AN EXPLORATORY STUDY ON THE LINK BETWEEN SIBLING RELATIONSHIPS AND FRIENDSHIP QUALITY

ASYA ALICI

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Asya Alıcı

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Between Sibling Relationships and Friendship Quality

The thesis of Asya Alıcı

has been approved by:

Assist. Prof. Yasemin Sohtorik İlkmen _____
(Thesis Advisor)

Prof. Feyza Çorapçı _____

Prof. Nebi Sümer _____
(External Member)

June 2022

DECLARATION OF ORIGINALITY

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ABSTRACT

An Exploratory Study on the Link Between Sibling Relationships and Friendship Quality

Sibling and friend relationships of emerging adults have been rarely studied compared to parent-child relationships. This study is primarily designed to explore the link between sibling relationship qualities and best-friendship qualities of emerging adults in Turkey, by investigating the moderator role of birth order and gender on this link. It is aimed to test which one of the carryover, compensation, and segmentation models will be supported by the current data. 213 college students between 18-25 years of age filled out an online surveys. Regression analysis showed that sibling relationship quality in adulthood was a predictor friendship quality. In addition to the higher quality of sibling relationships, being a woman, more frequent contact with the best friend, and residing in the same city with the sibling positively predicted friendship quality. Childhood sibling relationship quality was positively associated with friendship quality, although it was not a significant predictor in presence of adulthood sibling relationships. A relationship between birth order and friendship quality could not be found. Results showed evidence for the carryover model. The findings of the study were discussed within the framework of carryover model as well as considering the cultural context and emerging adulthood period of development.

ÖZET

Kardeşlik ve Arkadaşlık İlişkileri Nitelikleri Arasındaki Bağlantı Üzerine Bir Keşif Çalışması

Beliren yetişkinlerin kardeş ve arkadaş ilişkileri, ebeveynleriyle olan ilişkilerine kıyasla nadiren incelenmiştir. Bu çalışma öncelikle, Türkiye'de, beliren yetişkinlerin kardeşlik ilişkisi nitelikleri ile en iyi arkadaşlık ilişkisi nitelikleri arasındaki bağlantıyı, ve bu bağlantıda doğum sırası ve cinsiyetin düzenleyici rolünü araştırmayı hedeflemiştir. Çalışma bulgularının, literatürde bu iki ilişki arasında bağlantıyı açıklamak için kullanılan üç modelden hangisini destekleyeceğini test etmek amaçlanmıştır. 18-25 yaş arası 213 üniversite öğrencisi, online anketi doldurarak çalışmaya katılım göstermiştir. Yapılan regresyon analizi, yetişkinlikteki kardeş ilişkisi kalitesinin arkadaşlık ilişkisi üzerinde yordayıcı olduğunu göstermiştir. Yüksek nitelikli kardeş ilişkilerine sahip olmanın yanı sıra kadın olmanın, en yakın arkadaşla daha sık iletişim kurmanın ve kardeşle aynı şehirde yaşamanın arkadaşlık ilişkisi niteliğini pozitif olarak yordadığı görülmüştür. Araştırma sonuçları, literatürdeki üç model, çalışmanın kültürel bağlamı ve örneklemin gelişimsel dönemi çerçevesinde tartışılmıştır.

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LIST OF ABBREVIATIONS

FOC-BF:	Frequency of Contact with the Best Friend
FOC-S:	Frequency of Contact with the Sibling
MFQ-FF:	McGill Friendship Questionnaire – Friend's Functions
SRQ:	Sibling Relationship Quality
RISC-S:	Residing in the Same City with the Sibling

CHAPTER 1

INTRODUCTION

The quality of intimate relationships has long been acknowledged as a critical variable for well-being and healthy psychosocial development. Among intimate relationships, relationships formed in the early years of life have always occupied a special place in psychological research and practice. The relationship between the child and its parents has always been a research topic of preference, as the parents are the earliest significant figures in one's life. More importantly, they are responsible for responding to the physical and emotional needs of the child. On the other hand, the relationships between siblings were largely overlooked until the last couple of decades (Brumbaugh, 2017). However, time spent with the siblings in the early years is not less than time spent with parents, and it is even more in some cultures (Updegraff et al., 2005).

Another social network appears on the stage as children grow up, namely the friendship network. Along with the beginning of the school years, children spend a remarkable amount of time with peers, and they develop friendships with the ones they choose among peers. Best friendships, especially, form one of the most intimate relationship networks throughout life. Over the last few decades, the interest in these significant yet under-investigated relationships increased, and ever since, there has been a growing body of research on the dynamics of relationships with siblings and friends at different periods of life and their impact on well-being (Brody, 2004; Öz-Soysal, 2016).

While sibling relationships of children, adolescents, and older adults have been studied often, there are fewer studies on sibling relationships in emerging

adulthood (Conger & Little, 2010; Hamwey et al., 2019). Additionally, the vast majority of research investigating intimate relationships of emerging adults either explored only one of the sibling or friend relationships (Conger & Little, 2010), measured the association between well-being and one of these relationships (Pittman & Richmond; 2008), or assessed the combined effect of them on well-being (Sherman et al., 2006). However, few studies focused on the link between sibling and friend relationships in emerging adulthood (Botelho, 2020; Voorpostel & Lippe, 2007). Furthermore, there is a gap in the literature on this particular topic in the context of Turkish culture. The current study was designed to address this gap by exploring the linkage between the qualities of childhood and adulthood sibling relationships and the current best friendships of emerging adults in Turkey.

This study was designed to examine the association between the quality of sibling relationships and relationship quality with the same-gender best friend. More specifically, the goal was to explore which model that explains the link between these relationships is supported by the data from an emerging adult population in a Turkish context. While doing that, we plan to assess the moderator role of demographic variables (e.g., gender and birth order of the participant) on this link.

In the following chapter, the literature on the impact of sibling relationships on psychosocial development will be reviewed first. Later, the associations of well-being to sibling relationship quality and friendship quality will be discussed. Afterward, three outstanding models from the literature on the link between sibling and friend relationships, namely carryover, compensation, and segmentation models, will be explained, along with a review of research supporting these models. In addition, the literature on these relationships in the context of Turkey will be reviewed. Lastly, the studies investigating the impact of birth order and gender on

these relationships will be presented, as these factors will be controlled in the analyses.

CHAPTER 2

LITERATURE REVIEW

2.1 Sibling relationships

Along with parents, siblings are one of the earliest figures in life. Sibling bonds are long-lasting and usually endure longer than those with parents or partners (Floyd, 1995). Additionally, children spend most of their time with their siblings (Updegraff et al., 2005). Despite the attention given to the early relationships with parents, the relationship between siblings remained understudied. The research exploring the early environment focused on parents and the quality of vertical relationships, whereas sibling relationships were almost neglected in the literature for a long time (Coles, 2003; Kriss et al., 2014; Mitchell, 2003; Vivona, 2014).

The first writings on sibling influence date back to the early 20th century. In the early years of psychoanalytic literature, Freud rarely referred to siblings in his writings, and when he did, the focus was on sibling rivalry (Coles, 2003). Adler's birth order theory (1928), on the other hand, was a pioneer work that inspired later researchers to examine the siblings' impact on personality development. Adler argued that the child's birth order, along with the child's age difference from other siblings, leads to certain personality features (1928).

Although the siblings were at the core of Adler's birth order theory (1928), this theory did not discuss the importance of sibling relationships either. The appreciation of sibling relationships came about in virtue of developmental psychologists who started to observe and examine sibling interactions in the 1980s. Thuswise, the approach to siblings in the psychology literature began to alter (Brody, 2004). These researchers manifested the unique place of sibling interactions in child

socialization and paved the way for further investigations regarding sibling relationships (Brody, 2004; Dunn, 1983; Schachter et al., 1976). They marked that the intense emotions and familiarity in the sibling interactions make them provide a unique kind of socialization context for children (Dunn, 2007). As a result, since the 1980s, researchers have been examining sibling relations closely, and the impact of siblings on each other's social, emotional, and cognitive development from early childhood on has been well documented (Brody, 2004).

The researchers distinguished parent-child and sibling-sibling interactions based on structure and affective quality. While the former is intergenerational/vertical, the latter is horizontal (Whiteman et al., 2011). Parents give and children receive care, resulting in an asymmetry in the relationship, whereas sibling relationships occur between relatively equally positioned children. Therefore, the sibling network is the first social environment of the children with more equal others who are similar in age (Mitchell, 2003). However, sibling relationships involve both reciprocal and hierarchical components (Dunn, 1983) since sometimes older siblings are likely to take care of younger siblings, especially in families with parental loss (Kriss et al., 2014). In relation to the structural differences, the affective load of the sibling relations differs from the parent-child relations. Dunn (2002), one of the pioneer developmental psychologists who appreciated the significance of sibling influence on psychosocial development, noted that sibling relationships have three important characteristics: They are emotion-loaded, and these emotions are expressed within the relationship; they are intimate relationships, and lastly, the dynamics vary from one sibling group to the other. The intimacy in sibling relationships was later emphasized by other psychologists as well (Mitchell, 2003; Coles, 2003), and an important factor that creates intimacy was considered the

intensity of feelings between siblings (Bedford et al., 2000). Punch (2008) argued that because siblings spend a significant amount of time together, they experience high levels of conflict and intimacy simultaneously. Taking into account all of these, it can be concluded that sibling relationships have dynamics that are similar to but also different from parent-child relations, thus justifying exploring sibling relationships separately from relationships with parents.

Whiteman and colleagues (2007) adverted two processes identified as underlying mechanisms of sibling influence, meaning the similarity or differences between siblings. The first of these processes is based on observational learning theory. According to this theory, younger siblings observe and model older siblings' behaviors (Whiteman et al., 2007) while older siblings advance their younger siblings' cognitive and language capacities by fulfilling a teacher role (Brody, 2004). Although modeling is often associated with positive developmental outcomes such as improving cognitive skills (Brody, 2004), siblings also reinforce negative behaviors as role models, such as externalizing problems (Natsuaki et al., 2009). The second process that attempts to explain sibling influence is deidentification (Whiteman et al., 2007). Schachter and colleagues (1976) defined deidentification as the mechanism through which the siblings identify and present themselves as different from each other to reduce sibling competition and prevent comparison by others. The researchers examined how college students with one or two siblings define themselves and found that the deidentification between the first and second children was the highest, followed by the second and third children. Finally, the deidentification was the lowest between the first and third children. Furthermore, participants with same-sex siblings defined themselves as more differentiated from their siblings than those with opposite-sex siblings. The researchers interpreted that

subsequent siblings who lack a buffering sibling in between and same-sex siblings deidentify more in an attempt to manage sibling rivalry and competition for the same interests and resources (Schachter et al., 1976). These findings indicate that deidentification increases along with sibling rivalry, which implies deidentification as a coping strategy. The results of Feinberg and colleagues' study (2003) supported this theory by revealing that siblings whose relationships with parents diverge experience lower sibling conflict.

2.1.1 Quality of sibling relationships throughout the life span

The quality of sibling relationships among children is commonly measured along two dimensions: warmth and conflict (Botelho, 2020). Sibling warmth refers to the positive affective transaction between siblings, while sibling conflict connotes negative transactions such as aggression, hostility, and quarrel (Sanders, 2004). Research on the quality of sibling relationships demonstrated a change in the quality of sibling relationships along these dimensions over time; specifically, sibling conflict tends to decline as children get older (Hamwey et al., 2019; Jensen et al., 2018; Kim et al., 2006). Kim and colleagues (2006) argued that as siblings become young adults, they complete their identity formation processes, and become more differentiated from their siblings, which in turn decreases sibling competition and conflict.

2.1.2 Quality of sibling relationships and well-being

As a long-lasting, significant relationship among peers in the family; the good quality of sibling relationships is correlated to psychological well-being in childhood (Buist et al., 2012; Graham & Coplan, 2012; Richmond et al., 2005), adolescence (Volling, 2003), and emerging adulthood (Alabucak-Cinalioğlu & İşmen-Gazioğlu, 2022; Milevsky, 2005). The meta-analysis study by Buist and colleagues (2012) illustrated the correlation of good sibling relationship quality (high warmth and low conflict) to fewer internalizing and externalizing problems. Graham and Coplan (2012) found a unique and protective effect of high sibling relationship quality on school adjustment of preschool children. Likewise, Milevsky (2005) showed how sibling support could balance out the impact of low support from peers and parents on the well-being of emerging adults. Additionally, sibling support was found to be positively related to life satisfaction and self-esteem and negatively linked to loneliness and depression in this study (Milevsky, 2005). Drawing from these findings, it can be concluded that sibling relationships are of importance in ameliorating well-being throughout life, both directly and indirectly.

2.2 Peer and friend relationships

2.2.1 Differences between peers and friends

Similar to siblings, nonsibling peers accompany children for a considerable amount of time and provide an essential context for socialization (Bukowski, 2003). Both sibling and peer relationships are considered horizontal as opposed to the vertical structure of intergenerational relationships such as those with teachers, parents, and other caregivers (Whiteman et al., 2011). However, a distinction should be made

between close friends and nonfriend peers. Rubin and colleagues (2006) noted that friendships are dyadic and identified several factors that differentiate friendships from other peer relationships. First, friendships are recognized by either side; second, the affection between these two people is reciprocal. Furthermore, friendship bonds develop voluntarily. In contrast to friendships, peers happen to be in the immediate environment as the children grow (Cuadros & Berger, 2016). Moreover, relationships with nonfriend peers involve less intimacy than friendships, especially best friendships (Sebanc et al., 2007). Two studies from the 1990s supported the argument that best friendships and peer relationships do not share the same dynamics, and they must be examined separately (Newcomb & Bagwell, 1995; Stocker and Dunn, 1990). Stocker and Dunn (1990) examined children's sibling relations, peer relations, and friendships in the same study and arrived at different associations between children's sibling relationships and those of peer and friend relations. Sibling relationship quality appeared uniquely correlated to friendship quality; however, sibling relationship quality alone did not predict the quality of peer relations. The findings implied that peer relationships and friendships of children are different domains of socialization and that their associations with sibling relationships differ accordingly. Newcomb and Bagwell's (1995) review of the studies that compare children's relations with friends and nonfriend peers demonstrated that friendships involve more reciprocity, intimacy, and social activity than peer relations. It should be noted, however, that more recent studies are needed to elaborate on these complex relationships, as there has been a lack of research comparing peer and friend relations in the last quarter-century. The present study focused on the best friendships of young adults rather than their relationships with a general peer group. This decision was made since intimacy is a common feature of

sibling relationships and best friendships, but not necessarily of relationships among peers.

2.2.2 Quality of friend relationships and well-being

The quality of friendship is a relatively new area of research. Towards the end of the 20th century, Hartup and Stevens (1997) suggested separately examining the qualitative characteristics of friendships and the number of friends. They reviewed prior research on friendship and concluded that both of these factors were shown to be correlated with psychological outcomes from childhood to older ages. Regarding best friendships, it is well documented that the quality of emerging adults' relationships with their best friends is related to psychological well-being variables, such as happiness (Buote et al., 2007; Demir et al., 2012; Demir & Davidson, 2013; Demir & Özdemir; 2010; Demir et al., 2013; Kirk, 2002; Leon et al., 2020). Kirk (2002) proposed that high friendship quality was positively associated with self-esteem and satisfaction in romantic relationships among young adults and negatively associated with fear of intimacy. Buote and colleagues (2007) examined whether the quality of university students' new friendships in the first year was linked to their adjustment to the university and demonstrated a positive link between the two variables. Similarly, Leon and colleagues (2020) found that lower degrees of loneliness were associated with higher friendship quality among first-year students. These studies focused on friendship quality without specifying the closeness of friendship. Nevertheless, Demir and colleagues (2007) proposed distinguishing best, close, and other friends because the level of intimacy they offer differs. Their study on personality, best friendship, and happiness of young adults showed that the best

friendship quality is predictive of happiness when the personality variables were controlled (Demir et al., 2007).

The association between friendship quality and well-being is not surprising as friendships are an important source of social support (Bokhorst et al., 2010) and social support is substantial for well-being (Chen & Feeley, 2014; Snapp et al., 2015). Chen and Feeley (2014) found a positive correlation between social support and the well-being of adults over 50 years. Furthermore, they found that social support from friends reduced the loneliness experienced. Another study demonstrated that the percentage of friends to whom the LGBT youth could come out and support from their friends in the areas of sexual or gender identity in adolescence predicted better life situations and higher self-esteem (Snapp et al., 2015).

Friends do not only provide support in daily life, but they are also sources of support in challenging life situations. Saraswati and Suleeman (2018) investigated the linkage between friendship quality and resilience of young adults from undivorced, divorced, and remarried family backgrounds. Friendship quality correlated with resilience in all three groups regardless of gender. Furthermore, participants from different familial backgrounds did not differ in resilience or friendship quality. Thus, the study indicated that good friendship quality might buffer the stress caused by parental divorce. The above-mentioned research points out that the quality of friendships and the social support offered by friends are both correlated to well-being, either directly or by buffering the negative outcomes of various risk factors.

2.3 Developmental and cultural context of sibling and friend relationships

2.3.1 Sibling and friend relationships during emerging adulthood

Arnett (2000) coined the term “emerging adulthood” for the developmental stage approximately between 18 and 25 years of age. He conceptualized this phase as a developmental period where crucial life transformations take place and argued that it should be examined separately from the transition between adolescence and adulthood since it is too long to be regarded as such (Arnett, 2007). He remarked on several characteristics of this period, such as achieving independence from parents, making major life choices, and exploring the options for love and work (Arnett, 2004). Major transitions occur during this period, such as moving out of the family house, starting a job, and committing to long-term intimate relationships (Hamwey et al., 2019). Independence is central for young adults, which might affect their relationships with siblings (Hamwey et al., 2019). Furthermore, major life events that usually occur in emerging adulthood, such as getting married, having children, and working full-time, were found to be associated with less sibling closeness (Aldrich et al., 2022). Conger and Little (2010) suggested the term “dynamic recentering” to define the alterations in relationship dynamics through emerging adulthood, referring to the rearrangement of the social network where relationships with new people gain importance while the old family relationships become less central. This view is in line with the findings from Pulakos’ study findings (1989), in which emerging adults reported more closeness with friends than with siblings.

Research supports the change in the quality of sibling relationships through emerging adulthood. There is usually a decline in sibling conflict from adolescence (Kim et al., 2006). Whereas children's sibling relationships are characterized by high

levels of conflict (Dunn, 1988; Furman & Buhrmester, 1985; Kramer, 2010), they involve high warmth and low conflict among emerging adults (Sherman et al., 2006; Hamwey et al., 2019), although the increased physical distance (Stewart et al., 2001).

When the unique characteristics of emerging adulthood and the research that shows a change in the quality of sibling relationships are considered, one can expect that the connection between sibling and friend relationships would also undergo certain transformations during this developmental period. However, the studies on the age-related variations in the interplay between sibling and friend relations are limited. In one study with college students, the correlation between the qualities of sibling relationships and nonromantic friendships appeared less than it was shown by earlier research with children (Botelho, 2020). The need for further studies on sibling and friend relationships among emerging adults persists since it is a transition period with different dynamics than childhood and adolescence (Hamwey et al., 2019).

2.3.2 Sibling and friend relationships of emerging adults in the context of Turkish culture

There are relatively fewer studies on the dynamics of emerging adults in Turkey, as the concept is relatively new compared to other cultures (Atak et al., 2016). However, a body of research exploring the intimate relationships of Turkish emerging adults started to grow in the last couple of years (Alabucak-Cinalioğlu & İşmen-Gazioğlu, 2022; Demir et al., 2012; Özen et al., 2011). Demir and colleagues (2012) examined whether one's perception of how much they matter to a friend underlies the association between friendship quality and happiness among Turkish and American college students. They found that friendship quality was related to happiness in both samples. Still, they also came across a cultural difference; while in

the Turkish sample, friendship quality had stronger correlations with happiness, in the American sample, perceived mattering to a friend was a stronger predictor of happiness. Demir and colleagues' study (2012) revealed the need to investigate emerging adults' relationships in the Turkish context. Although there is a growing number of studies examining emerging adulthood in Turkey, no study has yet examined the link between sibling relationships and friendships of emerging adults in this culture. This is the main focus of the current study.

2.4 Models on sibling and friend relationships

As research interest in horizontal relationships increased, friends and siblings appeared as the forerunners of human socialization (Stauffacher & DeHart, 2006), and their impact on psychological well-being was acknowledged as significant (Geerts-Perry et al., 2021; Raboteg-Saric & Sakic, 2014; Sherman et al., 2006). As two types of social relationships, sibling ties and friendships share common properties. Above all, sibling and friend relationships develop between people of the same generation (Pulakos, 1989). In other words, they are lateral/horizontal relationships (Whiteman et al., 2011). Therefore, more similarity could be expected between the interactions with siblings and friends as opposed to the interactions with parents and friends or parents and siblings. Additionally, both siblings and friends are significant sources of social support, particularly in challenging life transitions (Abbey & Dallos, 2004; Buote et al., 2007). Nevertheless, these relationships develop in different contexts, and accordingly, their emotional contents are not identical. First and foremost, sibling relations grow within the nuclear family, and they start very early. Secondly, since the siblings are highly familiar with each other, the feelings arouse within the sibling interactions tend to be intense (Bedford et al.,

2000). For example, children define their sibling relationships as involving the highest conflict among other close relationships (Furman & Buhrmester, 1985). Moreover, friends are actively chosen, whereas sibling relationships are not (Özen et al., 2011; Pulakos, 1989; Reis et al., 2000). Since sibling and friend relationships have both similar and different characteristics, researchers have attempted to shed light on the associations between these two relationships in recent years, especially how the quality of one is related to the quality of the other, which is also the main purpose of the present study.

The association between sibling and other peer relationships in childhood (Botelho, 2020) and adolescence (Noel et al., 2018; Updegraff et al., 2002) has been researched frequently. In most of these studies, the study unit is peers in general rather than close friends (Schneider & Atkinson, 2001; Wilkinson, 2004). Although the present study will focus on best friendships, studies on the link between sibling and peer relationships will be included in the literature review since the peer network includes both close friends and nonfriend peers, and researchers generally did not examine the two separately.

The literature presents inconsistent results regarding the link between sibling and peer/friend relationships (Smorti & Ponti, 2018). Some of the findings indicated a positive correlation (Lam et al., 2021; Yeh & Lempers; 2004), some others showed a negative correlation (Stocker & Dunn, 1990), and some of the findings did not show any correlation between sibling and friend relationship qualities (Hakvoort et al., 2010). These contradictory findings led researchers to develop various models by which they interpret the concordance, discordance, or lack of association between qualities of these relationships, namely carryover, compensation, and segmentation models, respectively. These models do not necessarily discredit one another, and it is

possible to come across evidence for two models in the same study (Sherman et al., 2006; Stocker & Dunn, 1990). In the following sections, these models will be presented in order.

2.4.1 Carryover model

The carryover model proposes that the early relationship patterns with siblings are transferred to later relationships with friends. Therefore, it is assumed that the quality of sibling relationships would predict the quality of friendships (Sherman et al., 2006). Roskam and colleagues (2015) offered attachment theory and social network theory in the context of children's relationships with parents, siblings, and peers to explain this carryover effect. In addition, social learning theory has often been cited to understand the concept of sibling influence on peer/friend relations conceptually. How these three approaches shed light on carryover among relationships will be explained respectively.

Attachment theory was grounded on the findings that from early years on, children develop attachment bonds to their caregivers, mostly their parents and more particularly, their mothers (Bowlby, 1958). Ainsworth (1972) coined the term "security" to identify the quality of the attachment bond. The security level of the attachment bond to the caregiver is determined by the child's experience with the caregiver. In case of the presence of a caregiver who serves as a secure base to explore from and a safe haven for times of overwhelming experiences, the child develops a secure attachment bond to this caregiver. Otherwise, if the child's need for comfort and exploration are not met, the attachment bond to that caregiver unfolds as insecure. The carryover effect from sibling relations to peer relations is based on these early experiences with the attachment figures. The child forms

internal working models which involve expectations about the self and the other (Bowlby, 1973). The internal working models, thus, become a reference point for what to expect and how to behave in later relationships. This way, the quality of the early attachment relationship would be carried onto later relationships. Although the attachment figure is often considered the mother, Ainsworth (1964) showed that children are likely to develop multiple attachment bonds with several other figures such as fathers, other adults, and preferred siblings. Therefore, according to the attachment perspective, the quality of sibling and friendship bonds is determined by early attachment quality. The studies on the link between sibling relationships and friendships are sparse in attachment literature, and most research focuses on parent or peer attachments (Miljkovitch et al., 2021). However, two recent studies demonstrated a positive link between the security of sibling attachment and positive friendship relations (Noel et al., 2018; Williams, 2019).

Lewis' social network model (2005) attempted to embody different social relationships, such as those with siblings, peers, teachers, and partners. According to the social network model, the mother-infant relationship does not necessarily constitute a pattern for all later relationships. Instead, early relationships with other figures might be effective in socialization as well. Lewis (2005) acknowledged the influence of mother-child attachment and, like Bowlby (2008) and Ainsworth (1979), argued that children form attachment bonds with several people. However, he criticized attachment theory for overemphasizing the mother-child attachment as a base for all later interactions and drawing direct causal links between the mother-child attachment and the quality of other relationships (Roskam et al., 2015). He further proposed that although there might be associations between different interactions of one individual, all social interactions develop in different pathways;

and fulfill different functions. Therefore, social network theory indicates a carryover effect but leaves the door open for some incongruence between the qualities of child-parent and child-peer relationships (Roskam et al., 2015). Roskam and colleagues (2015) conducted two studies to test attachment and social network theories to explain the carryover effect. The findings showed that sibling relationship quality both mediated the link between attachment style and the quality of peer relationships, and it also affects peer relationships above and beyond the attachment to the parents. The attachment effect was inconsistent in the two studies, but the researchers stated that it accounts for a small part of children's later peer relations. Therefore, the authors concluded that the study findings were more in line with the social network model than the attachment model.

Similar to the attachment perspective, Bandura's (1977) social learning theory can be used to understand the carryover model. According to Bandura, children observe and learn behaviors in their interactions with parents and maintain these behaviors in later interactions with friends. Social learning occurs in sibling interaction as well (Kramer & Conger, 2009). To elaborate on the sibling influence on socialization, Kramer and Conger (2009) named several processes, namely observational learning, identification/deidentification, and enhancing socio-emotional skills, in which siblings support socialization in other relationships. Observation allows siblings to learn how to socialize and act among peers (Kramer & Conger, 2009). Siblings develop similar features through identification and different features through deidentification processes (Whiteman et al., 2007). Finally, socio-emotional skills gained within the sibling relationship influence the quality of socialization (Kramer & Conger, 2009).

In line with social learning theory, Hughes and colleagues (2006) found that 2-year-olds' verbalizations of their desires, perceptions, and feelings are associated with the quality of play with their siblings. Another study that supported social learning theory showed that having an older sibling fostered perspective-taking, emotional understanding, deception, and self-awareness (Taumoepau & Reese, 2014). Additionally, Smorti and Ponti (2018) indicated sibling influence on prosocial skills in childhood by demonstrating that prosocial behavior mediated the link between sibling relationship quality and the best friendship quality. These findings showed that children seem to learn specific socio-emotional skills within sibling interaction (Hughes et al., 2006; Taumoepau & Reese, 2014) and exert them in best friend relations, which improves friendship quality (Smorti & Ponti, 2018).

Studies beyond the aforementioned research demonstrated a carryover effect between sibling and peer relationships among children (Lam et al., 2021) and adolescents (Yeh & Lempers, 2004), but the mechanism behind the carryover effect was not specified in these studies. A longitudinal study by Yeh and Lempers (2004) did not only confirm the carryover effect for adolescents but also demonstrated the direction of the carryover. They found a bidirectional positive correlation between the qualities of sibling and friend relationships. However, sibling relationship quality at the first measurement had more predictive power on later friendship quality than the other way around. These results suggested that early sibling relationships are effective in relationships with friends.

2.4.2 Compensation model

In addition to the findings supporting the carryover model, the literature also yielded evidence for negative associations between sibling and friend relationships, and the

researchers interpreted these findings within the framework of the compensation model (Mendelson et al., 1994; Stauffacher & DeHart, 2006; Stocker & Dunn, 1990). Stocker and Dunn (1990) interpreted the incongruence between the qualities of sibling and friend relations of children through two alternative explanations: First, children may be seeking and developing particularly high-quality friend relations to make up for their low-quality sibling relationships. Second, children who experience high control and competition in their sibling interactions may have developed specific social skills, which later help them build higher quality friendships. In line with the second hypothesis, it is stated that childhood sibling interactions allow intense feelings of aggression as the siblings are expected to maintain the bonds under any circumstances and cannot break connections over a conflict (Bedford et al., 2000). This way, they acquire conflict-resolution skills in sibling interactions (Kramer & Conger, 2009). When they experience conflict with their friends later in life, they know how to manage it, indirectly improving their friendships (Stocker & Dunn, 1990). However, compensation may occur in the opposite direction as well. For instance, Milevsky (2005) attained a reverse pattern with young adults, showing that sibling support may counterbalance the effect of lack of support from friends on well-being.

Mendelson and colleagues (1994) demonstrated the compensatory role of sibling relationships in kindergarten children. Children who reported more positive feelings toward a same-gender friend had more conflict and less positive feelings towards their siblings. Therefore in this study, friend relationships of children were found to compensate for the lower quality sibling relations. Stocker and Dunn (1990) used a multi-informant method to observe children's relationships with peers, friends, and younger siblings. Children observed as controlling and competitive in

their sibling interactions were rated as having more positive best friendships by their mothers, which supports the compensation model. At the same time, mother reports on positive sibling relationships were correlated with mother reports on positive friendships, which supports the carryover effect. The incongruence between mother and children reports might have resulted in conflicting findings. Sherman and colleagues (2006) surveyed young adults about their relationships with siblings, same-gender and cross-gender best friends, and their loneliness and self-esteem levels. The results showed that the harmony (low conflict - high warmth) in same-gender best friendships could compensate for the negative effects of ambivalent (moderate warmth and conflict) sibling relationships on well-being. This study supported the compensation effect of friendships without showing discordance between sibling and friend relationships. In summary, this limited number of studies showed that positive friendship relations might compensate for the lack of positive or presence of conflictual sibling relationships. Furthermore, this compensatory pattern might work in the opposite direction, meaning a lack of positive friendship with peers might be compensated by more positive sibling relationships.

2.4.3 Segmentation model

The third model, which did not originate from the clinical psychology literature but from organizational psychology, is known as the ‘segmentation model’ (Gupta & Beehr, 1981) or the no-relationship hypothesis (Meissner, 1971). Gupta and Beehr (1981) illustrated segmentation as the “hypothesis in which the individual's activity, involvement, and attitudes in one life sphere are not consistently related to responses in another sphere of life” (p. 204). In the cases where the work and nonwork life was found to be uncorrelated, it is identified as segmentation by the researchers (Dolan &

Gosselin, 2009). In the context of the current study, segmentation would refer to the lack of any relationship between the qualities of sibling relationships and friendships. As some studies that fail to show any link between sibling and friend relationships (Hakvoort et al., 2010), it is reasonable to consider the third model to explain this pattern. The sibling and friend relationships would be independent, and the quality of one relationship would not predict the quality of the other, according to this model. Hakvoort and colleagues' study (2010) yielded evidence for this model, as they found no association between sibling affection or quarreling and psychosocial competence with peers in their research conducted with children who have a younger sibling. Segmentation is also observed in the studies that support carryover or compensation models for particular gender or birth order conditions but fail to show any relationship between sibling and friend relations for other conditions (Lam et al., 2021; Oliva & Arranz, 2005). In the current study, this third model will be considered as well in the exploration of the relationship between sibling and friend relationships among young adults in a Turkish context.

2.5 Birth order, gender, and friendship quality

To carry out a holistic look at the linkage between sibling and friend relations, the individual parameters that may affect friend relationships should be considered. Since Adler mentioned the importance of birth order, it has been a famous area of research. Although the research on the birth order effect on personality characteristics provided inconclusive results (Damian & Roberts, 2015), birth order signifies the position of the children among their first peer network, namely siblings. Therefore, it is of importance for the current study. As stated in the earlier chapters, younger siblings look up to older siblings as role models and can learn from them

(Whiteman, 2007). Therefore, the influence of older siblings on younger siblings is expected to be more than the influence of younger siblings on older ones (Updegraff, 2002). Following this prediction, McHale and colleagues (2001) studied the gender development of children and found a birth order effect on the sibling influence. The researchers interviewed firstborn and secondborn siblings and their parents once for three years. The findings supported the social learning theory for secondborn children influenced by the gender role identification of their older siblings. However, it supported the deidentification theory for firstborn children who differentiated from their younger siblings over three years. This study indicated that birth order predicts how the siblings influence gender development in each other.

The literature presents inconsistent results on how friendship quality changes by birth order. For instance, Salmon and colleagues (2003) studied whether birth order is related to young adults' perception of their family and friend relationships and illustrated that middleborns had more positive attitudes towards friends and less positive attitudes towards family than firstborns and later-borns. Simanko and colleagues (2020) demonstrated the opposite, that middleborns are not different from other birth orders in closeness to friends. The literature on how birth order impacts the associations between sibling and friend relations is also scarce. Updegraff and colleagues (2002) found a carryover effect in the control dimension both for firstborn and secondborn adolescents, but the intimacy with siblings was related to intimacy with friends only for secondborns. A recent study by Lam and colleagues (2021) showed a positive association between sibling conflict and the level of being disliked or left out by peers only for later-born boys. So they found both birth order and gender effects in this study.

Along with birth order, gender emerged as a variable associated with the qualities of peer and friend relationships in the literature (Demir & Orthel, 2011; Oliva & Arranz, 2005; Updegraff et al., 2002). Demir and Orthel (2011) found a gender difference in current friendship quality and the definition of ideal friendships for college students. Both the current and ideal best friendships of women involved lower conflict and higher quality than those of men. Oliva and Arranz (2005) found that gender moderated the link between the quality of friendship and sibling relations of adolescents; while good sibling relationships predicted good peer relationships only for girls, the authors failed to find the same link for boys.

The findings mentioned above indicate that the qualities of peer and friend relationships might be influenced by the birth order and gender of the individual. These findings suggest that birth order and gender provide an essential context for different associations between sibling and friend relationships. However, only a handful of studies attempted to grasp the effect of birth order and gender on the association between these relationships. Furthermore, to the author's knowledge, no study has explored this link depending on the gender composition of the sibling dyad and birth order of the emerging adult participants. By assessing the moderator roles of these factors on the connection between sibling and friend relationship quality, the current study attempts to go beyond the existing research.

2.6 The purpose of the present study

The literature showed that gaining independence from the parents is central to emerging adulthood, leading to certain changes in the old and new relationship dynamics (Arnett, 2004; Hamwey et al., 2019). This unique feature of young adulthood requires a closer examination of the relationships in this period since the

quality of friendships is one of the key elements predicting psychological well-being as an important source of social support. However, the studies on the link between sibling and friend ties are rare, and more so in the context of Turkish emerging adults. These factors necessitate further examinations of the unique dynamics between these relationships among emerging adults.

The purpose of the present study is to provide a closer examination of the associations between two intimate relationships, namely sibling and best friend relationships of emerging adults. For this purpose, the quality of the participants' relationships with their siblings closest in age, and with their same-gender best friends will be measured. Given the inconsistent findings provided by prior research on the topic, no definitive link was hypothesized between sibling and friend relationships. Rather, the aim is to explore which of the previously mentioned models the data will support. If the sibling relationship quality positively predicts friendship quality, the study will provide evidence for a carryover effect. If lower sibling relationship quality predicts higher friendship quality, it will support the compensation model. If sibling relationship quality does not predict friendship quality, it will support the segmentation model. While doing that, the author plans to expand on the previous research on the topic and examine whether the gender and birth order of the participant will moderate the link between the quality of sibling relationships and friendships.

CHAPTER 3

METHOD

3.1 Participants

An a-priori power analysis was conducted with G*Power (Faul, Erdfelder, E., Buchner, A., & Lang, 2009) to calculate the sample size to acquire .95 power with a .05 alpha level. Based on prior research on similar constructs (Benson et al., 2006; Dryburgh et al., 2021) .07 effect size was assumed. The power analysis suggested a minimum sample of 188 participants. 316 participants opened the survey, and 281 of them completed the study. The age difference between fifty-nine participants and their siblings exceeded five, so they were excluded. Seven participants did not answer the items based on their same-gender best friends; thus; they were also excluded. Lastly, the duration of cohabiting with the sibling was extremely short for two participants, and their data were also excluded. In total, data from sixty-eight participants were excluded. One of the participants completed the study three times, and only one of their answers was included in the analysis. Finally, data from 213 participants were used in the analysis, and their age range was between 18 and 25 (M = 20.77; SD = 1.34). The majority of the participants were female (70.0%). All of the participants were unmarried undergraduate students.

Most of the participants have one sibling (47.4%) or two siblings (34.3%), and fewer participants have three (14.6%) or four siblings (3.8%). The number of siblings was coded into three categories: one, two, and three or more siblings. The birth order of the participants was coded in two ways: First, they were coded as firstborn if they have only younger siblings (42.3%), lastborn if they have only older siblings (34.3%), and middleborn if they have both younger and older siblings (23.5%).

Secondly, birth order was coded concerning the target sibling. For this variable, participants were coded as older if they were older than the sibling (52.1%), younger if they were younger than the sibling (45.5%), and same-age if they reported their age as the same as the age of their sibling (2.3%). Finally, the gender constellation of participant and sibling were coded either as same (55.4%) or different (44.6%). Demographic characteristics of the sample after all the exclusions were presented in Table 1.

Table 1. Sample Characteristics

Demographic Variables	*n*
Age of the participant	
Mean (SD)	20.77 (1.34)
Range	18 - 25
Gender of the participant	
Female (%)	149 (70)
Male (%)	64 (30)
Birth order concerning the target sibling	
Older (%)	111 (52.1)
Younger (%)	97 (45.5)
Same age (%)	5 (2.3)
Birth order among all siblings	
Firstborn (%)	90 (42.3)
Middleborn (%)	50 (23.5)
Lastborn (%)	73 (34.3)
Gender constellation with sibling	
Same (%)	118 (55.4)
Opposite (%)	95 (44.6)
Number of siblings	
One (%)	101 (47.4)
Two (%)	73 (34.3)
Three (%)	31 (14.6)
Four (%)	8 (3.8)
Frequency of contact with the best friend	
Mean (SD)	4.56 (1.37)
Range	1-6
Frequency of contact with the sibling	
Mean (SD)	4.25 (1.45)
Range	1-6
Resides in the same city with the best friend	
Yes (%)	153 (71.8)
No (%)	60 (28.2)
Resides in the same city with the sibling	
Yes (%)	101 (47.4)
No (%)	112 (52.6)
Childhood SES	
Mean (SD)	5.61 (1.71)
Range	1-10
Current SES	
Mean (SD)	5.74 (1.47)
Range	1-9
Mother education	
Illiterate or primary school (%)	48 (22.5)
Secondary education (%)	78 (36.6)
Bachelor or beyond (%)	87 (40.8)
Father education	
Illiterate or primary school (%)	28 (13.1)
Secondary education (%)	61 (28.6)
Bachelor or beyond (%)	124 (58.2)

Note. N = 213.

3.2 Measures

3.2.1 Demographic information form

The participants were asked several demographic questions to gather information about themselves, their sibling, and their best friend. First, they were asked whether the participant currently resides in the same city as their best friend. Second, participants were expected to specify the frequency of contact on a scale (1 = “few times a day”, 2 = “once a day”, 3 = “few times a week”, 4 = “once a week”, 5 = few times a month”, 6 = “once a month”, 7 = “few times a year”, 8 = “once a year”, 9 = “less often”, 10 = “never”). The age and gender of the target sibling and best friend were also asked. Furthermore, the number of years spent in the same household as the sibling was asked in order to eliminate participants who did not share the same household with the target sibling. The demographic questions about the target friend were given at the end of the friendship questionnaire, and those about the target sibling were presented at the end of the sibling questionnaire. The rest of the demographic information was collected at the end of the survey. Specifically, they were questions about the participant’s current educational level, marital status, and birth order. Lastly, the participants were given the subjective SES scale developed by Adler and colleagues (2000) to measure their current and past socioeconomic levels. Demographic information questions were presented in Appendix D.

3.2.2 McGill Friendship Questionnaire - Friend’s Functions (MFQ-FF)

The quality of the relationship with same-sex best friends was measured with the McGill Friendship Questionnaire - Friend’s Functions (Mendelson & Aboud, 1999). The 30-item questionnaire was developed to measure the respondent’s perception of

how much their friend fulfills friendship functions in six different areas: stimulating companionship, help, intimacy, reliable alliance, self-validation, and emotional security. Each subscale includes five items which are rated on a 9-point scale from 0 to 8, ranging from “never” (zero points) to “always” (eight points). By calculating the mean of all scores, an overall score is obtained. The scale is completed for same-sex and opposite-sex friends. Mendelson and Aboud (1999) found that the original version of the study was reliable, with internal consistency rates of six subscales between .84 and .90. By calculating the means of all items, an overall score is obtained. In the original version of the questionnaire, (Mendelson & Aboud, 1999) the internal consistencies of Stimulation Companionship (α = .84), Help (α = .84), Intimacy (α = .90), Reliable Alliance (α = .88), Self-Validation (α = .89), and Emotional Security (α = .85) were found good or excellent. Özen and colleagues (2011) translated the questionnaire and confirmed its internal consistency both for same-sex friends (α = .96) and for opposite sex-friends (α = .98) for Turkish emerging adults.

In the current study, participants were expected to rate the items only in reference to their same-gender best friends (see Appendix C). Chronbach’s alpha was found to be .97 for the total friendship quality score.

3.2.3 Life-Span Sibling Relationship Scale (LSRS)

Sibling relationship quality was assessed using the Life-Span Sibling Relationship Scale developed by Riggio (2000). The scale was developed to assess young adults' current and past sibling relationship qualities. It involves 48 items to be rated on a 5-point scale from “strongly agree” to “strongly disagree”. The scale consists of six subscales: child affect, adult affect, child cognitions, adult cognitions, child behavior,

and adult behavior. The scale involves eight reverse-coded items. A total score is obtained between 48 and 240; a higher score means a more positive relationship with the sibling. In the original version of the scale (Riggio, 2000), the total scale was shown to have high internal consistency (α = .96), with subscale internal consistencies ranging between .84 and .91. Test-retest reliability of the scale over one month was good (*r* = .91). The construct validity of the scale was evidenced by convergent and discriminant validity studies. The total score was positively correlated with measures of social support from the sibling and warmth between siblings, and it was negatively correlated with social desirability. Öz-Soysal (2016) adapted the scale to Turkish and explored its psychometric properties with university students. The researcher used confirmatory factor analysis to test for the construct validity, and they found that the six-factor structure is acceptable. Test-retest reliability (*r* = .95) and internal consistency estimates (48 items; α = .96) indicated the measure as reliable.

In the current study, internal consistency for the total score was α = .92. However, instead of the total score, sibling relationship quality in childhood score and sibling relationship quality in adulthood score were calculated first and used in the analyses separately. Chronbach's alphas were .85 for childhood score and .90 for adulthood score. In the present study, instead of total scores, mean scores for childhood and adulthood variables were calculated to attain compatible scores with MFQ-FF (Mendelson and Aboud, 1999). Furthermore, the Likert scale was presented in the opposite direction, ranging from "strongly disagree" to "agree" (see Appendix C) to ensure consistency among the two measures.

3.3 Procedure

The data were gathered through the research participation system at the Psychology Department at Boğaziçi University. The inclusion criteria for the participants were to be in the age range of 18-25 and to have at least one sibling within 5 years of the participant's age. The participants were Boğaziçi University students who take at least one of three psychology courses, and they received 0.5 credits in one of these courses for their participation in the study.

Ethical approval was received from The Ethics Committee for Master and PhD Theses in Social Sciences and Humanities (SOBETİK) of Boğaziçi University before the data collection process started, which can be found in Appendix A. Afterward, the survey was prepared on Psytoolkit (Stoet, 2010, 2017), a software designed for surveys and experiments. Participants were reached out through the research participation system of Boğaziçi University, and they were sent an online link to the online survey on Psytoolkit. Along with the online link, they were informed about the aim, participation criteria, incentive, and duration of the study. The aim of the study was depicted as "to understand the sibling and friend relationships of young adults." Those who open the online link were initially given brief information about the study, similar to the one given before. Right after that, the participants were expected to read and fill out the consent form, in which they were informed that they could quit the study whenever they preferred, and in case they did, their data will be deleted. At this point, they also found the contact information of the researcher and ethics committee. Only those who agreed to participate in the study based on this information could proceed further to the survey questions. Later, sibling and friend relationship questionnaires were presented. To counterbalance the order effect, the sibling questionnaire or the friendship

questionnaire were randomly presented first. At the end of each questionnaire, related demographic questions were presented. At the end of the survey, the rest of the demographic information was collected from the participants.

CHAPTER 4

RESULTS

4.1 Descriptive statistics

Descriptive statistics for the study variables and MFQ-FF subscales were calculated, and they were displayed in Table 2. Internal consistency scores for the measures are presented in Table 3. All assumptions other than normality were confirmed. To check for the normality assumption, z-scores for skewness and kurtosis values were calculated. For middle-sized samples, as in the present study, the absolute z-scores exceeding 3.29 indicated non-normality (Kim, 2013). Considering the z-scores of skewness, MFQ-FF score and the frequency of contact with the best friend were square-root transformed. MFQ-FF score was reversed before square root transformation as it was negatively skewed. Data analysis was run on Statistical Package for Social Sciences (SPSS) 27.

Table 2. Descriptive Statistics for Study Variables

Variable	Mean	SD	Min.	Max.	Skewness/ SE of Skewness	Kurtosis/ SE of Kurtosis
Child SRQ[a]	1.59	.27	.90	2.27	.01	-1.08
Adult SRQ[b]	1.73	.32	.75	2.33	-2.08	-1.10
MFQ-FF[c]	6.63	1.02	3.37	8.00	-4.76	.16
Stimulating Companionship	6.47	1.16	2.20	8.00	-3.61	.29
Help	6.65	1.23	2.00	8.00	-6.25	2.18
Intimacy	6.62	1.33	2.20	8.00	-6.29	1.64
Reliable Alliance	7.08	1.13	2.40	8.00	-11.28	12.40
Emotional Security	6.53	1.25	2.00	8.00	-5.28	1.26
Self-Validation	6.45	1.35	1.80	8.00	-5.34	1.33

Note. $N = 213$.

[a]Sibling relationship quality in childhood. [b]Sibling relationship quality in adulthood. [c]Total score received from McGill Friendship Questionnaire – Friend's Functions.

4.2 Demographic variables and friendship quality

The intercorrelations between SRQ scales, MFQ-FF subscales, and MFQ-FF total score can be found in Table 3. Since all subscale scores were correlated with the total best friendship quality score, the main analyses were conducted using only the total score.

Table 3. Correlations Between Sibling Relationship Quality and MFQ-FF Subscales

Variables	1	2	3	4	5	6	7	8
1. Child SRQ[a]	-	-	-	-	-	-	-	-
2. Adult SRQ	.51***	-	-	-	-	-	-	-
3. SC[b]	.27***	.35***	-	-	-	-	-	-
4. Help	.12	.31***	.59***	-	-	-	-	-
5. Intimacy	.10	.20**	.59***	.60***	-	-	-	-
6. Reliable Alliance	-.01	.10	.511***	.57***	.62***	-	-	-
7. Emotional Security	.25***	.32***	.67***	.67***	.63***	.54***	-	-
8. Self-Validation	.17*	.32***	.64***	.63**	.69***	.56***	.69***	-
9. MFQ-FF	.20**	.33***	.81***	.82***	.83***	.74***	.85***	.86***

Note. *$p < .05$. **$p < .01$. ***$p < .001$.
[a]Sibling relationship quality. [b]Stimulating companionship.

All correlations between demographic and study variables are presented in Table 4. Pearson's correlation, independent sample t-tests, and ANOVAs were conducted to examine the relationship between the quality of best friendship and demographic variables.

Pearson's correlation showed that the participant's age and friendship quality were not significantly correlated, $r = -.06$, $p = .39$. Regarding the frequency of contact, results indicated a significant and positive relationship between the frequency of contact with the best friend and friendship quality, $r = .22$, $p < .01$. However, friendship quality was not related to the frequency of contact with the sibling, $r = .04$, $p = .61$.

Turning to SES, best friendship quality was associated neither with SES level in childhood ($r = -.04$, $p = .61$), nor with the current SES level ($r = .04$, $p = .53$).

The difference in friendship quality based on categorical variables was measured using independent samples t-test and ANOVAs. Before conducting these tests, the homogeneity of variance was confirmed. Regarding gender, friendship quality was significantly correlated to the participant's gender. Specifically, women (M = 1.92, SD = .32) have higher friendship quality than men (M = 1.74, SD = .30), t (211) = 3.71, $p < .01$, d = .56, 95% CI [.26, .85]. Regarding the status of residing in the same city, friendship quality did not differ between those who do and do not reside in the same city with their friends, t (211) = 1.48, p = .14. On the other hand, those who do not reside in the same city rated their friendship quality higher than the others, t (211) = 2.84, p = .005.

While testing the difference in friendship quality based on birth order in relation to the target sibling, five participants who were the same age as their siblings were excluded from the analysis. The results of the t-test did not show a significant difference between participants who are older or younger than the target sibling, t (206) = .36, p = .72. ANOVA results also did not yield a significant difference among firstborns, middleborns, and lastborns in their friendship qualities, F (2, 210) = .13, p = .88. Regarding the gender constellation, there was no significant difference in friendship qualities between same-gender and different-gender sibling dyads, t (211) = .33, p = .75. Similarly, when the number of siblings was examined, results showed no significant difference among the friendship qualities of participants with one sibling, two siblings, or more siblings situations, F (2, 210) = .82, p = .44.

Best friendship quality did not differ by the education level of the mother, F (2, 210) = .45, p = .64. There was also no difference in friendship quality based on the father's education level, F (2, 210) = .10, p = .37.

In sum, results of preliminary analyses demonstrated that women had higher friendship quality than men. Furthermore, participants who live in a different city from the target sibling had better friendship quality than others. Lastly, more frequent contact with the best friend was linked to better relationship quality with that friend. There were no significant differences in friendship quality based on the other demographic variables.

4.3 Correlations between the qualities of sibling and friend relationships

As the aim of this research is to investigate the link between sibling relationship quality and friendship quality, the correlation between these variables was analyzed. Before running the Pearson's correlation, the linearity assumption was checked and confirmed. Correlations among the study and demographic variables were displayed in Table 4. The quality of sibling relationships in childhood and the quality of sibling relationships in adulthood were included in the analysis as two different scores in addition to one total score of sibling relationship quality. When separately examined, friendship quality was positively and significantly linked to both childhood sibling relationship quality ($r = .20$, $p < .01$) and adulthood sibling relationship quality ($r = .33$, $p < .001$).

Table 4. Correlations Between Study Variables

Variables	1	2	3	4	5	6	7	8	9
1. Participant's age	-	-	-	-	-	-	-	-	-
2. Age difference	-.07	-	-	-	-	-	-	-	-
3. FOC-BF[a]	.02	.21**	-	-	-	-	-	-	-
4. FOC-S[b]	.03	-.02	-.02	-	-	-	-	-	-
5. Childhood SES	.03	-.03	.09	.15*	-	-	-	-	-
6. Current SES	-.03	.04	-.08	.03	.35***	-	-	-	-
7. Child SRQ[c]	.09	-.14*	.07	.16*	.13	.06	-	-	-
8. Adult SRQ	.04	.06	.06	.42***	.14*	.06	.51***	-	-
9. MFQ-FF[d]	-.06	.13	.22**	.04	-.04	.04	.20**	.33***	-
10. Chronbach's alpha[e]	-	-	-	-	-	-	.85	.90	.97

Note. *$p < .05$. **$p < .01$. ***$p < .001$.
[a]Frequency of contact with the best friend. [b]Frequency of contact with the sibling. [c]Sibling relationship quality. [d]Best friendship quality. [e]Internal consistency rates of the scales.

4.4 Supplementary Analyses

In order to observe whether the friendship quality changes as a function of the change in sibling relationship quality from childhood to adulthood, the participants were initially divided into four groups using median split method, namely high childhood-high adulthood, high childhood-low adulthood, low childhood-low adulthood, and low childhood-high adulthood SRQ. Later, an ANOVA test was carried out. The results were significant with $F = 3.54$, $p < .05$. Tukey's HSD test showed that participants with high childhood – high adulthood SRQ ($M = 1.93$, $SD = .33$) had higher best friendship quality than those with low childhood – low adulthood SRQ ($M = 1.77$, $SD = .33$).

4.5 Predictors of best friendship quality and the moderating role of gender

A hierarchical multiple regression analysis with four steps was run on the SPSS. Before running the analysis, sibling relationship quality variables were mean-centered. Linearity, normally distributed residuals, and homoscedasticity assumptions were checked before the regression analysis, and all of the assumptions were met. Although there was a moderate correlation between childhood SRQ and adulthood SRQ (r = .51), there was no multicollinearity according to collinearity statistics.

The first step of the analysis consisted of the participant's gender, frequency of contact with the best friend, and residing in the same city with the sibling. The second step consisted of sibling relationship quality in childhood, and the third step consisted of sibling relationship quality in adulthood. In the fourth step, the interaction terms between childhood SRQ and gender, adulthood SRQ and gender, childhood SRQ and adulthood SRQ were added to the model. Results can be found in Table 5.

Table 5. Multiple Hierarchical Regression Predicting Best Friendship Quality

Variable	*B*	95% CI for *B*		*SE B*	β	Partial *r*	R^2	ΔR^2
		LL	UL					
Step 1							.14	.14
Participant's gender	-.16***	-.25	-.08	.05	-.23	-.24		
FOC-BF[a]	.19**	.08	.31	.06	.21	.23		
RISC-S[b]	-.11**	-.20	-.03	.04	-.18	-.19		
Step 2							.16	.02
Child SRQ[c]	.18*	.02	.33	.08	.15	.16		
Step 3							.21	.05
Adult SRQ	.26**	.11	.41	.08	.25	.24		
Step 4							.19	.02
Child SRQ x gender	.02	-.37	.41	.20	.009	.008		
Adult SRQ x gender	.29	-.04	.62	.17	.15	.12		
Child SRQ x adult SRQ[d]	.05	-.37	.46	.21	.01	.02		

Note. CI = confidence interval; LL = lower limit; UL = upper limit.
[a]Frequency of contact with the best friend. [b]Residing in the same city with the sibling. [c]Sibling relationship quality. [d]Interaction between sibling relationship quality in childhood and sibling relationship quality in adulthood.
*$p < .05$. **$p < .01$. ***$p < .001$.

The coefficient of the first step of the hierarchical multiple regression was significant with F (3, 209) = 11.27, $p < .001$. In this first step, gender of the participant (β = -.23, t (212) = -.3.62, $p < .001$), frequency of the contact with the best friend (β = .21, t (212) = .3.34, $p < .01$), and residing in the same city with the sibling (β = -.18, t (212) = -.2.72, $p < .01$) had significant contributions to the model with an R^2 of .14. The second model yielded significant results as well, F (4, 208) = 9.90, $p < .001$, and explained a further 2% of the variance in best friendship quality. Third model was also significant with F (5, 207) = 10.76, $p < .001$, and it explained 5% additional variance in best friendship quality. Finally, the last model explained an additional 2% of the variance in friendship quality with F (8, 204) = 7.29, $p < .001$.

When regression coefficients were examined separately for the predictors, demographic variables were significant in all four models. In the second model, child SRQ (β = .15, t (212) = 2.27, $p < .05$) and in the third model, adult SRQ were significant predictors (β = .25, t (212) = 3.47, $p < .01$). However, it is noteworthy that

when adult SRQ was added, sibling relationship quality in childhood was no longer a predictor. In the last model, none of the interactions were significant., showing that the gender of the participant did not interact with sibling relationship quality in predicting the quality of the best friendships.

CHAPTER 5

DISCUSSION

The present study aimed to examine the link between the quality of sibling relationships in childhood, the quality of sibling relationships in adulthood, and the quality of the current relationship with the best friend. More specifically, it aimed to understand whether the interplay between these relationships of emerging adults in Turkey supports carryover, compensation, or segmentation models. In this direction, the link between relationship quality with the same-gender best friend and the quality of the relationship with the sibling closest in age to the participant was analyzed. Life-Span Sibling Relationship Quality Scale (Riggio, 2000) and McGill Friendship Questionnaire - Friend's Functions (Mendelson & Aboud, 1999) were used for this purpose. In the upcoming sections, the results of the study will be summarized and discussed in light of the literature.

5.1 Discussion of the findings

5.1.2 Demographic variables and friendship quality

In this section, the results of preliminary analyses conducted with demographic variables will be presented. However, the ones that appeared significant in preliminary analyses and then included in regression models will be explained and discussed in the next section.

Several studies in the literature showed evidence for age-related changes in the quality of friendships. According to the literature, friendships become more supportive (De Goede et al., 2009) and more intimate after adolescence (Hamwey et

al., 2019). In the current study, no associations between the friendship quality and the participant's age could be found, presumably because of the restricted age range. If the age limit were broader in a way that includes different developmental periods such as childhood, adolescence, or older adulthood, friendship quality might have changed related to age.

Turning to birth order, friendship quality differed neither by the birth order of the participant among all siblings nor by the birth order concerning the target sibling. For this reason, birth order was not included in the regression analysis as a predictor or moderator. Previous research presented contradictory results on the birth order effect. Several studies found it to be linked to certain aspects of friendship quality (Lam et al., 2021; Salmon et al., 2003). On the other hand, others found no such relationship. For example, Simanko and colleagues (2020) failed to find a birth order effect on one's perception of their friends, although in Salmon and colleagues' study (2003), middleborns showed more positive attitudes towards friends. The lack of such a relationship found in the current study might be related to the sample's developmental stage. Sulloway (2001) proposed that birth order appoints different characteristics for each child which helps them maximize parental love and investment they receive. With the help of the birth order differences, all siblings find their unique place in the sibling matrix, and develop different characteristics based on their birth order. In other words, the birth order effect occurs because siblings in different birth positions cope differently with sibling competition for parental interest. It is demonstrated in the literature that this type of competition among siblings diminishes with age (Kim et al., 2006; Stewart et al., 2001). Stewart and colleagues (2001) displayed that the sibling competition is highest in late adolescence, less in early adulthood, and lowest in middle and late adulthood.

Therefore, with the diminish in sibling competition, birth order difference might have decreased as well, as the difference it offers is might not be as necessary as in childhood. Another explanation for the lack of a birth order effect might be the restricted age difference between siblings in the current study. With broader age difference, the older siblings might serve as caregivers for younger siblings (Cicirelli, 1994) or as role models (Updegraff et al., 2002), which could have resulted in different types of associations between sibship and friendship qualities based on birth order. For instance, younger siblings could have been more affected by their wiser older siblings to whom they attribute parent-like features, and their sibling relationships could have more strongly predicted the best friendship quality. Since we limited the age difference between the participant and the target sibling, the birth order effect on the association we investigated might have become undetectable. Additionally, for people in emerging adulthood, the five years age difference might be less critical than in childhood. In childhood years, a 5-year age difference from a sibling might lead to significant differences in the amount of social experience. While the younger sibling has just managed to walk, the older one may have already met peers in kindergarten. Or when the younger one has just started school, the older one may already have classmates of several years. All taken into consideration, their relationships with peers could have been affected by the birth order if the participants were younger or if their age difference from the siblings was higher.

The number of siblings did not show significant associations with the quality of best friendships in this sample. The small number of siblings in the sample might explain the lack of significant difference. The participants with the highest number of siblings had four, and these participants were only 3.8% of the sample. No studies in

the literature investigated the link between sibship size and friendship quality, at least to the author's knowledge. Therefore, no comparisons to prior research can be made.

The current study's findings did not provide evidence for a difference between the friendship qualities of those who reside in the same city with their best friend and who do not. However, those who live in different cities from their siblings had higher-quality best friendships. The contribution of this variable will be reviewed in the next chapter.

5.1.3 Predictors of best friendship quality and the moderating role of gender

Preliminary analysis revealed a continuity in sibling relationship quality from childhood to adulthood, as these variables correlated significantly and positively. Pearson's correlations revealed a positive and significant association between childhood sibling relationship quality and current friendship quality. Furthermore, sibling relationship in adulthood was also positively linked with current friendship quality.

When the predictors of the quality of the relationship with the best friend were examined, results of the multiple hierarchical regression showed that gender, frequency of contact with the best friend, residing in the same city with the sibling, and adulthood SRQ predicted friendship quality in all steps. In response to the research question of this study, higher sibling relationship quality in childhood and adulthood corresponded to a better relationship with the best friend, regardless of the gender and how frequently they interact with that friend. However, among two SRQ measures, adulthood SRQ was more predictive of best friendship quality. Still, the findings yielded support for the carryover model. Additionally, those who interact

with their best friends more often experience higher relationship quality with those friends. Furthermore, the interaction of gender with childhood and adulthood sibling relationship quality was also nonsignificant. In the following paragraphs, these results will be discussed in light of the theoretical framework of the research questions.

In the present study, a gender difference emerged in the best friendship quality among emerging adults. The independent samples t-test revealed that women rated their best friend relationships as higher in quality than men did. Furthermore, gender significantly predicted friendship quality in the presence of all other variables. Literature repeatedly demonstrated a gender difference in friendship quality, with emerging adult women reporting higher quality friendships than men (Demir & Orthel, 2011; King & Terrace, 2008). Sümer (2015) demonstrated in a Turkish cultural context that girls' friendship quality was higher than boys' and involved lower conflict. Our results were consistent with the findings in the literature, providing cross-cultural validation of gender effect for this important variable in an emerging adulthood sample.

Considering the frequency of contact, our results revealed that it is a significant predictor of friendship quality. Meaning that more contact with the best friend was related to better relationship quality. Similar to our findings, Chen and Feeley (2014) found that support received from friends was correlated with the frequency of contact with them for adults over 50 years. Roberts and Dunbar (2011) found similar results for kin and friend relations, showing that more emotional closeness was predicted by the shortest interval from the last interaction with that person. Thus, our findings were in accord with the existing research.

As noted earlier, participants who live in different cities from their siblings reported better best friendship quality than others even when other variables are controlled. At first glance, this result might come as unexpected. However, in Stewart and colleagues' study (2001), participants who scored highest in sibling competition were the ones who shared the same house with the target sibling. We also know from the evolutionary psychology literature that sharing the same resources is associated with increased sibling competition (Sulloway, 2001). Therefore, not living in the same city might have affected sibling relationship quality positively, and this way increased friendship quality. When an additional independent samples t-test was run, a trend was observed that shows better sibling relationship qualities of those who live in a different city from the target sibling, although this difference was not significant ($p = .06$). An additional explanation for this finding might be a case of compensation. Specifically, those who cannot easily access their siblings might be more eager to develop closer relationships with their best friends. Therefore, friendship quality might be compensatory for the inaccessibility of the sibling, although not compensatory for the sibling relationship quality.

In an attempt to explain the main research topic of this study, namely the link between sibling and best friend relationships, researchers have proposed two models so far. The carryover model assumes that the quality of sibling relationships positively predicts the quality of friendships (Lam et al., 2021; Roskam et al., 2015; Yeh and Lempers, 2004). Conversely, the compensation model proposes a negative relationship (Mendelson et al., 1994; Stocker & Dunn, 1990). According to this latter model, worse sibling relationships result in better friendships in order to balance out the adverse impact of sibling relationships, or sibling relationships play a

compensatory role over friendships. Having explained these two models, our results supported the former, as better sibling relationship quality positively predicted friendship quality. This result will be interpreted through the cultural context and developmental phase of the study sample.

With regard to the cultural context, the results of the current study can be understood as a reflection of the importance of family bonds in Turkish culture. It is a relatedness oriented culture that differs from more individualistic societies, valuing emotional interdependence between family members (Kağıtçıbaşı, 2005; Mayer et al., 2012). In comparison between native Dutch and Turkish immigrants in Netherlands, Turkish adults reported higher sibling relationship quality, more frequent contact, and more sibling support, and also more conflict (Voorpostel & Schans, 2011). Compared to all other immigrants and Dutch respondents, male respondents with Turkish background interacted more often with their brothers. The findings of our study, together with the above mentioned research, indicate that sibling relationships are impactful on Turkish emerging adults' relations with nonsibling peers. The carryover effect that was supported by the findings of the current study is consistent with the literature on the significance of family bonds in Turkish culture.

Although sibling relationship quality in childhood predicts best friendship quality, its effect is suppressed by sibling relationships in adulthood. Our findings, therefore, yielded evidence for a carryover effect from sibling relationships in childhood to best friend relationships today, controlling for the participant's gender, frequency of contact with best friend, residing in the same city with the friend, but the adulthood SRQ was more predictive. It can be concluded that current sibling relationship quality is more explanatory of current friendship quality and the

carryover effect from childhood sibling to current friend relationship quality does not go beyond the effect of today's friendships. It might be the case that adulthood SRQ both carries the effect of how the sibling relationship was in the childhood, and also adds on it. A plausible interpretation of this would be in the context of the sample's developmental stage. In the literature, several studies showed that sibling relationships become more voluntary from adolescence to young adulthood (Hamwey et al., 2019; Whiteman et al., 2011). Along with that, studies consistently demonstrated reduced sibling conflict from adolescence to emerging adulthood (Stewart et al, 2011) and an increase in closeness (Scharf et al., 2005). It can be concluded that while siblings start to find their own paths by moving out of the family home, building long-term romantic relationships, and careers as a result of entering emerging adulthood (Arnett, 2004), the frequency of involuntary contact with siblings decreases and this leads to a diminish in conflict as well as an increase in intimacy. In other words, siblings become more friend-like (Hamwey et al., 2019; Stauffacher & DeHart; 2006). Considering this point of view, it is understandable that a relationship with the sibling resembles more of a friendship than in childhood, where sibling relationships involve high conflict (Dunn, 1988; Furman & Buhrmester, 1985; Kramer, 2010). Considering the fact that studies showing support for compensation model were mainly conducted with children (Mendelson et al., 1994; Stocker & Dunn, 1990), compensatory patterns might be observed among younger samples where high sibling conflict is abundant. On the other hand, sibling and friend relations might become more congruent in later developmental stages marked by lower conflict and higher warmth in sibling relations. Although a positive moderate relationship was found between childhood and adulthood sibling

relationships, the conflict aspect of this relationship might have slightly decreased over time.

5.2 Implications of the present study

The role of parenting and parent-child relationships on extrafamilial social ties have been well-documented in the literature, but the impact of sibling relations is less understood. The results of this study pointed out sibling relations as significant predictor of peer relations, in spite of the small effect size. Since the relationships with siblings and best friends contribute to psychological well-being (Graham & Coplan, 2012; Milevsky, 2005; Demir et al., 2007; Raboteg-Saric & Sakic, 2014), comprehending this association was critical to provide insight into ways to improve well-being, especially for this population.

Friend relationships are essential means of social support. Friends function as a resilience factor through the social support they provide, and ameliorate well-being (Chen & Feeley, 2014; Snapp et al., 2015). Higher companionship and lower conflict perceived in friendships predict higher social support, which contributes to the psychological well-being (Bakalım & Taşdelen-Karçkay, 2016).

Existing research illustrated the predictor role of friendship quality on various well-being variables (Rubin et al., 2004; Sümer, 2015). Sümer (2015) showed that friendship quality predicted life-satisfaction of Turkish children, even after attachment dimension (i.e., avoidance and anxiety) was controlled. In another research, friendship quality appeared to be buffering the negative impact of low mother support on internalizing problems of girls, in addition to directly predicting psychosocial adjustment variables for girls and boys (e.g., self-worth, social competence, and externalizing problems) (Rubin et al., 2004). Deducing from these studies, it can be concluded that relationship quality with parents predicts friendship quality, which in turn predicts well-being. Furthermore, sibling relationship quality might mediate the link between the relationships to parents and friends (Roskam et

al., 2015). Additionally, in emerging adulthood, those who experience high best friend relationship quality have higher self-esteem even though they have conflictual relationships with romantic partners (Camirand & Poulin, 2022). Considering above mentioned findings, early interventions to strengthen sibling relationships might be critical for future peer relations to balance out the detrimental effects of impaired parent-child bonds or romantic relationships on well-being.

Current study indicated that relationship with siblings in adulthood is more predictive of best friendship quality than relationship with siblings in childhood. This points out the potential benefit of intervention programs targeting sibling bonds before emerging adulthood. When the demographic characteristics of the sample were reviewed, it was observed that all of the participants were undergraduate students. This population is known to experience lower levels of well-being, especially in the early years of college (Conley et al., 2014). Additionally, the sample of the study consisted of unmarried students. Literature shows that single people socialize more with siblings and friends than married people (Sarkisian & Gerstel, 2016). For these reasons, especially for single emerging adults, the contribution of high-quality relationships with peers might be more impactful in psychological adjustment.

5.3 Strengths of the study

This study was one of the first studies that investigated the quality of emerging adults' relationships with a best friend in relation to their childhood and adulthood sibling relationship qualities, in a Turkish emerging adulthood sample. In spite of the existing research conducted in Western cultures, there was a gap in the literature on

this specific link. For this reason, the present study sheds new light on the intimate relationships of emerging adults in a Turkish context.

Another strong aspect of this study is limiting the age difference between the siblings. By this means, it aims to make sure that the relationship with a sibling is more or less a relationship among equals. More age differences might have brought new dynamics, such as the caregiving role for older siblings.

5.4 Limitations of the study and recommendations for future work

First, the effect size of the sibling relationship in childhood and adulthood as predictors of friendship quality was quite small (R^2 = .07). However, it was a similar effect size to what was reached in the literature on the related variables (Benson et al., 2006; Dryburgh et al., 2021).

Additionally, the study sample was composed of unmarried university students who were enrolled in introductory psychology courses. For this reason, it is a highly educated sample that might not represent the emerging adult population in Turkey. However, these findings can be interpreted in their own context and used to understand the educated and single emerging adult population in Turkey.

Since otherwise was not possible, childhood sibling relationship quality was measured via retrospective self-report measures. The real dynamics of the sibling bond in childhood might have been slightly altered and the ratings might not be as accurate as adulthood ratings. However, for practical reasons, a retrospective self-report measure was chosen to assess this variable.

In previous research, temperament and personality features were frequently found related to the quality of friend relationships (Gözü, 2016; McCoy et al., 2002; Pike & Atzaba-Poria, 2003). None of these factors were examined in the present

study. Future studies can be designed in a way to control these factors or analyze their mediating/moderating roles in the link between sibling and friend relationship qualities of emerging adults. Research also yielded evidence for a carryover effect from parent-child relationship quality to friend relationships (McElwain et al., 2007; Sümer, 2015; Özen et al., 2011); therefore the quality of relationship with parents can be controlled in the future work as well to assess its contribution to the link between sibling and friend relationship quality.

There is strong evidence for an association between well-being and sibling relationships (Alabucak-Cinalioğlu & İşmen-Gazioğlu, 2022; Milevsky, 2005) as well as friend relationships (Demir et al., 2012; Demir & Davidson, 2013; Demir & Özdemir; 2010; Demir et al., 2013). Current study focused on the interplay between sibling and friend relationships, but future research should also focus on the joint and unique effects of the qualities of sibling and best friend relationships on various aspects of well-being, such as happiness, life satisfaction, and quality of life. It would allow a broader examination by revealing suppressing or buffering effects of these intimate relationships on well-being.

APPENDIX A

ETHICAL APPROVAL FORM

Evrak Tarih ve Sayısı: 27.11.2021-40499

T.C.
BOĞAZİÇİ ÜNİVERSİTESİ
SOSYAL VE BEŞERİ BİLİMLER YÜKSEK LİSANS VE DOKTORA TEZLERİ ETİK İNCELEME KOMİSYONU
TOPLANTI KARAR TUTANAĞI

Toplantı Sayısı	:	24
Toplantı Tarihi	:	24.11.2021
Toplantı Saati	:	14:00
Toplantı Yeri	:	Zoom Sanal Toplantı
Bulunanlar	:	Prof. Dr. Ebru Kaya, Prof. Dr. Fatma Nevra Seggie, Dr. Öğr. Üyesi Yasemin Sohtorik İlkmen
Bulunmayanlar	:	

Asya Alıcı
Psikoloji

Sayın Araştırmacı,

"An Exploratory Study on the Link Between Sibling Relationships and Friendship Quality" başlıklı projeniz ile ilgili olarak yaptığınız SBB-EAK 2021/77 sayılı başvuru komisyonumuz tarafından 24 Kasım 2021 tarihli toplantıda incelenmiş ve uygun bulunmuştur.

Bu karar tüm üyelerin toplantıya çevrimiçi olarak katılımı ve oybirliği ile alınmıştır. COVID-19 önlemleri kapsamında kurul üyelerinden ıslak imza alınamadığı için bu onay mektubu üye ve raportör olarak Fatma Nevra Seggie tarafından bütün üyeler adına e-imzalanmıştır.

Saygılarımızla, bilgilerinizi rica ederiz.

Prof. Dr. Fatma Nevra SEGGIE
ÜYE

e-imzalıdır
Prof. Dr.Fatma Nevra SEGGIE
Raportör

SOBETİK 24 24.11.2021

Bu belge 5070 sayılı Elektronik İmza Kanununun 5. Maddesi gereğince güvenli elektronik imza ile imzalanmıştır.

APPENDIX B

PERSONAL INFORMATION FORM

1. Yaşınız:

2. Cinsiyetiniz:

3. Eğitim durumunuz?
   - Lisans öğrencisi
   - Yüksek Lisans öğrencisi
   - Doktora öğrencisi

4. Medeni durumunuz?
(Evli iseniz) Ne kadar zamandır evlisiniz?

5. Kaç kardeşsiniz?

6. Şu anda kardeşinizle aynı şehirde mi yaşamaktasınız?
   - Evet
   - Hayır

7. Kardeşinizle ortalama ne sıklıkta iletişim kurarsınız? (yüz yüze görüşmek, telefonda konuşmak ya da mesajlaşmak dahil):
   - Her gün birkaç kere
   - Her gün bir kere
   - Haftada birkaç kere
   - Haftada bir gün
   - Ayda birkaç kere
   - Ayda bir kere
   - Yılda birkaç kere
   - Birkaç yılda bir kere
   - Daha nadir
   - Hiç

8. Kardeşinizle kurduğunuz iletişimin yüzdesel olarak ne kadarının yüz yüze gerçekleştiğini belirtiniz.

9. Kardeşinizle yaşamınızın hangi dönemini aynı evde geçirdiniz? (Birden çok yanıt verebilirsiniz.)

- Şu an dahil her zaman
- Erken çocukluk (ilkokul öncesi)
- İlkokul
- Ortaokul
- Lise
- Üniversite
- Şu an
- Hiç
- Diğer

10. Kardeşinizle yaşamınızın toplamda kaç yılını aynı evde geçirdiniz?

11. Kardeşinizin yaşı:

12. Kardeşinizin cinsiyeti:

13. Şu anda arkadaşınızla aynı şehirde mi yaşamaktasınız?
- Evet
- Hayır

14. Arkadaşınızla ortalama hangi sıklıkta iletişim kurarsınız? (yüz yüze görüşmek, telefonda konuşmak ya da mesajlaşmak dahil):
- Her gün birkaç kere
- Her gün bir kere
- Haftada birkaç kere
- Haftada bir gün
- Ayda birkaç kere
- Ayda bir kere
- Yılda birkaç kere
- Birkaç yılda bir kere
- Daha nadir
- Hiç

15. Arkadaşınızla kurduğunuz iletişimin yüzdesel olarak ne kadarının yüz yüze gerçekleştiğini belirtiniz.

16. Arkadaşınızın yaşı:

17. Arkadaşınızın cinsiyeti:

18. Kaç kardeşiniz var? (Kendiniz dışındaki kardeş sayısını yazınız.)

19. Kardeşlerinizin yaşları ve cinsiyetleri:

20. Ebeveynlerinizin kaçıncı çocuğusunuz?

21. Annenizin;
Eğitim durumu:
Mesleği (emekliyse, çalışıyorken yaptığı iş):

22. Babanızın;
Eğitim durumu:
Mesleği (emekliyse, çalışıyorken yaptığı iş):

23.



Yukarıdaki merdivenin Türkiye'de insanların ekonomik olarak bulunduğu konumları temsil ettiğini düşünün. Merdivenin en üst basamağında ekonomik olarak en iyi durumda olan yani en yüksek kazançlı mesleklere sahip kişiler var. Merdivenin en alt basamağında ise; ekonomik olarak en kötü durumda olanlar yani, en düşük kazanç seviyesindeki mesleklere sahip kişiler ya da işsizler var. Merdivende ne kadar üst basamaktaysanız, en iyi durumda olan kişilere o kadar yakınsınız, merdivende ne kadar alt basamaktaysanız, en kötü durumda olan kişilere o kadar yakınsınız demektir.
Kendinizi bu merdivenin hangi basamağına konumlandırırdınız? Lütfen yaşamınızın bu döneminde Türkiye'deki diğer insanlara kıyasla kendinizi merdivenin hangi basamağında gördüğünüzü, o basamağı temsil eden sayıyı aşağıdaki ölçekte işaretleyerek belirtiniz.

- 1
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- 10

24.



Yukarıdaki ibareyi dikkate alarak, bugünden baktığınızda, büyürkenki ailenizi bu merdivenin hangi basamağına konumlandırırdınız? Lütfen bugünden bakınca yaşamınızın o döneminde Türkiye'deki diğer insanlara kıyasla ailenizi merdivenin hangi basamağında gördüğünüzü, o basamağı temsil eden sayıyı aşağıdaki ölçekte işaretleyerek belirtiniz.

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APPENDIX C

MCGILL FRIENDSHIP QUESTIONNAIRE – FRIEND'S FUNCTIONS (MFQ-FF)

Bu bölümdeki maddeler, en yakın arkadaşınızın sizinle olan ilişkisinde nasıl bir arkadaş olduğuyla ilgilidir. Lütfen aşağıdaki soruları, **sizinle aynı cinsiyetteki en iyi arkadaşınızı** göz önüne alarak yanıtlayınız. Bunun için 0-8 arasında değişen ölçek aralıklarını kullanınız.

	0 (Asla)	1	2 (Nadiren)	3	4 (Arada bir)	5	6 (Oldukça)	7	8 (Her zaman)
1. Eğlenceli şeyler yapmakla ilgili iyi fikirleri vardır.									
2. Beni güldürür.									
3. Onunla konuşmak heyecan vericidir.									
4. Onunla beraber olmak heyecan vericidir.									
5. Oturup sohbet etmek eğlencelidir.									
6. İhtiyaç duyduğum zaman bana yardım eder.									
7. Bana bazı şeyleri yapmamda yardımcı olur.									
8. İhtiyacım olan şeyleri bana ödünç verir.									
9. Bir şeyleri bitirmekte zorlandığımda bana yardımcı olur.									
10. Bana bazı şeyleri nasıl daha iyi yapacağımı gösterir.									
11. Üzgün olduğum zaman bunu bilir.									
12. Sırlarımı anlatabileceğim birisidir.									
13. Bazı şeyler canımı sıktığı zaman bunu bilir.									
14. Özel konular hakkında kolayca konuşabileceğim birisidir.									

15. Özel konuları anlatabileceğim birisidir.									
16. Birbirimizi bir kaç ay görmesek bile benim arkadaşım olarak kalacaktır.									
17. Kavga etsek bile benimle arkadaşlığını devam ettirmek isteyecektir.									
18. Başkaları beni eleştirse bile benimle arkadaş kalacaktır.									
19. Başkaları beni beğenmese bile benimle arkadaş kalacaktır.									
20. Tartışsak bile benim arkadaşım olarak kalacaktır.									
21. Kendimi onun yanında akıllı/zeki hissederim.									
22. Kendimi onun yanında özel hissederim.									
23. İyi bir şeyler yaptığımda beni över.									
24. Başarılı olduğum şeyleri vurgular.									
25. Bana bazı şeyleri iyi yapabileceğimi hissettirir.									
26. Yeni/farklı bir ortamda beni rahat hissettirecektir.									
27. Korktuğum zamanlarda etrafımda olması iyi olur.									
28. Endişelendiğim zaman beni iyi hissettirecektir.									
29. Sinirlendiğim zaman beni sakinleştirecektir.									
30. Üzgün olduğum zaman beni iyi hissettirecektir.									

APPENDIX D

LIFE-SPAN SIBLING RELATIONSHIP SCALE (LSRS)

Bu ölçekte kardeşinizle ilgili ifadeleri okuyacaksınız. Lütfen aşağıdaki soruları, **yaşı size en yakın olan kardeşinizi** düşünerek cevaplayınız. Kardeşinizle ilişkinizi ifade eden her bir maddeye ne kadar katılıp katılmadığınızı cevaplayınız.

	Tamamen katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Tamamen katılıyorum
1. Kardeşim beni mutlu eder.					
2. Kardeşimin duyguları benim için önemlidir.					
3. Kardeşimle olan ilişkimden keyif alırım.					
4. Kardeşimle gurur duyuyorum.					
5. Kardeşimle birlikte çok eğleniriz.					
6. Kardeşim beni çoğunlukla çok kızdırır.					
7. Kardeşime hayranım.					
8. Kardeşimle zaman geçirmekten hoşlanırım.					
9. Kardeşimle halen çok zaman geçiriyorum.					
10. Kardeşimi çok sık telefonla ararım.					
11. Kardeşimle sırlarımızı paylaşırız.					
12. Kardeşimle birlikte birçok şey yaparız.					
13. Kardeşimle problemlerim hakkında asla konuşmam.					
14. Kardeşimle birbirimizden birçok şeyi ödünç alırız.					
15. Kardeşimle birlikte dışarıya çıkarız.					
16. Kardeşim bana kişisel problemlerini anlatır.					
17. Kardeşim iyi bir arkadaş.					

18. Kardeşim yaşamımda çok önemli.					
19. Kardeşimle çok yakın değiliz.					
20. Kardeşim en iyi arkadaşlarımdan birisidir.					
21. Kardeşimle birçok ortak noktamız var.					
22. Kardeşim için çok önemli olduğuma inanıyorum.					
23. Kardeşimin en iyi arkadaşlarından biri olduğumu biliyorum.					
24. Kardeşim benimle gurur duyar.					
25. Çocukluğumuzda kardeşim beni rahatsız ederdi.					
26. Çocukluğumuzda kardeşimi çok sevdiğimi hatırlıyorum.					
27. Çocukluğumuzda kardeşim beni çok mutsuz ederdi.					
28. Çocukluğumuzda kardeşim çoğu zaman beni çok kızdırırdı.					
29. Çocukluğumuzda kardeşimle gurur duyardım.					
30. Çocukluğumuzda kardeşimle keyifli zaman geçirirdim.					
31. Çocukluğumuzda kardeşimle çok yakın olduğumuzu hatırlıyorum.					
32. Çocukluğumuzda kardeşimle çok eğlendiğimizi hatırlıyorum.					
33. Çocukluğumuzda genellikle kardeşimle aynı arkadaşlara sahiptik.					
34. Çocukluğumuzda kardeşimle sırlarımızı paylaşırdık.					
35. Çocukluğumuzda kardeşimle birbirimize yardım ederdik.					
36. Çocukluğumda kardeşim bana (ya da ben kardeşime) bakardı.					
37. Çocukluğumuzda kardeşimle birlikte sık sık oyun oynardık.					
38. Çocukluğumuzda kardeşimle birlikte çok fazla zaman geçirmezdik.					
39. Çocukluğumuzda kardeşimle okul sonrası birlikte zaman geçirirdik.					
40. Çocukluğumda kardeşime problemlerimle ilgili konuşurdum.					
41. Çocukluğumuzda kardeşim ile ben çok yakın dosttuk.					

42. Çocukluğumuzda kardeşim benimle oyun oynamaktan hoşlanmazdı.					
43. Çocukluğumuzda kardeşim ile ben çok yakındık.					
44. Çocukluğumuzda kardeşim ile ben birbirimiz için çok önemliydik.					
45. Kardeşimin çocukluğumda önemli ve olumlu bir etkisi vardı.					
46. Çocukluğumuzda kardeşim benimle ilgili her şeyi bilirdi.					
47. Çocukluğumuzda kardeşimle ben aynı şeylerden hoşlanırdık.					
48. Çocukluğumuzda kardeşimle bir çok ortak noktamız vardı.					

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