control in 14.2% (n=42), adequate control in 71.6% (n=212) and little control in 14.2% (n=42).

Experiences in Close Relationships - Revised (ECR-R): This scale has been developed by Fraley RC., Waller NG. and Brennan KA. (2000) to evaluate the attachment anxiety and avoidance dimensions in close relationships. The Turkish validity and reliability study for the scale has been published by Selcuk E., Gunaydin G., Sumer N. and Uysal A. (2005).

The scale aims to measure the two main dimensions of attachment, the anxiety experienced during close relationships and avoidance of others. Brennan et al. (1998) have found the anxiety dimensions and the identity model, and also the avoidance dimensions and the others model related. The scale was revised by Fraley et al. in 2000.

The scale consists of a total of 36 items and each dimension is measured with 18 items. The subjects of Experiences in Close Relations Scale evaluate how much each item describes them using 7-step scales (1= Does not describe me at all ; 7= Completely describes me). Items numbered 4, 8, 16, 17, 18, 20, 21, 22, 24, 26, 30, 32, 34 and 36 are reverse loaded. The means of odd-numbered items are used to calculate the anxiety score while the same procedure is used on even-numbered items for the avoidance score.

The internal reliability test performed on the study sample for ECR-R revealed a Cronbach alpha coefficient of 0.834. The mean anxiety level of the subjects was 3.72 (SD=0.94), and the mean avoidance level 3.45 (SD=1.03). The mean values were used as the threshold value and those with anxiety or avoidance above were accepted as the large group and those with anxiety or avoidance below as the small group in the statistical evaluation. The percentages for those with low and high avoidance level were 47.6% (n=141) and 52.4% (n=155) respectively. The percentages for those with low and high avoidance levels were 50.3% (n=149) and 49.7% (n=147).

Social Atom Scale (SAS) : This scale has been developed by Dokmen (1993), using Moreno's (1947) social atom theory as the basis to determine the persons who shape the individual's lives. The subject maps his/her close relationships according to the instruction "Place the persons important to you into the circles in the figure according to your feeling of closeness".

The scoring is performed by giving persons put in the outermost circle of the social atom 1 point, those in the innermost circle 7 points and those between

these two circles a corresponding score between 1 and 7. The social atom worth (SAW) is the score obtained by multiplying the number of persons with sequence number of this circle. The Social Atom Volume (SAV) is the score obtained by multiplying the total number of persons placed in the circles (N) with the number of the outermost circles used by the subject (O) and the total number of circles used by the subject (Dokmen, 2005). The rule in calculating the social atom score (SAS) is to obtain the mathematical mean by dividing the total value, found by multiplying the number of persons in a circle with the score value of that circle, by 49. We calculated the social atom score (SAS) for the whole social atom in this study and evaluated the friends and relatives with their actual numbers.

The sample's mean SAW value was 35.43 (SD=15.33), the mean SAV score 155.63 (SD=137.25), and the mean SAS value 0.72 (SD=0.31). Those closest to the "Me" nucleus were the mother (76.4%) (n=226), the father (43.6%) (n=129), a sibling (36.5%) (n=108), and a friend (20.9%) (n=62). Those with a romantic partner put her/him in the first circle at a rate of 31.9%.

Table 1 presents the persons in the seven circles of the social atom and the statistical data for the circle values. As seen in the table, the social atom value of the first circle where the attachment relationship is strong is much higher than the others. The social atom worth (SAW) decreases as the attached persons move away from the center and the number of the circle becomes higher. The subject usually placed their mothers in circle 1 or 2 and their romantic partners in circle 1, 3, 2 in order of frequency.

Table 1. The descriptive statistics for the number of persons in the 7 circles of the social atom and the circle worth

| | Number of Persons in the Circle | | Circle worth | |
|---------------------------------|------------------------------------|-----------|--------------|-----------|
| | Mean | Std. Dev. | Mean | Std. Dev. |
| First Circle Worth | 0.057 | 1.58 | 14.402 | 10.627 |
| Second Circle Worth | 1.537 | 1.110 | 9.223 | 6.661 |
| Third Circle Worth | 1.168 | 0.987 | 5.844 | 4.936 |
| Fourth Circle Worth | 0.820 | 0.834 | 3.283 | 3.338 |
| Fifth Circle Worth | 0.557 | 0.92 | 1.672 | 2.778 |
| Sixth Circle Worth | 0.422 | 0.674 | 0.844 | 1.349 |
| Seventh Circle Worth | 0.158 | 0.569 | 0.158 | 0.569 |
| Mother's Circle Worth | 1.420 | 0.999 | 6.565 | 0.994 |
| Romantic Partner's Circle Worth | 2.387 | 1.632 | 5.388 | 1.531 |

Statistical Procedure

Analysis of the data obtained through data collection tools during the study was with the “SPSS 16 for Windows” package software. Descriptive statistics, the independent sample t-test (for pair comparisons regarding continuous variables), the chi-square test (for categorical variables) and Pearson’s correlation test (to evaluate the relationships between dependent and independent variables) were used for data analysis. The ANOVA one-way analysis was used to determine whether the subjects showed a significant differentiation for the social atom values and attachment responses for some sociodemographic data while the Tukey HSD test was used to determine which group made up the difference when a difference was found. The presence of a romantic partner was taken as the qualitative variable and stepwise binary logistic regression analysis was used to evaluate the influencing variables.

Results

The avoidance level was statistically significantly higher in young females than males ($\chi^2=21.083$ $p=0.000$). A separated family during childhood statistically significantly increased the anxiety level ($\chi^2=10.078$ $p=0.002$).

The presence of an illness in the family made a significant difference regarding the social atom volume ($\chi^2=6.101$ $p=0.014$). Subjects with a history of excessive control ($\chi^2=7.222$ $p=0.027$) or lack of attentive care ($\chi^2=7.358$ $p=0.025$) during childhood had higher avoidance levels. Subjects who had lived their childhood in a rural setting had higher avoidance levels ($\chi^2=7.008$ $p=0.030$). Subjects exposed to less control during childhood had lower levels of putting their siblings in the first circle ($\chi^2=10.502$, $p=0.005$).

We analyzed the association of higher or lower than normal anxiety and avoidance levels with the number of persons in the social atom and worth of each circle with the independent paired group analysis, the t-test. We found a difference between the groups according to anxiety levels for the first circle worth's and number of persons ($p=0.022$ $t= - 2.309$) and the number of the outermost circle used ($p=0.017$ $t=2.411$). We also found a significant relationship between avoidance levels and the number of friends in the circle ($p=0.009$ $t=2.649$).

Analysis of avoidance levels by the number of persons in the social atom and the worth of circle using the t-test showed a statistically significant relationship between the value of the avoidance levels and the worth of the circle containing the romantic partner ($p=0.021$ $t= -2.333$) and the number of friends in the social atom ($p= 0.009$ $t= -2.649$). Subjects with a high avoidance level had a significantly lower number of friends in the social atom and a lower worth of the circle containing the romantic partner. We found no significant difference for the numbers and worth of the other circles in the avoidance groups.

The ANOVA One way and post-hoc Tukey analyses were used to analyze the effects of early childhood variables on the avoidance and anxiety levels. We found a statistically significant relationship between the residence of the subject and the avoidance level ($F=3.096$ $p=0.047$). The groups that created this difference were found to be rural and urban settings (mean diff= -0.5768 $p=0.047$). There was a significant difference in anxiety levels by the disciplinary method used ($F=6.167$ $p=0.002$). This difference was found to be derived from the excessive control-adequate control (mean diff= 0.377 $p=0.044$) and the little control-adequate control groups (mean diff= 0.457 $p=0.010$).

Table 2 presents the results of the Pearson correlation analysis where the relationship between the variables of anxiety, avoidance, social atom volume (SAV), social atom worth (SAW) and close relationship social atom worth (CloRelSAW) were evaluated. There was a significant and positive association between the anxiety and avoidance levels of the individuals. We found a negative association between the anxiety score and the close relationship social atom worth.

Table 2. Evaluation of relationship levels with Pearson’s correlation analysis

| Pearson Corr. | Anxiety | SAW | SAV | SAS | CloRelSAW |
|----------------------|---------------------------|-------------------|---------------------------|---------------------------|---------------------------|
| AVOIDANCE | 0.196** <i>p=0.001</i> | -0.042 p=.0474 | -0.065 p=0.27 | -0.040 p=0.474 | -0.010 p=0.859 |
| ANXIETY | | -0.099 p=.090 | 0.053 p=0.364 | -0.099 p=.090 | -0.123* <i>p=0.035</i> |
| SAW | | | 0.508** <i>p=0.000</i> | 1.000** <i>p=0.000</i> | 0.672** <i>p=0.000</i> |
| SAV | | | | 0.508** <i>p=0.000</i> | -0.007 p=0.901 |
| SAS | | | | | 0.672** <i>p=0.000</i> |

**.*p*= 0.01 *.*p*= 0.05

Subjects with a high avoidance level were found to include fewer friends in the first circle ($\chi^2=11.346$ *p*=0.001). The level of anxiety was statistically significantly higher in subjects who did not include the father in the first circle ($\chi^2= 5.024$ *p*=0.025). The social atom volume ($\chi^2=5.690$ *p*=0.017) and social atom score ($\chi^2= 51.642$ *p*=0.000) were significantly lower in subjects who did not include the father in the first circle. The SAS value was significantly lower in subjects who did not include the mother in the first circle ($\chi^2=8.187$ *p*=0.004). The SAS was statistically significantly lower in subjects who did not include friends ($\chi^2=4.103$ *p*=0.043) or the romantic partner in the first circle ($\chi^2=11.762$ *p*=0001).

The lack of the siblings in the first circle led to a significant decrease in SAS ($\chi^2=35,465$ $p=0.000$). The rate of subjects with a high SAS was significantly increased in subjects whose parents had suffered from an illness during the subject's childhood ($\chi^2=5.075$ $p=0.024$). The rate of putting the mother in the first circle was significantly lower in those who had not been raised by the mother compared to those who had been raised by the mother ($\chi^2=6.318$ $p=0.012$). The rate of being subject to excessive control was statistically significantly higher in subjects who had been cared for by someone other than the mother ($\chi^2=8.561$ $p=0.014$).

Analysis of the anxiety and avoidance levels by gender with the independent t-test showed statistically significantly higher avoidance levels in females ($p=0.000$ $t=6.070$). Table 3 presents the relationship between anxiety levels and social atom variables. The results concerning avoidance were not significant.

Table 3. Evaluation of social atom variables by anxiety level

| Anxiety Level | | N | Mean | Std. Dev. | t | p |
|---------------|------|-----|--------|-----------|-------|------|
| SAW | Low | 141 | 37.30 | 15.29 | 2.01 | 0.04 |
| | High | 155 | 33.72 | 15.20 | | |
| SAV | Low | 141 | 150.32 | 145.43 | -0.63 | 0.53 |
| | High | 155 | 160.46 | 129.64 | | |
| CLORELSAW | Low | 141 | 15.89 | 10.87 | 2.31 | 0.02 |
| | High | 155 | 13.05 | 10.25 | | |
| SAS | Low | 141 | 0.76 | 0.31 | 2.01 | 0.04 |
| | High | 155 | 0.69 | 0.31 | | |

The t-test was used to evaluate the relationship between parental illness and the number of persons in the circle (Table 4).

Table 4. Evaluation of number of persons in the circle by parental illness history

| Parental illness | | N | Mean | Std. Dev. | t | p |
|-----------------------------------|-----|-----|------|-----------|------|-------------|
| number of persons in the circle | Yes | 17 | 8.82 | 3.38 | 3.20 | 0.00 |
| | No | 279 | 6.52 | 2.85 | | |
| circle containing mother | Yes | 17 | 1.53 | 1.37 | 0.46 | 0.64 |
| | No | 278 | 1.41 | 0.98 | | |
| number of friends in the circle | Yes | 17 | 3.29 | 2.42 | 2.73 | 0.01 |
| | No | 277 | 2.08 | 1.73 | | |
| number of circles used | Yes | 17 | 5.06 | 1.56 | 2.48 | 0.01 |
| | No | 279 | 4.14 | 1.47 | | |
| number of relatives in the circle | Yes | 17 | 4.88 | 2.18 | 1.22 | 0.22 |
| | No | 279 | 4.27 | 2.02 | | |

Romantic Partner-Related Variables

The percentage of females without romantic partners was higher than those with a romantic partner ($\chi^2=6.118$ $p=0.013$). Evaluation of the relationship between the anxiety and avoidance levels and whether there was a romantic partner showed a statistically significant difference ($\chi^2 = 6.670$ $p=0.010$) for the avoidance level. Those with a higher avoidance level had a lower percentage of having a romantic partner. Subjects with a low avoidance level put their romantic partners in circles close to the center more often. Subject where the father was not included in the first circle had a higher rate of not having romantic partners ($\chi^2=4.535$ $p=0.033$). The SAV levels were higher in subjects without romantic partners ($\chi^2=14.873$ $p=0.000$). Evaluating the avoidance level by the number of persons in the social atom and the circle worth's using the t-test showed a statistically significant relationship between avoidance levels and the worth of the circle the romantic partner was placed in ($p=0.021$ $t= -2.333$). The worth of the circle the romantic partner was placed in was significantly lower in subjects with a high avoidance level.

The number of circles used and the total number of friends in the social atom and the total number of persons were statistically significantly higher in those with a partner (Table 5).

Table 5. Evaluation of circle worth by having a romantic partner

| Romantic partner status | | N | Mean | Std. Dev. | t | p |
|-----------------------------------|-----|----------|-------------|------------------|----------|-------------|
| number of persons in the circles | yes | 133 | 7.22 | 2.94 | 3.03 | 0.00 |
| | no | 163 | 6.20 | 2.84 | | |
| number of circles used | yes | 133 | 4.49 | 1.51 | 3.10 | 0.00 |
| | no | 163 | 3.96 | 1.43 | | |
| number of relatives in the circle | yes | 133 | 4.55 | 2.14 | 1.91 | 0.06 |
| | no | 163 | 4.10 | 1.92 | | |
| number of friends in the circle | yes | 133 | 2.43 | 1.63 | 2.41 | 0.02 |
| | no | 161 | 1.93 | 1.90 | | |
| circle containing mother | yes | 132 | 1.49 | 1.23 | 1.12 | 0.27 |
| | no | 163 | 1.36 | 0.76 | | |

We found a statistically significant relationship between all circle variables and the number of the circle containing the romantic partner, the number of persons in the third circle and the total number of persons in the social atom. The rate of friends not being included in the first circle was high when the romantic partner was not in the first circle ($\chi^2=28.365$ $p=0.000$).

One of the main investigated subjects in the study was the variables affecting whether a subject had a romantic partner. We first defined the relationships between the variables by Pearson's correlation analysis to determine confounding factors and then used the stepwise binary logistic regression analysis. The interactions of factors related to each other were also investigated by including them in the model. The presence of a romantic partner was accepted as the qualitative variable while the influencing demographic variables, SAV large group, SAS group, Anxiety group and the Avoidance group were the independent variables. The related variables found with the analysis have been summarized in the regression table (Table 6).

Table 6. Evaluation of the relationship between qualitative variables

| Spearman's rho | Anxiety Large | SAV Large | Avoidance Large | SAS Large |
|----------------|-------------------|------------------|----------------------------------|-----------------------------------|
| Gender | -0.041 p=0.479 | 0.074 p=0.202 | -0.267** p=.000 | 0.074 p=0.206 |
| Anxiety Size | | 0.069 p=0.233 | 0.190** p=0.001 | -0.156** p=0.007 |
| SAV Size | | | -0.022 p=0.711 | 0.124* p=0.033 |
| Avoidance Size | | | | -0.043 p=0.460 |

**p< 0.01

* p<0.05

We found a significant negative relationship between the gender variable and the avoidance size. The avoidance size was significantly higher in females than males. The avoidance level was also significantly high in individuals with high anxiety levels. Subjects with a high anxiety level were found to have a significantly lower SAS level. Subjects with a high SAV level had a significantly lower SAS level.

Binary logistic regression analysis was used to evaluate the variables thought to influence whether a romantic partner was present or not (Table 7). The probability worth of the model derived from the binary logistic regression was (log likelihood) -200.300 and the Cox & Snell R² was 0.070 (p=0.000).


Table 7. Evaluation by regression analysis of the variables influencing whether romantic partner was present or not

| Steps | | B | S.E. | Wald | Sig. | Exp (B) |
|---------------------|---|--------------|--------------|---------------|--------------|--------------|
| Step 1 ^a | SAV Level | 0.924 | .242 | 14.591 | 0.000 | 2.520 |
| | Constant | -0.325 | 0.182 | 3.197 | 0.074 | 0.722 |
| Step 2 ^b | Avoidance Level (Reference category=Large) | 0.620 | .243 | 6.517 | .011 | 1.859 |
| | SAV Level (Reference category=Small) | 0.932 | 0.245 | 14.481 | 0.000 | 2.540 |
| | Constant | 0.633 | 0.222 | 8.155 | 0.004 | 0.531 |

The analysis revealed that the variables influencing the presence of a partner were SAV ($p=0.00$) and Avoidance level ($p=0.011$). Logistic regression showed that individuals with a high avoidance level had a 1.9-times lower chance of having a romantic partner while those with a low SAV level had a 2.5-times lower chance.

Once the binary logistic regression analysis results were obtained, we then performed multinomial logistic regression analysis to evaluate the relationship between the circle the romantic partner was included in and anxiety, avoidance and SAV size. The significance evaluation of the model derived from multinomial logistic regression analysis revealed the following results: McFadden=0.072 and Cox & Snell $R^2=0.228$ ($p=0.013$). Graph 2.1 shows the variables that were found to be significant at each level with multinomial regression depending on where the romantic partner was included within circles 1 to 6.

Graph 1. Evaluation of the variables that have a significant relationship with the circle the romantic partner is located in on multinomial logistic regression



| | | | | | |
|-----|-----------|--------------|---------------|---------------------|-----------|
| 6.C | SAV | (high/ low) | $\beta=2,343$ | $\exp(\beta)=10,41$ | $p=0,028$ |
| 5.C | Anxiety | (high/ low) | $\beta=2,840$ | $\exp(\beta)=3,636$ | $p=0,034$ |
| | SAV | (high/ low) | $\beta=3,295$ | $\exp(\beta)=17,24$ | $p=0,017$ |
| 4.C | SAV | (high/ low) | $\beta=3,199$ | $\exp(\beta)=22,72$ | $p=0,002$ |
| 3.C | Anxiety | (high/ low) | $\beta=1,635$ | $\exp(\beta)=5,128$ | $p=0,048$ |
| | SAV | (high/ low) | $\beta=1,797$ | $\exp(\beta)=6,020$ | $p=0,040$ |
| 2.C | Anxiety | (high/ low) | $\beta=1,800$ | $\exp(\beta)=6,060$ | $p=0,033$ |
| 1.C | Avoidance | (low / high) | $\beta=1,627$ | $\exp(\beta)=5,088$ | $p=0,030$ |
| | Anxiety | (high/ low) | $\beta=1,723$ | $\exp(\beta)=5,128$ | $p=0,034$ |

Those with low avoidance levels put their romantic partners in the first circle at 5 times the rate of others. Those with low anxiety levels again put their romantic partners in the first circle at 5 times the rate of others.

Discussion

The first hypothesis in this study is that the attachment hierarchy of young

adults in Turkish culture differs from those in the individualist western cultures. The results demonstrate that, in the Turkish culture, attachment to family preserves its primary position while placing of the friends and romantic partners in the social atom hierarchy remain secondary.

The developmental task for the young adult is to detach from the parents and to establish mutually satisfying close relationships (Erikson, 1968). These tasks are fulfilled around adult roles of cultural expectations (Rothbaum et al. 2000; Lapsley & Edgerton 2002). The cultural environment therefore plays an important role in structuring the close relationships of the individual.

The avoidance levels of the female subjects participating in the study were low and they also had low levels of having a romantic partner, similar to the results of the study by Çelik (2004) on university students. This may be associated with the child-rearing practices of families in our country and the notion of “chastity” for women in our society with the limits it imposes, as stated by Kagıtcıbası (1982). The higher levels in patients who grew up in a rural setting compared to those growing up in an urban setting may be explained with the different socialization processes. According to Schmitt (2008), individuals socially exposed to high levels of stress, tend to develop dismissing attachment styles. The harsh physical environments (Belsky, Steinberg & Draper, 1991) and high fertility trends (Chisholm, 1996) may have acted to increase attachment avoidance for those growing up in a rural setting in our study. Men show significantly higher levels of dismissing attachment than women in Western cultures (Bartholomew & Horowitz, 1991; Brennan et al 1998; Schmitt, 2008) and women are reported to have higher levels of attachment anxiety than men (Downing, 2008).

As also stated by Hinde (1976), the nature of the relationship between two persons is determined by their past interactions. Negative experiences during early childhood may therefore end in increased anxiety and avoidance regarding attachment processes for the individual. Anxiety and avoidance are the most effective variables in determining the distance in interpersonal relationships and it is therefore unavoidable that early experiences will shape the social atom of the individual. The results of our study showed that the anxiety level increased with a separated family during childhood, being raised by persons other than the mother during childhood, lack of attentive care, little use of control, the presence of an illness in the parents, and

a history of childhood sexual trauma. The avoidance level increases with lack of attentive care during childhood, excessive control, being raised by persons other than the mother, and a history of childhood sexual trauma. There are many studies in the literature stating that persons with avoidance report their mothers as cold and refusing (Ainsworth, Blehar, Waters & Wall 1978; Feeney & Noller, 1990; Barholomew & Horowitz, 1991; Brennan et al., 1998, Feeney, 1999). Riggs and Kaminski (2010) report that individuals with high degrees of attachment anxiety and avoidance regarding romantic relationships report their parents as more refusing and more controlling and also report higher rates of childhood sexual abuse or trauma.

A disturbance of family integrity in childhood led to increased attachment anxiety, increased anxiety level and decreased number of persons in the first circle of these individuals together with a higher number for the outermost circle in the social atom. This finding may be in contrast to those reported in the literature. The literature reports that patients with a high level of anxiety have a higher need for close relationships (Shaver & Mikulincer, 2002, Edelstein & Gillath, 2008). Our results may be associated with a high level of avoidance in individuals with a high level of anxiety (Downing, 2008). The increased anxiety level led to an increased avoidance level as well. Individuals with high avoidance levels are uncomfortable with closeness and dependency making them increase their distance in interpersonal relationships (Rowe & Carnelly, 2005, Lock 2008).

Social Atom Variables

The second hypothesis in this study is that young adults structure their close relationships according to the anxiety and avoidance aspects of their attachment. When we evaluated the relationship between the social atom scale variables and anxiety and avoidance to test this hypothesis, we found a significant inverse correlation between the anxiety level and the number of persons in the first circle and a positive correlation between the anxiety level and the number of persons in the third circle. This indicates that the individual compensates for the increased attachment need without including more persons in the closest area. A high degree of avoidance results in a decreased number of persons in the first circle and significantly decreases the inclusion of friends in the first circle or the rate of having a romantic partner.

An increase in the number of persons in the first circle led to a decrease in the number of circles used and the number of the outermost circle. This finding is consistent with the results of the Roberts, Dunbara, Pollet and Kuppens (2009) study on the active network volume. That study has found that increased emotional intensity leads to fewer persons in the social network and there was an inverse correlation between emotional closeness and network volume.

Young adulthood is the period when attachment is transferred from the parents to friends or the romantic partner (Feeney, 2004). We did not find the expected attachment hierarchy in our study. The persons put in the closest circle to “Me” were ordered as the mother, father, sibling and friend. The romantic partner could only get in front of the friend in this hierarchic order for those with a romantic partner. Berscheid, Snyder, and Omoto (1989) found that college students stated that the people with closest relationships were romantic partners, friends and family members respectively. However, Pitman and Scharfe (2010) reported from their similar study with the bull’s eye method that the subjects put their friends, mother and romantic partner close to the center at a rate of 33%, 17% and 17% respectively. The order in those without a romantic partner was a friend (43%), sibling (25%) and mother (20%). Those with a romantic partner put their romantic partner (31%) and friends (24%) close to the center. This result can be interpreted as collectivist culture leading to family attachments to endure young adulthood and preventing the transfer to friends and a romantic relationship as in the way seen in western cultures from developing. According to Trinke and Bartholomew’s (1997) study, in early adulthood primary attachment figures in descending order were mothers, partners, best friends, fathers, and siblings. In their study’s Fraley and Davis (1997) found that the majority of participants (60%) used their parents as primary attachment figures but were in the process of transferring attachment-related functions from parents to peers (best friends and romantic partners).

A history of illness in the parents during the subject’s childhood leads to an increase in the number of persons. The parents’ illness may also interfere with the caring of the child which can be compensated by increasing the number of accessible persons for the child. Similarly, suffering from an illness during a childhood and receiving unemotional care led to accepting more friends into the social atom.

The quality of childhood relations with the mother influences social atom variables. The mother's separation or a disrupted family during childhood, illness or childhood trauma during this period, the type of care and discipline received had a positive relationship with the mother's circle worth.

The place of the father in the social atom influenced some social atom variables. This may be due to an important role played by the father in the socializing processes as a safety symbol in Turkish culture. Other studies have found relationships with the father associated with self-esteem (LeCroy, 1988), individuation (Kalter, 1987) and heterosexual trust (South-worth & Schwartz, 1987). Dalton, Frick-Horbury and Kitzmann (2006) have shown in their study that the parental attitude of the father influences the quality of the romantic relationship with the romantic partner.

Variables Related to The Romantic Partner

The avoidance level and social atom volume seemed to influence whether a romantic partner was present in the regression analysis. Schindler, Fagundes and Murdock (2010) have also found the avoidance level to be a predictive factor regarding being involved in a romantic relationship in their prospective study.

The number of friends and persons in the social atom, the number of circles used and the number of the outermost circle were higher in subjects with a romantic partner. Those with an avoidance level lower than the mean put their romantic partners in circles closer to the center. These results indicate that subjects with a lower degree of avoidance are more effective in entering both social relationships and close emotional relationships. The lower number of friends in the social atom and giving the romantic partner a lower social atom worth in subjects with a high degree of avoidance support this.

The fact that the circle number and worth where the romantic partner was located was associated with whether the parents had suffered an illness during the subject's childhood may indicate that the risk of losing loved ones pushes the individual towards developing closer relationships.

The high rate of friends not being in the first circle when the romantic partner was not in the first circle and similarly of having no romantic partner when

the father is not in the first circle may be a reflection of the low degree of trust in others. Some authors suggest that adult attachment is a constant tendency to stay close to one or several people who can provide physical and/or psychological security and to continue this created attachment (Berman and Sperling 1994; Heffernan et al 2013).

Finally, the hypothesis that the attachment hierarchy of young adults in Turkish culture differs from those in the individualistic western cultures is verified. Similarly, the hypothesis that early childhood experiences influence the anxiety and avoidance levels which determine the rate of having a romantic partner in young adulthood is also confirmed.

Limitations

It is possible that obtaining childhood-related data with a survey can be associated with backward recall problems. Other limitations of the study are the lack of a scale for childhood parental attitudes or the approach to raising the child and discipline and the self-report character of the ECR-R scale used to evaluate the anxiety and avoidance aspects of attachment.

Practical Implications

The formation of personal social networks, development of personality and identity and shaping of interpersonal relationships are dynamic processes realized with interaction. Elucidating these interactions while taking the social network dynamics into account will enable new approaches to defining and solving the relevant problems. Using the Social Atom Scale in future studies on close relationships will be helpful as it can contribute to determining the formation principles for emotional relationships and attachments. It also makes it possible to scale structural characteristics of the network such as its size and density, and these are important factors in social network analyses.

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