Adolescent Disclosure and Secrecy Behaviors and Psychological Well-Being

in Parent and Best Friend Relationship Contexts: Variable- and Person-Centered

Examinations

Safiye Ebra Uraloğlu

Özyeğin University

January 2017

Adolescent Disclosure and Secrecy Behaviors and Psychological Well-Being

in Parent and Best Friend Relationship Contexts: Variable- and Person-Centered

Examinations

by

Safiye Ebra Uraloğlu

A Thesis Submitted to the

Graduate School of Social Science

In Partial Fulfillment of the Requirements for

The Degree of

Master of Arts

in

Psychology

Özyeğin University

January 20

Özyeğin University

Graduate School of Social Sciences

The thesis of Safiye Ebra Uraloğlu

has been approved by:

Assist. Prof. Ayfer Dost Gözkân
(Thesis Advisor)

_____

Assoc. Prof. Nilüfer Kafescioğlu

_____

Assist. Prof. Neslihan Arıcı Özcan
(External Member)

_____

Date: 18. 01. 2017

ABSTRACT

The present study examined adolescents' disclosure and secrecy behaviors in their close relationships and their psychological well-being (life satisfaction, problem-solving confidence, and (lower) trait anxiety). In a sample of 1232 adolescents (ages 11-19 years; 60.1 % girls), disclosure and secrecy across three relationship contexts were examined by variable- and person-centered approaches. With a variable-centered approach, the study examined the links between disclosure to and secrecy from mother, father and best friend and psychological well-being using structural equational modeling (SEM) analysis. Results of SEM showed that higher disclosure and lower secrecy levels were related with higher psychological well-being. More specifically, variable-centered analysis results showed that higher disclosure and lower secrecy in relationship with father predicted better psychological well-being. Disclosure to and secrecy from mother were not found as much effective as the father in the model. Results did not support the relation between secrecy from best friend and well-being but high disclosure to best friend predicted higher well-being. With a person-centered approach, the study investigated adolescents' disclosure and secrecy behaviors in their relationships with their mother, father and best friend through clusters. Cluster analysis yielded patterns in which adolescents share information with or keep secret from their parents which differ in levels of psychological well-being. The best friend-adolescent cluster was found to be significantly related to psychological well-being but the relation was weaker as compared to other clusters' relationship with psychological well-being indices. Findings are discussed by synthesizing the information yielded by variable- and person-centered analyses.

Keywords: disclosure, secrecy, parents, friendship, adolescent psychological well-being, person-centered analysis, variable-centered analysis

ÖZET

Bu çalışma ergenlerin yakın ilişkilerindeki bilgi paylaşımı ve sır saklama davranışları ile psikolojik esenlik hallerini (yaşam doyumu, problem çözme becerisine olan güven ve sürekli kaygı) durumlarını incelemiştir. Çalışmada, 1232 ergenin (11-19 yaş; %60.1 kız) üç farklı ilişki bağlamında bilgi paylaşımı ve sır saklama davranışlarını birey-odaklı ve değişken-odaklı yaklaşımlar kullanılarak incelenmiştir. Değişken-odaklı yaklaşımda anne, baba ve yakın arkadaş ile bilgi paylaşımı ve anneden, babadan, ve en yakın arkadaştan sır saklama davranışı ile psikolojik esenlik hali arasındaki ilişki yapısal eşitlik modeli (SEM) analizi ile incelemiştir. SEM analizi sonuçları yüksek bilgi paylaşımı ve düşük sır saklamanın yüksek psikolojik esenlik hali ile bağlantılı olduğunu göstermiştir. Daha detaylı olarak, değişken-odaklı analiz sonuçları baba ile bilgi paylaşımının ve babadan sır saklamanın psikolojik esenlik halini yordadığını göstermiştir. Bu modelde anne ile bilgi paylaşımı ve anneden sır saklama baba ile olduğu kadar etkili bulunmamıştır. Sonuçlar en yakın arkadaştan sır saklama ve esenlik hali arasındaki ilişkiyi desteklememiştir ancak en yakın arkadaş ile bilgi paylaşımı yüksek esenlik halini yordamaktadır. Çalışmada birey-odaklı yaklaşımla kümeleme analizi aracılığıyla ergenlerin anne, baba ve en yakın arkadaşları ile bilgi paylaşımı ve sır saklama davranışları araştırılmıştır. Birey-odaklı yaklaşımda, kümeleme analizi aracılığıyla ergenlerin anne, baba ve en yakın arkadaşları ile bilgi paylaşımı ve sır saklama davranışları araştırılmıştır. Kümeleme analizi ergenlerin psikolojik esenlik hali seviyeleri bakımından farklılık gösteren ebeveynler ile bilgi paylaşma ve sır saklama örüntülerini ortaya koymuştur. Yakın arkadaş-ergen kümesi ile psikolojik esenlik hali arasındaki ilişki anlamlı bulunmuştur ancak bu ilişki psikolojik esenlik hali ile ilişkili olan diğer kümelere oranla daha zayıftır. Bulgular birey- ve değişken-odaklı yaklaşım analizleri sentezlenerek tartışılmıştır.

Anahter kelimeler: bilgi paylaşımı, sır saklama, ebeveyn, arkadaşlık, ergenin psikolojik

esenliği, birey-odaklı yaklaşım, değişken-odaklı yaklaşım

ACKNOWLEDGEMENTS

First of all, I would like to express my deep gratitude to my supervisor Dr. Ayfer Dost Gözkan for the support, guidance, and motivation she provided me during my thesis and my master. She was very generous with her time and knowledge. I've learned a lot from her and it was a great opportunity to work with her.

I would like to thank my thesis committee members Dr. Nilüfer Kafescioğlu and Dr. Neslihan Arıcı Özcan for their kindly acceptance of being members and valuable suggestions on this study. I also thank Dr. Asiye Kumru for her believing in me from the very beginning of this process. Her support and guidance for this process have been motivated me to keep working.

I should express my sincere thanks to my mentors Mehmet Dinç and Ayşenur Dinç. Words are not enough to describe my appreciation for their interest, care and support during my thesis and master years. Also, I especially thank Mohamed El Sharnouby, Pınar Şengül, and Beliz Canlı for their generous help and valuable contributions to my work.

I would like to thank my family for their encouragement and support entire my life. But especially I should thank my lovely sister for her interest in my thesis and the process, and my brother for doing his best at being a great flat-mate and making things easier for me.

Last but not least, I owe my grateful thanks to my best friend Merve Nur Ocaklı for shaping my research interest via her contributions, shares, and emotional support for me since our high school years.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1

INTRODUCTION

Disclosure and secrecy literature emerged from the core idea that parents' information about their adolescent's life is essential for adolescent's development. This is important in two aspects. First, it is found that when parents have more information about adolescents' lives, adolescents show less problem behavior (i.e. externalizing behaviors, juvenile delinquency, substance use) as parents can provide behavioral control (Barber, Olsen, & Shagle, 1994). Also, parents can protect and keep their adolescents safe, and track their adaptation to social norms and values (Smetana & Chuang, 2001) when they have information about their adolescents' lives. Second, high parental knowledge is a sign of high-quality parent-child relationship (Kerr & Stattin, 2000).

The major challenge is that; during adolescence, privacy increases in the adolescents' personal life (Tilton-Weaver & Marshall, 2008), and they spend a greater amount of time out of the home and away from parents (Csikszentmihalyi & Larson, 1984). This means that parents know less about their adolescent's life and should rely on his/her statements about their lives. As a result, it is not easy to gain information about their whereabouts while also showing respect to their privacy and autonomy, as compared to the times they were still children.

Before Stattin and Kerr's study (2000), parental monitoring was seen as the primary source of the parents' knowledge about adolescents' outside life. It was defined as "a set of correlated parenting behaviors involving attention to and tracking of the child's whereabouts, activities, and adaptations" (Dishion & McMahon, 1998, p. 61). It was taken as an action of parents to get information from adolescents about their friends, outside

activities, and where they are. In other words, it was seen as parents' duty to gain information about adolescent's life via monitoring them.

The research on adolescents' disclosure and secrecy behavior in the relationship with their parents emerged from this understanding of parental monitoring. Stattin and Kerr (2000) switched the research focus from parents' knowledge (i.e. how much they know about their children's activities) to the action (i.e. how parents get the knowledge). Their study showed that child disclosure is the most important source of parents' knowledge. These findings were the turning point of monitoring literature. After that adolescent disclosure and secrecy, literature started to shaped, and studies began to focus on the concepts and factors that are related to them.

The purpose of the present study was to contribute the disclosure and secrecy literature by examining the links between disclosure and secrecy behaviors of adolescents, and positive development indices (life satisfaction, trait anxiety, and problem-solving confidence) using the person-centered and variable-centered analyses methods. In the present study, the disclosure and secrecy behaviors are handled as two different concepts and examined in three close relationship contexts; adolescent-father, adolescent-mother, and adolescent-best friend relationships. Literature developed on mostly mother-child relationship context (e.g. Almas, Grusec, & Tackett, 2011; Laird & Marrero, 2010) or both parents as one (e.g. Fletcher, Steinberg, & Williams, 2004; Kerr, Stattin, & Burk, 2010). This necessitates an examination of the adolescent- father and adolescent-best friend relationship contexts. The present study was designed to contribute to filling this gap in the literature by not only focusing on both disclosure and secrecy from the mother but also including father and friendship relations and examining three close relationship contexts in adolescents' lives.

Also, literature mostly focused on the link between problem behaviors and delinquency, and disclosure and secrecy behavior (e.g. Keijsers, Frijns, Branje, & Meeus, 2009; Laird, Marrero, Melching, & Kuhn, 2013b; Laird & Marrero, 2010; Stattin & Kerr, 2000). The present study focused on positive psychological well-being and as positive development indicators, the life satisfaction, trait anxiety, and problem-solving confidence are used to understand the effects of disclosure and secrecy behaviors.

Lastly, the study adopted the person-centered approach besides variable-centered approach to see the gaps in approaches and fill the gaps with each other. As the person-centered analysis rejects the idea of homogeneity of the population and as a result of this assumption, the aim is grouping participants who shared similar patterns of variable relations. The participants in the study were grouped according to their level of disclosure and secrecy in their relationships with their mother, father, and best friend to consider the heterogeneous structure of participants and see the distinction of each particular group across psychological outcome variables.

Chapter 2

LITERATURE REVIEW

2.1 Key Concepts and Theoretical Approaches

2.1.1 Disclosure

Disclosure is defined as 'the process by which one person verbally reveals information about himself or herself (including thoughts, feelings, and experiences) to someone else's by Dindia, Fitzpatrick, and Kenny (1997, p. 388). This can be discussed as revealing a secret (i.e. confession) which is related to the disclosure of unacceptable behaviors, thoughts, or emotions (Georges, 1995). On the other hand, disclosure can be discussed as a broader term and cover extensive self-disclosure about one's life, thoughts or emotions and also the confessions. But the important point is the second version of disclosure does not focus on just negative or traumatic events.

In the present study, disclosure was handled as its second meaning; disclosing about adolescent's life, thoughts, or emotions and did not refer a traumatic or negative event like a confession.

2.1.2 Secrecy

Secrecy means hiding premeditating information from some certain people (Margolis, 1974), actively inhibiting the process of disclosure, which cause burden and stress on the individual. In that way, it is differentiated by merely not disclosing information, which does not require any further effort (Pennebaker, 1989).

Secrets always have a social context, and that's why the general importance of a secret is not about the concealed information, but "the person who keeps secrets" and

"keeping these secrets from whom" (Kelly, 2002). Accordingly, in secrecy, there are at least two people; one secret keeper and one who is supposed not to know the concealed information. For instance, for a teenager smoking might be a behavior that should be concealed from parents, but is shared with friends to be a part of a particular group. At the same time, while smoking is important information to keep as a secret for a teenager, this might not be a secret for an adult. For this reason, secrets are socially bounded and show differences across the people's attribution to the meaning of the secret.

In that manner, we used secrecy as a different concept than non-disclosure. As it might be changed according to the parents, adolescent, and the social environment, this study did not focus on the secret itself; it focused on the level of secrecy from the mother, father, and best friend.

2.1.3 Secrecy vs. Disclosure: As Different Concepts

As an explanation of the concepts is different, theories and the research show that secrecy and disclosure are not simply two ends of a spectrum. Most of the research supports this idea by showing that the results (i.e. effects of disclosure and secrecy) are not basically opposite or negatively correlate with each other all the time. According to Lane and Wagner's (1995) study, while keeping secrets require more cognitive resources and emotional effort, low level of disclosure or non-disclosure do not require extra effort. Also, some factor analyses show that disclosure and secrecy items in the questionnaire are loaded in different factors and thus they are also separated empirically (Larson & Chastain, 1990).

We see that while more secret keeping could be related to more negative outcomes, more disclosure is not always related to less negative outcomes. For instance, in research, physical complaints were found to be positively related to secrecy but not negatively

related to disclosure (Finkenauer, Engels, & Meeus 2002). In another study, researchers found that secrecy predicted depression and delinquency but disclosure was not related to these outcomes (Frijns, Keijsers, Branje, & Meeus, 2010). Almas et al.'s (2011) research findings also support previous findings as it shows that while disclosure is the predictor of positive stress coping (e.g., by problem-solving or seeking social support), secrecy is the predictor of negative stress coping (e.g., by distancing themselves from the problem, feeling sorry for themselves, or becoming angry). On the other hand, some other research shows that these two concepts are significantly and negatively related (Smetana, Metzger, Gettman, & Campione-Barr, 2006).

Sharing more does not mean that adolescents do not have secrets or vice versa. People can share some parts of their life and keep some other parts as secrets. Laird and Marrero's (2010) research has shown that adolescents use information management strategies (i.e. telling all, telling if asked, keeping secrets, lying, and omitting details) about media use and free time activities rather than their activities with friends. They can share some part of their lives with only one parent, and some other parts of their lives only with friends. Smetana, Villalobos, Rogge, and Tasopoulos-Chan's (2010) research, which used daily diary method for 14 days, showed that there could be variance in secrecy from parents. According to the study, adolescents keep more secrets about personal activities than others. Their secrecy level with mother changed significantly across the study without the effects of relationship quality and amount of spending time on particular days.

Lastly, Uysal, Lin and Knee (2010) aimed to find out empirical evidence for the distinction between disclosure and secrecy concepts. Their study showed that even there is a moderate negative correlation between disclosure and secrecy; while secrecy had a direct link with well-being, disclosure was not directly related to well-being.

In sum, these results showed that disclosure and secrecy are two differentiated concepts, which have different effects on well-being. In this vein, the present study examined disclosure and secrecy as two distinct concepts.

2.1.4 Narrative Approach

Narratives are the parts of most of the theory and approach in the history. From Adler and Freud to the present time, the role of narratives is underlined in most well-known approaches but is attributed different functions (Vassilieva, 2016). As opposed to classical theories, modern narrative perspective assumes that narratives are not a part of the whole, it is in the center of the nature of the psychological functioning.

As McAdams (2008) mentioned, narratives and interpersonal interactions are the essences of the developing sense of self. People construct stories with the significant others across the lifespan in social interaction and these stories gained new meanings in this way (Weeks & Pasupathi, 2010). Erikson (1968) stated that the major focus of adolescence is identity development. The narrative approach also focuses on identity development and underlies its contribution to the psychological well-being. Empirical evidence also showed that being able to create coherent and emotion expressed stories, and disclosure are linked to psychological well-being (for a review, see Frattaroli, 2006). However, adolescence is a period that development of cognition and socioemotional skills are not mature enough (Habermas & Bluck, 2000). For this reason, adolescents may need help to construct their stories to give structure to the narratives. Thus "co-construction" of the stories with parents has importance in adolescents' disclosure and well-being as the result of it. While the disclosure has effects on well-being by itself, disclosing to significant others also may create the chance to enhance one's story and, if necessary, "re-construct" the story as central negative stories might be linked to negative self-perception and low psychological

well-being (Harter, 1998). Weeks and Pasupathi (2010) stated that friendship is different than parent-adolescent relationship as it is a distinct relationship with providing a different kind of freedom and connection in narrative and self-construction. In their friendships, adolescents may find an additional space to disclose different parts of the self that parent might not approve.

In sum, narrative approach gives value to the disclosure of stories as it accepts them the core of the identity. Especially in adolescence disclosing to significant others helps to shape identity and reconstruct the negative perception of the self. In this perspective, the narrative approach may explain the link between disclosure and psychological well-being as the literature is presented below indicates.

2.1.5 Self-Determination Theory

Although the disclosure and secrecy literature has not been developed from a theoretical approach, studies provided empirical evidence for the link between disclosure and secrecy behavior, and Self-Determination Theory (SDT).

SDT is an approach that emphasizes the inner sources of people for the development of personality and self-regulation (Deci & Ryan, 1985). The approach states that people have three basic psychological needs to be fulfilled; the fulfillment of universal psychological needs of autonomy, competence, and relatedness is necessary for healthy development, well-being, and integrity. These basic needs are also defined as psychological needs that advance well-being if satisfied, and thwart development and cause pathology, if not satisfied. Autonomy corresponds to engaging in volitional activities which are determined by one's self and not imposed by others. Competence refers to perceiving one's self as capable in front of the optimal challenges. Lastly, relatedness refers to feeling connected to others and developing belongingness (Ryan & Deci, 2002). SDT

8

argues that to reach an optimal psychological well-being level, all the three basic needs should be fulfilled (Deci & Ryan, 1985).

Research findings showed that disclosure is uniquely related to basic need satisfaction and psychological well-being. Beyond this association, the satisfaction of basic psychological needs had a mediational role between disclosure and well-being relationship. In addition to that, secrecy significantly predicted the lower satisfaction of basic needs and need satisfaction mediates 75 % of the secrecy and well-being association. (Uysal et al., 2010). Analyses of the data collected from the present study's sample reported elsewhere, showed that disclosure was positively linked to perceived gratification of basic psychological needs in relationships with both mother and father (Dost-Gözkân, 2016). These analyses also indicated that disclosure and secrecy partially mediated the link between perceived gratification of basic psychological needs and psychological well-being, meaning that adolescents' perception of basic psychological needs predicted psychological well-being both directly and indirectly via disclosure to and secrecy from parents.

In the light of these findings, SDT explains the relationship between disclosure and secrecy behavior, and psychological well-being. We might conclude that while disclosure and secrecy affect the gratification of the basic psychological needs, and predicts psychological adjustment, the satisfaction of the needs also affects the disclosure and secrecy behavior and predicts psychological adjustment.

2.1.6 Secrecy Models

As it is explained below by scientific evidence, secrecy is generally connected with negative psychological outcomes (e.g. Keijsers et al., 2009; Laird et al., 2013b; Laird & Marrero, 2010; Stattin & Kerr, 2000). Kelly (2002) gathered the explanations given in the

literature as to why secrecy is linked to negative outcomes under the three models; *inhibition model,* the *preoccupation model,* and the *self-perception model.*

Inhibition Model. Inhibition model states that the inhibition of disclosure (i.e. secrecy) requires additional efforts, which might cause physiological and psychological negative experiences. Pennebaker (1985), proposed a model of the relationship between inhibition of traumatic events and psychosomatic problems. In the model, there are three main points: "(1) To actively inhibit one's behavior is stressful and disease-related. (2) When individuals do not or cannot express thoughts and feelings concerning a traumatic event (i.e., behavioral inhibition), there is an increased probability of obsessing about the event as well as long-term illness consequences. (3) The act of confiding or otherwise translating the event into language reduces autonomic activity (in the short run) and disease rates." (p. 82). In other words, keeping information as a secret is related to stress and obsession about the event, and these might cause negative outcomes even long term illnesses. The disclosing of the secret is the way of changing this pattern and reduces the negative outcomes.

Preoccupation Model. Preoccupation model is proposed by Lane and Wegner (1995). The model is used to explain how secrecy causes unwanted thoughts and this may cause preoccupation in which these thoughts become invasive and disturbing. This process may drag the person in certain psychopathologies. The model is explained in three main steps. First, secrecy means concealing a certain information and thought, and this causes the suppression of the thought which is an active mental control strategy to inhibit the thought. Second, thought suppression causes the secret-related thoughts to become intrusive. Lastly, the person tries to push the intrusive thoughts that are unpleasant to experience popping up frequently. This causes suppression of intrusive thoughts to keep the secret. Preoccupation model claims that this model is cyclic and after suppression, the

person experiences more intrusive thoughts, and it follows this pattern and might develop into psychopathology unless the person reveals the secret. Lane and Wagner (1995) explain it as "the cognitive strategy of suppression sets in motion a cyclic process that can gather force over time to make any secret a powerful source of runaway obsession." (p.252).

Self-Perception Model. The third model is self-perception model which is adopted by self-perception theory to explain the link between secrecy and negative outcomes. Self-perception theory states that people know their internal states (i.e. emotions and attitudes) by observing their behaviors and the situations that these behaviors occur (Bem, 1972). This theory is close to behavioral perspective by its assumption that internal states are ambiguous and people rely on concrete behaviors to clarify this ambiguity. Especially the socially unacceptable traumatic experiences cause shame feeling and people conceal it from others (Pennebaker, 1985). According to the self-perception model, an individual who keeps the experience as a secret thinks that if this experience cannot be revealed to any other one, this must be really negative.

In sum, inhibition, preoccupation, and self-perception models explains the relation between secrecy and negative psychological outcomes and low psychological well-being.

2.2 Disclosure and Secrecy

In 2000, Stattin and Kerr stated that the parental monitoring research was not examining the action (i.e. how parents get the information) but the extent of parents' information (i.e., about how much they know about their children's activities). They showed the problems about methodology and pointed that researchers should focus on the ways parents get information about adolescents' life. They stated three main ways that parents could get information about their children's activities: child disclosure, parental

solicitation, and parental control. They collected data from parents and adolescents and examined the data which source is most important to get information and how these information-gathering ways are related to norm-breaking behaviors. Results showed that the most common way to get information was the child's disclosure and that disclosure was the best predictor of the norm-breaking behaviors in both parents' and children's reports. They extended these results by using an urban sample and multiple measures to see the relations between information sources and their effects (Kerr & Stattin, 2000). This study added to previous findings that monitoring (i.e. parental knowledge) is negatively related to external and internal well-being, undesirable friends and bad relations with parents; and child disclosure is more strongly linked to monitoring than parental solicitation and control. In other words, child disclosure is more strongly linked to better external adjustment (i.e. less delinquency, deviant friends and school problems, and better relations with the teacher) and also better internal adjustment (i.e. less depressive symptoms, better self-esteem, and better relations with parents) of children. These findings were the turning point of monitoring literature. After this research further research began to focus on child disclosure and secrecy, and the factors that are related to them.

Nevertheless, some research results were contradictory to Stattin and Kerr's findings (2000; Kerr & Stattin, 2000). Fletcher, Steinberg, and Williams (2004) conducted a longitudinal study to examine parental control effects and discussed their findings in the light of Stattin and Kerr's findings. Results have shown that higher parental knowledge via monitoring and control is effective in lowering the degree of adolescents' substance use and problem behaviors; in the same study, lower parental control is found to be related to delinquency. As different than previous results, they interpreted parental control as a way of seeking out information as effective parents.

In 2010, Kerr, Stattin, and Burk reexamined the sources that contribute knowledge of

parents and how these are related to delinquency in adolescence in a longitudinal study. In support of their previous results, they found that adolescent disclosure contributes more to parental knowledge than parental monitoring and there is no evidence showing that parental monitoring encourages adolescent disclosure, but increases boys' delinquency. They also found parental solicitation as the second source to increase parental knowledge for girls. Another longitudinal research replicated the Stattin and Kerr's (2000) study and found similar results. Accordingly, disclosure is the strongest source of parental knowledge and the only one that negatively linked to delinquency (Keijsers, Branje, VanderValk, & Meeus, 2010). Even if there is a relationship between parental solicitation and parental knowledge, this relationship is not strong and does not have an effect on negative outcomes. This study has also shown that when adolescents share more information with their parents, parents ask more question (i.e. solicitation), but just mothers say that asking is an effective way of gaining information.

After empirical evidence had shown that adolescents' information sharing is one of the most important sources of parental knowledge, literature has expanded with disclosure and secrecy research. In the following sections, studies about adolescent disclosure and secrecy from mother, father, and best friend are reviewed.

2.2.1 Disclosure to parents

In the developmental process, disclosure decreases across ages. With the beginning of the adolescence, individuals begin to keep some information as private and reveal fewer as compared to childhood. Accordingly, from childhood to early adolescence and from early adolescence to middle adolescence there is a developmental decrease in disclosure to parents. (e.g. Keijsers et al., 2009; Laird et al., 2013b; Smetana, Villalobos, Tasopoulos-

13

Chan, Gettman, & Campione-Barr, 2009). This, however, means that even though there is a decline in disclosure across ages, it is not necessarily related to negative outcomes.

In addition to the normal developmental changes across ages, research focuses on the high levels of decline in disclosure to parents. It is found that mothers' and adolescents' high in diminished disclosure and fathers' low level of disclosure was found to be related to a robust increase in delinquency (Keijsers et al., 2009). Also, less information sharing than age norms predicts higher depression and depressive symptoms according to parental and adolescent reports (Laird et al., 2013b).

While some research found negative effects of lower levels of disclosure, Almas et al. (2011) examined the relation between child's disclosure and secrecy and coping skills (i.e. stress coping and self-reliance/problem-solving). They found that higher levels of disclosure to parents is related to children's positive coping strategies with stress such as problem-solving or seeking social support. Also, Laird and Marrero (2010) conducted research with mother-adolescent dyads and found that higher levels of concealing (i.e. omitting details, keeping secrets, and lying) and lower levels of disclosure (i.e. telling all and telling if asked) are related with more problem behaviors in adolescents. Another study examined the relationship between self-concealment (i.e. secrecy) and well-being outcomes (i.e. trait anxiety and life satisfaction) in adults (Uysal et al., 2010). This cross-sectional study shows the negative association between high disclosure and trait anxiety in adults.

2.2.2 Secrecy from parents

Keeping secrets from parents, especially from mothers was found to be negatively correlated with parent-child relationship quality and positively correlated with problem behaviors (Smetana et al., 2010). Authors mentioned that problematic behaviors could be

the cause and also the outcome of secrecy. Frijns and colleagues (2010) found support to this idea in their longitudinal research with adolescents. Results showed that secrecy has predicted depression in early adolescence and has stayed related to delinquency across time. Delinquency and secrecy were found to be bidirectionally linked with each other, which means while secrecy predicts delinquency, delinquency predicts secrecy as well.

To our knowledge, just one research found the positive outcome of secrecy in adolescence. Finkenauer and colleagues (2002) conducted a study with 227 adolescents that aimed to show advantages and disadvantages of secrecy. Results show that although secrecy is related to physical complaints, low relationship quality with parents and depressive mood; adolescents who keep secrets from their parents feel more emotionally autonomous according to their reports. This research, particularly the emotional autonomy result, is critical to the literature because it is the only one that found such positive relation. Yet, the meaning of emotional autonomy may require a closer scrutiny as it may not mean something positive especially after research which substantiates that emotional closeness is essential for optimal development and psychological well-being.

Almas and colleagues (2011) again found that children who keep secrets from their mothers use negative stress coping strategies like distancing themselves from the problem, feeling sorry for themselves, or becoming angry. Uygun and colleagues' (2010) study results showed that secrecy was positively related to trait anxiety and negatively related to life satisfaction. Their second study, which is a follow-up study for 16 days, supported the results and showed that even on a daily basis higher secrecy predicted lower well-being.

2.2.3 Family Environment and Satisfaction

Research indicates that familial environment and maternal attitude is related to disclosure and secrecy. Dinizulu and colleagues (2014) revealed most common reasons to

keep secrets from parents. Top three answers are; ''to keep away from being punished'', ''because you do not want your parent/other adults to worry about you'' and ''to keep from getting into an argument'' (p. 47-48). These responses show that adolescents do not share information with their parents because of the fear or concerns about parental negative attitudes and reactions. Another research showed that while encouraging to communication, being sensitive to needs and desires, and considering child's perspective was related to child's disclosure; maternal anger was linked to secrecy (Almas et al., 2011). Moreover, they found that low authoritativeness level was not related to secrecy, but it was related to lack of disclosure. This finding means that not disclosing is not to say that children tell lies, but they can't find the appropriate environment or support to share. When adolescents have better relationships with their mothers (Solis, Smetana, & Comer, 2015), and spend more leisure time with their family (Keijsers et al., 2010) they disclose more and keep fewer secrets. As another aspect of the parental/familial relationship is the adolescent's satisfaction of the relationship. Research shows that parent-child relationship satisfaction is indirectly related with maternal knowledge via disclosure (Urry, Nelson, & Padilla-Walker, 2011). Authors concluded that high-quality family context developed in earlier ages of the child continues to have a positive effect on disclosure.

While most of the research focuses on mother-child dyads, few studies focused on both parents and examine the link between disclosure and secrecy towards mother and father (Smetana et al.2006; Keijsers et al., 2009, Frijns, et al., 2010). Research shows that disclosure to mother about personal issues, school, and peers were moderately related to disclosure to the father, and the same correlational relationship was found for the secrecy behavior.

In summary, research showed that while high disclosure and low secrecy from parents are related to the higher levels of well-being, low disclosure, and high secrecy are

linked with lower levels of well-being. Only one research shows that secrecy might be associated with positive psychological outcomes such as emotional autonomy (Finkenauer, et al., 2002). Our study aims to clarify this conflict by examining disclosure and secrecy in the relationship with mother and father. Also, research shows that family environment and contentment of adolescents of their familial relationship is another factor that is linked to disclosure and secrecy behaviors of adolescents. Our study examines this by measuring family satisfaction via adolescents' reports. In addition to that, previous studies focus either on mother-adolescent information sharing or both parents in same questions (e.g. Almas, et al., 2011; Laird & Marrero 2010; Smetana et al., 2010). With this method, it is difficult to understand parents' distinct roles in adolescence life. The present research separated "parents" and handled disclosure and secrecy from the mother and from the father separately to understand their unique effects on psychological outcomes.

2.2.4 Disclosure and Secrecy in Adolescent-Best Friend Relationships Context

2.2.4.1 Friendship in Adolescence

Developmental theories about change in friendship relations show a pathway from play in early childhood through intimacy and disclosure in adolescence (e.g. Sullivan, 1953). Sullivan argues that friendship has a high impact on psychological well-being. This effect shows up around pre-adolescence period as the result of the need for interpersonal intimacy. He mentioned that beyond the late childhood period's common understanding and impersonal objectives, preadolescence period is characterized by ensuring their friends' needs and seeing each other's success in the keeping prestige and status. This friend relationship was defined as the way of releasing and diminishing anxiety.

In this perspective, the importance of having this intimacy in their lives and the quality of this relationship are paramount factors for the adolescents' well-being. In

addition to intimacy, friendship has other important functions such as security, and trust; instrumental aid; and norm teaching (Rubin, Bukoski, & Parker, 2006). Research showed that lack of the high-quality friendship relation or being friendless in adolescence period is linked to significant risk for internalizing behaviors rather than externalizing (e.g. Engle, McEwan, & Laski, 2011; Pedersen, Vitaro, Barker, & Borge, 2007). Also having friendship relations eases the impact of risk factors. For instance, rejection, sensitivity was found to be related to anxiety among adolescents who do not have friends (Bowker, Thomas, Norman, & Spencer, 2011).

In this manner, friendship relations, and disclosure and secrecy from friendship seems important to discuss and examine in addition to disclosure and secrecy from parents in adolescence.

2.2.4.2 Disclosure and Secrecy from Best Friends

In 2013, Frijns, Finkenauer, and Keijsers's research added another perspective to research and showed the importance of friends' role in sharing secrets. They conceptually divide secrecy into two; *private secrets* which are not shared with anyone and *shared secrets* which are disclosed to at least one person but still kept secret from the rest. Results showed that adolescents mostly had shared secrets, and they shared their secrets with their friends and friends as confidants. Parents were mentioned after friends as the person to share their secret. This means that even if adolescents do not disclose information to their parents, they might have other people, mostly friends, to share it. The most important result is while adolescents who have private secrets have higher levels of delinquency, physical complaints, depressive mood, and loneliness and lower level of relationship quality; adolescents who disclose their secrets at least one person does not have any of these problems but has great interpersonal competence and feeling of emotional support as

a result of disclosure. Laird, Bridges, and Marsee's (2013a) research was the first and only one, to our knowledge, examined the secrecy from the best friend. Results showed that secrecy from the best friend is positively related with secrecy from parents, depression, and antisocial behavior, and negatively related to friendship quality.

In summary, from a developmental viewpoint, friendship has importance in adolescents' lives. Friendship relationships are related to psychological well-being and problems in adolescence. But there is not sufficient number of research to show if disclosure and secrecy from friends are linked to psychological well-being. Frijns and colleagues' (2013) research show that adolescents choose to share their secrets with their friends and not to share or keeping secrets from parents might not mean that they do not have any other one to share. In addition to that Laird and colleagues' (2013a) study examined only the relation between secrecy and negative psychological outcomes. The present study aimed to examine the link between disclosing and secret keeping from friends and psychological well-being besides the various patterns of disclosure and secrecy from parents.

2.3 Person-Centered vs. Variable-Centered Approach in Analysis

This section is about the person-centered approach that was adopted as an analysis method in this study. Differences between person-centered and variable-centered approaches and main assumptions of person-centered approach were explained.

With the development of the area and the increased availability of the large data sets, different analysis techniques came up to the field. There are two different analytic approaches; variable-centered and person-centered. The main difference is their way of describing associations or differences. The variable-centered approach examines the relations among variables: "The focus of interest is the relation between individuals'

positions on latent dimensions, statistically studied across individuals" (Magnusson, 2003, p. 14). In other words, this approach adopts a view that the population is homogeneous and the similar effect found on the members of a certain group or participants. The statistical techniques used in the variable-centered approach examine the predictive power of independent variables on dependent variables or their relations (Laursen & Hoff, 2006).

The person-centered approach, on the other hand, adopts a different perspective. This approach is interested in the individual differences in terms of the patterns of relations between variables. Magnusson (2003) described this approach as "the identification of groups of individuals who function in a similar way at the organism level and in a different way relative to other individuals at the same level." The approach classifies members of a group or participants according to their shared characteristics. It assumes that population is heterogeneous in terms of the effects of predictors on outcomes or in terms of their relations.

As the standing points are different, variable-centered and person-centered approaches use different analytical techniques. While variable-centered method adopts analysis like correlations, regressions, and structural equation models; person-centered approach adopts analyses such as cluster, latent class, and finite mixture modeling (von Eye & Wiederman, 2015). In person-centered approach, each of these techniques has the same assumption that population is heterogeneous in terms of the relationships between variables and they all have the aim to search for groups that its members characterized by a certain pattern in terms of the variables of interest (Laursen & Hoff, 2006).

In disclosure and secrecy literature, there are not much studies that was used person-centered analysis. To our knowledge, only one research examined information management in adolescents via person-centered analysis. Cumsille, Darling, and Martinez

(2010) used one of the person-centered analysis methods, Latent Class Analysis, in order to identify patterns of information sharing strategies of adolescents towards mothers. Clusters were identified via several variables; self-reported problem behaviors, obedience, agreement with parents, and beliefs about parental legitimacy, and perception of maternal knowledge and warmth. They found a 5-classes solution, which shows differences across telling all, avoiding, tell some parts and lying strategies and found significant differences in positive attributes in favor of the class who share more, avoid less and do not lie.

In the present study, we adopted the person-centered approach and used the cluster method to identify the groups who share similar patterns of disclosure and secrecy towards their parents and close friends. Also, we adopted the variable-centered approach to compare the results and showed the differences between person and variable-centered approaches.

2.4 Overview of the Literature & the Present Study

Disclosure and secrecy literature in adolescence is still growing. As it began to evolve from the parental monitoring literature, most of the research have focused on the parent-adolescent, especially mother-adolescent relationships. When we consider the development and specifically the adolescence period, it is important to consider friendship relationship contexts; and the literature is immature in this area. To our knowledge, there is just one study about secrecy from best friends in the field. The present study aimed to contribute to this literature by not only focusing on relationship with best friend but also including disclosure and secrecy from mother and father, and examining three close relationship contexts in adolescents' lives.

Also, previous research on friendship relations does not address disclosure and secrecy behavior together. Although in the parent relationship context, most research

reaches a consensus about the distinction of disclosure and secrecy, it is still not clear for friendship literature. Literature mostly focuses on the externalizing or internalizing behaviors of adolescence as the result of disclosure and secrecy. We aimed to focus on positive aspects and psychological well-being of adolescents.

Lastly, to our knowledge, only one research before the present one adopted the person-centered approach to analyze information management of adolescents (Cumsille et al., 2010). Person-centered approach added a new perspective to the literature and this analytic approach enables us to see the different levels of disclosure and secrecy towards parents and best friends patterns in our sample. In this vein, the final purpose of the study is to find out different disclosure and secrecy patterns, separately and together, clustering them, and examining their links to psychological well-being.

2.5 Research Questions and Hypothesis

The following hypotheses were examined via variable-centered approach by conducting structural equation modeling analysis (see, Figure 1):

Hypothesis 1. Higher disclosure to mother is expected to predict higher psychological well-being (higher problem solving confidence and life satisfaction, and lower anxiety).

Hypothesis 2. Higher disclosure to father is expected to predict higher psychological well-being (higher problem solving confidence and life satisfaction, and lower anxiety).

Hypothesis 3. Higher disclosure to the best friend is expected to predict higher psychological well-being (higher problem solving confidence and life satisfaction, and lower anxiety).

Hypothesis 4. Higher secrecy from mother is expected to predict lower psychological well-being (lower problem solving confidence and life satisfaction, and higher anxiety).

Hypothesis 5. Higher secrecy from father is expected to predict lower psychological well-

being (lower problem solving confidence and life satisfaction, and higher anxiety).

Hypothesis 6. Higher secrecy from the best friend is expected to predict lower

psychological well-being (lower problem solving confidence and life satisfaction, and

higher anxiety).
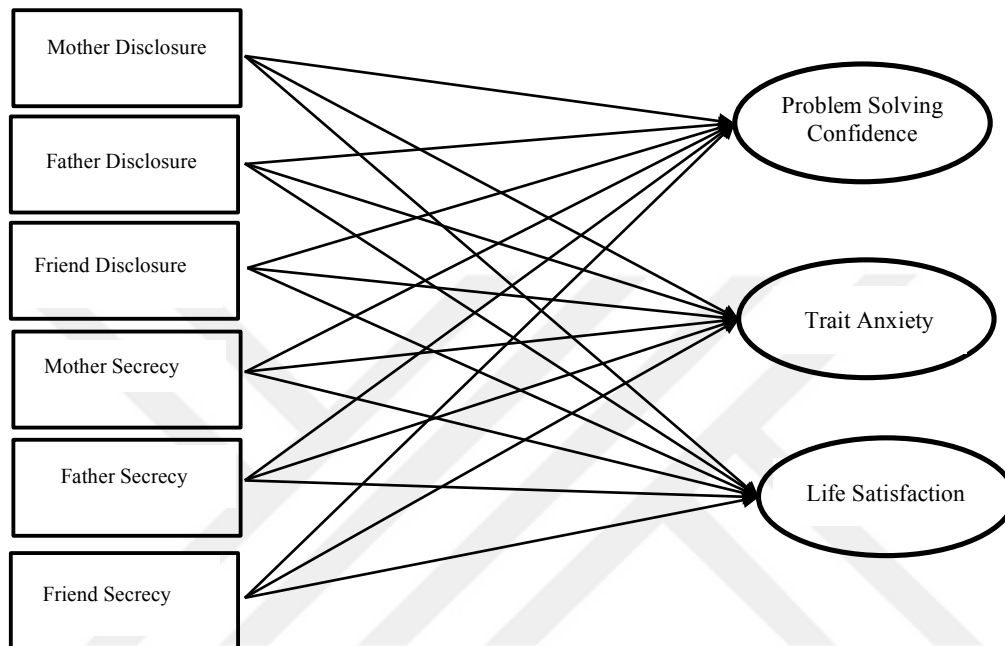
Figure 1. Theoretical model for the relations between disclosure and secrecy, and psychological adjustment indicators

Below are the questions that were examined via person-centered approach with

cluster analyses:

Question 1. Which groups of adolescents with distinctive disclosure and secrecy patterns

can be distinguished in the three close relationship contexts? In other word, considering

adolescents' disclosure and secrecy behaviors in their relationships with their mother,

father, and the best friend together, what kind of behavior patterns can be drawn?

Question 2. How do these groups (or the disclosure and secrecy behavior patterns) differ in

life satisfaction subdomains, trait anxiety, and problem-solving confidence?

Chapter 3

METHOD

3.1 Participants

A data set from a study funded by The Turkish Technological and Scientific Research Council (Project no: 115K324) was used to in this study. The sample consisted of 1365 Turkish adolescents. After the cluster analysis, 65 adolescent were excluded from data because of the missing values. The final number of participants was 1300 adolescents. Independent samples t-test results showed that there were no significant differences between included (age; $M =15.06, SD=1.53$) and excluded (age; $M =15.02, SD=1.60$) participants in age [$t(1357)=-1.19, p=.234$] and sex [$t(1259)=.21, p=.834$] variables. Only socioeconomic status showed significant different between included ($M =3.49, SD=1.17$) and excluded ($M =2.95, SD=1.03$) participants; $t(1336)=3.23, p=.001$.

Descriptive statistics showed that the age range of adolescents was 11 to 19 ($M =15.06, SD=1.5$). Mothers' ages were between 29 to 58 ($M =41.18, SD=5.29$), and fathers' ages were between ages 28 to 75 ($M =45.35, SD=5.78$). Education level of mothers ($M =3.32, SD=1.33$) and fathers ($M =3.65, SD=1.23$) ranged between "0" and "6" (0 = not able to read-write; 6 = "graduate level"). Additional demographic characteristics of participants are presented in Table 3.1.

3.2 Procedure

Data were collected from eight public schools from different districts in Istanbul following the standard ethical procedures. Before the data collection procedure, an approval was obtained from Istanbul branch of Ministry of Education and Ethical Board of Özyeğin University. School administrators were contacted, and consent forms for both

students and parents were distributed. Those students whose parents and themselves gave informed consent participated in the present study. Students filled out a battery of questionnaires in a class time. All measures were completed only by students.

Table 3.0.1. Means and Standard Deviations for the Demographic Variables Table

	M	SD	Range
Adolescents' age	15.06	1.53	11-19
Mother's age	41.18	5.29	29-58
Fathers' age	45.35	5.78	28-75
Mothers' education level	3.32	1.33	0-6
Fathers' education level	3.65	1.24	0-6
Socioeconomic status	3.49	1.17	0-6
Adolescents' sex			
Girls	59.1 %		
Boys	40.9 %		
Marital status of parents			
Married	93.0 %		
Divorced	6.4 %		
Other	0.6 %		
Mothers' employment			
Employed	31.7 %		
Non-employed	62.2 %		
Retired	4.5 %		
Fathers' employment			
Employed	90.2 %		
Non-employed	1.9 %		
Retired	7.9 %		

3.3 Measures

3.3.1 Demographics. Demographic questionnaire is provided in Appendix A. The questionnaire included the date of birth, gender, grade, GPA, parents' ages, the level of education, employment, marital status and occupation.

25

3.3.2 Child Disclosure and Secrecy (Kerr & Stattin, 2000). The original scale is composed of 5 items. Three of these items measure the level of adolescent's disclosure to parents. These items are: 'Do you spontaneously tell your parents about your friends (e.g. which friends you hang out with and how you think and feel about various things)?', 'How often do you want to tell your parents about school (e.g., how each subject is going; relationships with teachers)?', 'Do you like to tell your parents about what you did and where you went during the evening? The rest of the items measure the level of secrecy from parents. The items are: 'Do you keep a lot of secrets from your parents about what you do during your free time?', and 'Do you hide a lot from your parents about what you do during nights and weekends?'. Adolescents responded to each item from on a 5-point Likert scale (1 = never; 5 = always). Cronbach's alpha level of original scale was .87. In Turkey, Sayıl and colleagues (2012) used the scale as a single factor and the Cronbach's alpha was found to be .86. Considering the aims of the study, secrecy and disclosure items were treated separately. Also, confirmatory factor analysis supported this approach. In the present study, one item was added to the 5 original items: "In general, how often do you share your thoughts and feelings you're your mother/father?". The wording of the scale was also modified for the friend version. In the present study, internal reliability coefficients range between .81 and .83 for secrecy, and between .71 and .73 for disclosure subscales. Questionnaires are provided in Appendix B and C.

3.3.3 Multidimensional Life Satisfaction Scale (Huebner, 2001; Huebner & Gilman, 2002). The scale was adapted to Turkish by Irmak and Kuruüzüm (2009). The scale consists of 40 items which are about life satisfaction in 5 domains: Self, family, school, friends and neighborhood of adolescents on a 5-point Likert scale. For the purposes of the present study, self, family, school, and friends domains, with a total of 30 items, were used, excluding the satisfaction with the neighborhood. Cronhach's alphas are .91 for

the whole scale, and .90, .85, .81, and .81 for the family, friend, school and the self domains, respectively in the present sample. Questionnaire is provided in Appendix D.

3.3.4 The State-Trait Anxiety Scale (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1970). The scale, which was adapted to Turkish by Öner and Le Compte (1985), assesses the general mood of people independently of their current mood with 20 items on a 4-point Likert scale (1= Almost Never; 4=Almost Always). The Cronbach's alpha of original scale ranged from .86 to .92. In the present sample, Cronbach's alpha is .84. Questionnaire is provided in Appendix E.

3.3.5 Problem-solving Confidence Scale (Heppner & Peterson, 1982). The problem-solving confidence scale is a six items subscale of Problem Solving Inventory, which was adopted to Turkish by Şahin, Şahin, and Heppner (1993). This subscale assesses self-perceived confidence in problem-solving ability. It is assessed on a 5-Likert scale (1=Never; 5=Always). The Cronbach's alpha of original scale was found to be.85. In the present sample, Cronbach's alpha is .79. Questionnaire is provided in Appendix F.

Chapter 4

RESULTS

4.1 Descriptive Analyses

4.1.1 Descriptive Analyses of Disclosure and Secrecy

In this section, characteristics of disclosure and secrecy behaviors of the sample are presented. The mean levels of disclosure and secrecy are shown in Table 4.1. Disclosure and secrecy means compared with general linear modeling. For disclosure, mean differences found significant; $F(2, 1230)=305.87$, $p=.000$, partial $\eta^2=.33$. Post-hoc analysis showed that all disclosure means were significantly different between each other. Mother was the first person with whom adolescents share information most. Best friend and father followed the mother, respectively. For secrecy, analysis showed that mean differences were significantly different between each other; $F(2, 1230)=305.87$, $p=.000$, partial $\eta^2=.03$. Post-hoc analysis revealed detailed mean differences; adolescents kept significantly more secrets from their father than mother and best friend. Mother and best friend's means came after the father in secrecy, respectively but difference between them was not significant.

Table 4.1. Descriptive Statistics of Disclosure and Secrecy

	N	M	SD
Disclosure to mother	1300	3.83	.90
Disclosure to father	1300	3.22	.99
Disclosure to best friend	1300	3.71	.86
Secrecy from mother	1300	1.98	1.12
Secrecy from father	1300	2.11	1.19
Secrecy from best friend	1300	1.93	1.04

Bivariate correlations were conducted to see the relationships between disclosure and secrecy from the mother, father, and best friend, and demographic variables (Table 4.2). Results showed that adolescents' disclosure to the mother, father, and best friend

were related to each other ($p<.01$). Also adolescents' secrecy from the mother, father, and best friend was related to each other ($p<.01$). While mother disclosure was negatively linked to secrecy from mother, father, and best friend ($p<.01$), father disclosure was negatively linked to secrecy from mother and father ($p<.01$), and best friend disclosure was only linked to best friend secrecy ($p<.01$).

Age was related to disclosure to father and secrecy from best friend negatively ($p<.01$), disclosure to best friend and secrecy from mother and father positively ($p<.01$). The link between age and disclosure to mother was not significant. Lastly, SES was related to disclosure to father and mother positively ($p<.01$) and secrecy from best friend negatively ($p<.01$). There were no significant relations between SES and secrecy from mother and father.

Independent group t-test analyses were conducted to examine the differences between boys and girls. Results showed that girls ($M=3.99$, $SD=.90$) disclosed more information to their mother than boys ($M=3.60$, $SD=.86$); $t(1293)=7.78$, $p=.000$. Also, girls ($M=3.92$, $SD=.82$) disclosed more to their best friend than boys ($M=3.40$, $SD=.83$); $t(1293)=11.17$, $p=.000$. Disclosure to father did not significantly differ between girls and boys; $t(1293)=.44$, *ns.* Boys kept more secrets from their mother ($M=2.24$, $SD=1.15$) than girls ($M=1.80$, $SD=1.07$); $t(1082)=-7.05$, $p=.000$. Boys ($M=2.33$, $SD=1.21$) also kept more secrets from father than girls ($M=1.96$, $SD=1.15$); $t(1097)=-5.53$, $p=.000$. Lastly, again boys' secrecy ($M=2.18$, $SD=1.08$) from the best friend was higher than girls' secrecy ($M=1.75$, $SD=.96$); $t(1051)=-7.48$, $p=.000$. These results were used in further statistical analyses.

Table 4.2 Correlation between dependent and independent variables

	1	2	3	4	5	6	7	8	9	10	11	12
1.Age												
2.Sex	-.10**											
3.SES	.16**	.01										
4.Disclosure to mother	-.04	-.21**	.07*									
5.Disclosure to father	-.14**	-.01	.09**	.57**								
6.Disclosure to friend	.14**	-.30**	.15**	.35**	.24**							
7.Secrecy from mother	.07**	.20**	-.02	-.27**	-.17**	-.01						
8.Secrecy from father	.10**	.15**	-.04	-.20**	-.26**	.00	.79**					
9.Secrecy from friend	-.10**	.21**	-.08**	-.11**	-.04	-.20**	.31**	.29**				
10.Life Satisfaction	-.19**	-.01	-.06*	.42**	.44**	.17**	-.27**	-.28**	-.09**			
11.Trait Anxiety	.08**	-.20**	-.05*	-.09**	-.18**	.05	.18**	.20**	.04	-.38**		
12.Problem Solving Confidence	-.00	.06*	-.02	.26**	.28**	.15**	-.07**	-.11**	-.02	.39**	-.36**	

Note. **p<.01, *p<.05

4.1.2 Descriptive Analyses of Psychological Well-being Indicators

In this section, characteristics of psychological indicators are presented. Life satisfaction, trait anxiety, and problem-solving confidence are the indicators of psychological well-being in this study. The descriptive characteristics of psychological well-being indicators are presented in Table 4.3.

Table 4.3. Descriptive Statistics of Psychological Well-being Indicators

	N	*M*	*SD*
Life Satisfaction	1292	3.80	.59
Trait Anxiety	1253	2.32	.44
Problem Solving Confidence	1250	3.72	.76

Table 4.2 shows the correlations between the indicators. While the correlations life satisfaction and problem-solving confidence were positively related ($p<.01$), they were negatively related to trait anxiety ($p<.01$). This correlation supported our assumption that high life satisfaction and problem-solving confidence, and low anxiety are the indicators of higher psychological well-being, and reverse for the lower psychological well-being.

Age was negatively correlated with life satisfaction ($p<.01$), and positively correlated with trait anxiety ($p<.01$). There was no significant correlation between age and problem-solving confidence. Their correlations with SES also showed that SES was linked to life satisfaction and trait anxiety in a negative way ($p<.05$). There were no significant links between SES and problem-solving. Lastly, trait anxiety was negatively related to sex ($p<.01$) and positively related to problem-solving confidence ($p<.05$). There was no significant relationship between life satisfaction and sex. These results were used in further statistical analyses.

4.1.3 Correlation between disclosure and secrecy and psychological well-being indicators

Bivariate correlations between disclosure, secrecy, and psychological indicator showed that life satisfaction was positively correlated with disclosure to mother, father, and best friend ($p<.01$); and it was negatively correlated with secrecy from mother, father, and best friend ($p<.01$). Trait anxiety was linked to disclosure to mother and father negatively ($p<.01$) and secrecy from mother and father positively ($p<.01$). There were no significant correlations between disclosure and secrecy from best friend with trait anxiety. Lastly, problem solving confidence was positively and linked to disclosure to mother, father, and best friend ($p<.01$). Also it was linked to secrecy from mother and father in negative way ($p<.01$). There was no significant correlation between secrecy from best friend and problem solving confidence.

4.2 Variable-Centered Analyses

Hypothesis 1, 2, and 3 assumed that higher levels of disclosure to mother, father, and best friends would predict higher psychological well-being. In addition to that hypothesis 4,5, and 6 assumed that higher levels of secrecy from mother, father, and best friedn would predict lower psychological well-being. To examine these relations, disclosure and secrecy from the mother, father, and best friend were regressed on the psychological well-being indicators (life satisfaction, trait anxiety, and problem-solving confidence) by using M*plus* 7.4; age, sex, and SES were included in the model as control variables.

The model, presented in Figure 1, was tested using three goodness-of-fit indices: CFI (Comparative Fit Index; Bentler, 1990); RMSEA (Root Mean Square Error of Approximation; Browne & Cudeck, 1993); and TLI (Tucker–Lewis Index; Tucker & Lewis, 1973). The values of CFI and TLI greater than .90 were accepted as an adequate fit

to the data (Bentler & Bonnett, 1980); .95 were accepted as a good model fit (Hu & Bentler, 1998). The values of RMSEA less than .05 were accepted as the indicator of a close fit of the model with the data (Browne & Cudeck, 1993).

The paths that were not significant were removed; a path from mother disclosure to trait anxiety, a path from best friend disclosure to trait anxiety, a path from mother secrecy to problem solving confidence a path from best friend secrecy to problem solving confidence, a path from best friend secrecy to trait anxiety, a path from best friend secrecy to life satisfaction. The final model fit was good; $\chi^2 = 8.97$, $df = 9$, $p = 0.44$, CFI/TLI = 1.00/1.00, RMSEA = 0.000, CI RMSEA = [0.00 – 0.031]. Figure 2 presents the final model with significant standardized coefficients.

The model showed that, after controlling for demographic variables, disclosure to mother predicted higher life satisfaction, yet unexpectedly higher levels of disclosure to mother predicted lower levels of problem solving confidence. For secrecy, higher secrecy from mother predicted higher trait anxiety and lower life satisfaction, but unexpectedly secrecy from mother did not problem solving confidence. As expected, higher levels of disclosure to father was linked to higher levels of life satisfaction and problem solving confidence, and lower anxiety; and keeping secrets from father predicted lower life satisfaction and problem solving confidence, and higher anxiety. Disclosure to best friend had a significant effect on problem solving confidence and life satisfaction, but keeping secrets from the best friend did not predict any of the psychological well-being indicators. Specifically, and higher levels of disclosure to the best friend was linked to higher life satisfaction and problem solving confidence.

The results partially supported Hypothesis 1. Disclosure to mother predicted higher life satisfaction, but contrary to expectations it predicted lower problem-solving confidence. It did not predict anxiety. Hypothesis 2 was about the links between disclosure

to father and psychological well-being, and it was fully confirmed by the analysis. Disclosure to the father would predict high psychological well-being as it predicted high problem-solving confidence and life satisfaction, and low trait anxiety. Hypothesis 3 was partially supported as disclosure to best friend predicted problem solving confidence and life satisfaction. Hypothesis 4 was partially supported: secrecy from mother did not predict problem solving confidence, but predicted lower life satisfaction and higher trait anxiety; yet this was an expected relationship. Hypothesis 5 was fully supported as secrecy from father predicted lower life satisfaction and problem solving confidence, and high anxiety. Lastly, Hypothesis 6 was not supported: keeping secrets from the best friend did not predict any of the psychological well-being indicators.

Overall these results highlighted the relative importance of information sharing and keeping secrets in two important close relationship context; the father and the mother in terms of their implications for psychological well-being.
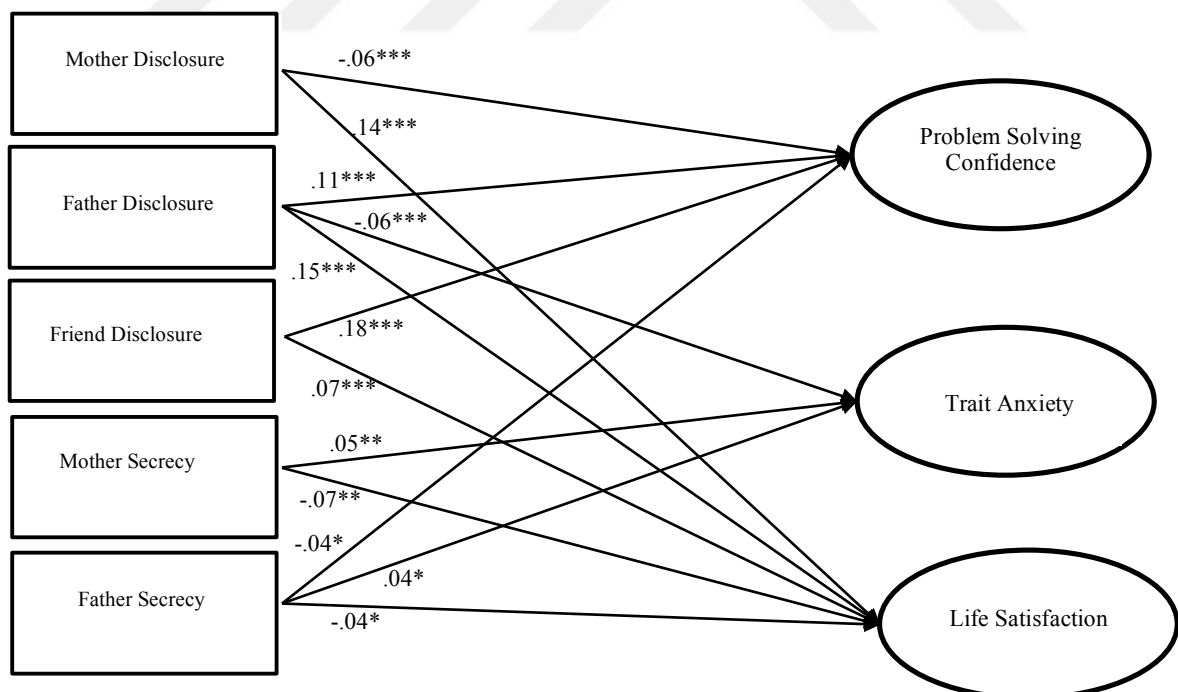
Figure 2. Path model for the relations between disclosure and secrecy, and psychological adjustment indicators

4.3 Cluster Analyses

The first research question aimed to determine distinctive clusters of disclosure and secrecy patterns in three relationship contexts; with mother, father, and best friend. To examine this research question three cluster analyses were performed (disclosure behavior only, secrecy behavior only, and both disclosure and secrecy behaviors).

Cluster analysis is an inductive method assuming that there is no prior hypothesis about groups and; cluster analysis is useful when the researcher attempts to develop a hypothesis or theory based on the data (Hair, Anderson, Tatham, & Black, 1998). There was no previous study to develop specific hypothesis about how psychological well-being may vary depending on the cluster characteristics because of this characteristic of the study, cluster analysis was appropriate to use. In the present study, we used a hierarchical cluster analysis using Ward's (1963) method. In Ward's method clustering depends on combinations as result of an increase in the within-cluster sum of squares (Anderberg, 1973). Euclidean distance was used to measure the distance between observations.

Clusters were determined by examinations of dendrograms and investigating if there were meaningful distinctions between clusters using Multivariate Analyses of Covariance (MANCOVA). Dendrograms are branches like graphics that show hierarchical clustering steps from a single cluster to the single case large cluster. In dendrograms, the height of the branches from one joint point to another shows the similarity of the cases; mergence of the longer branches indicates mergence of the less similar clusters (Milligan & Hirtle, 2012). This information was used to decide on the number of clusters. As the descriptive analyses of clusters and psychological well-being indicators showed, sex, age,

and SES were linked to disclosure, secrecy, and psychological well-being indicators; therefore, demographic were controlled in the multivariate analyses (MANCOVAs).

First of all, disclosure to the mother, father, and best friend variables were used to determine clusters. Second, secrecy behavior was the criteria to create clusters. Lastly, disclosure and secrecy behaviors were examined together to determine clusters.

4.3.1 Disclosure

A cluster analysis was performed on the disclosure to mother, father, and best friend. According to the dendrogram, the four-cluster solution was found be most suitable according to dendrogram branches and Milligan and Hirtle's (2012) explanation of similarity of clusters according to the length of the branches (see the Figure 3). MANCOVA was performed to see if disclosure clusters differ from each other on disclosure behavior after controlling for effects of the demographics; four cluster solution was the independent variable, and disclosure to mother, father, and the best friend were the dependent variables; and age, sex, and SES were the covariates. The Wilks' Lambda of .152 was significant, $F(9, 3100)= 401.04$, $p=.000$, partial $\eta^2=.466$. The multivariate effects of the covariates sex, age, and SES on disclosure were significant [sex, $F(3,1274)=29.44$, $p=.000$, partial $\eta^2=.065$; age, $F(3,1274)=13.38$, $p=.000$, partial $\eta^2=.031$; SES, $F(3,1274) = 6.23$, $p=.002$, partial $\eta^2=.014$]. Table 4.4 shows the between-subject effects for disclosure to mother, father, and best friend.

Table 4.4. Between-subject Effects of Disclosure Clusters on Disclosure to Mother, Father, and Best Friend

Dependent Variable	df	F	Partial η^2
Disclosure to mother	(3, 1276)	652.58***	.61
Disclosure to father	(3, 1276)	785.95***	.65
Disclosure to friend	(3, 1276)	224.78***	.35

*Note. ***p<.001*

General disclosure mean scores (means of disclosure to mother, father, and best friend) were used to label and differentiate clusters. Clusters were labeled according to their disclosure patterns in three relationships. The first cluster, labeled *Best Friend* (*n*=375), was characterized by low disclosure to parents and high disclosure to best friends. The second group, *None* (*n*=278), was characterized by low disclosure to mother, father, and best friend. The third cluster, labeled as *All* (*n*=465), was characterized by high disclosure to all. The last group was *Parents* (*n*=182) and it was characterized by high disclosure to parents and low disclosure to the best friend. (Table 4.5).

Table 4.5. Disclosure Clusters and Mean Values

Cluster Names	N	Disclosure to Mother	Disclosure to Father	Disclosure to Best Friend
Best Friend (1)	375	3.76	2.92	4.03
None (2)	278	2.82	2.22	3.19
All (3)	465	4.57	4.18	4.29
Parents (4)	182	4.02	3.35	3.06
General Mean	1300	3.83	3.22	3.71

Note. Green cells: high disclosure; Red cells: low disclosure

4.3.1.1 Descriptive Analyses of Disclosure Clusters

In this section sex, age, and SES distribution and differences between disclosure clusters were examined. Chi-square test was performed to see sex distribution across the clusters. Results showed that boys' and girls' percentages in clusters significantly differed from each other; X^2(3, *N*=1295) =79.97, *p*=.000. As compared to boys; girls were represented more in clusters *Best Friend* (26.3% vs. 14.3%), *All* (40.9% vs. 28.3%), and represented less in clusters *None* (9.9% vs. 19.8%) and *Parents* (22.9% vs. 37.5%).

Analyses of Variance (ANOVAs) were performed to examine the age and SES differences between groups. One-way ANOVA was performed with the four clusters solution as the independent variable and age and SES as the dependent variables. Results have shown that age differs between clusters; *F*(3,1293)=6.27, *p*=.000. The Levene's

homogeneity of variance test was significant (*p*=.04) and Games-Howell test was used to conduct post-hoc analysis. Results showed that *Best Friend* cluster's age (*M*= 15.25, *SD*= 1.43) was significantly higher than *All* (*M*= 14.94, *SD*= 1.50) and *Parents* (*M*= 14.75, S*D*= 1.66) clusters. *None* (*M*= 15.22, *SD*= 1.55) cluster was significantly higher than *Parents* cluster. Also, *All* cluster was significantly higher than *Parents* cluster.

Second ANOVA was conducted to see if SES shows significant changes between groups. Results showed that SES is also different between disclosure clusters; $F(3,1284)=4.97$, *p*=.002. Levene's homogeneity of variance test was not significant (*p*=.122) and Scheffe test was used to conduct post-hoc analysis. Results showed that only *All* (*M*= 3.62, *SD*= 1.13) cluster's SES was significantly higher than *None* (*M*= 3.36, *SD*=1.19) clusters' SES. *Best Friend* (*M*= 3.55, *SD*= 1.13) and *Parents* (*M*= 3.34, *SD*= 1.23) cluster did not show differences between others and each other.

4.3.2 Secrecy

The second cluster analysis was performed on the secrecy from mother, father, and best friend. According to the Dendrogram, the five-cluster solution was found be most suitable solution (see Figure 4). MANCOVA was performed to see if secrecy groups differ from each other in secrecy behavior after controlling for the effect of demographics; five clusters were the independent variables, and secrecy from the mother, father, and best friend were the dependent variables; and age, sex, and SES were the covariates. The Wilks' Lambda of .106 was significant, $F(12, 3397)= 379.20$, *p*=.000, partial η^2=.527. The multivariate effects of the covariates sex and age on secrecy were significant [sex, $F(3,1284)=5.39$, *p*=.001, partial η^2=.012; age, $F(3,1284)=3.48$, *p*=.015, partial η^2=.008]. SES did not have a significant effect on secrecy from the mother, father, and best friend across the secrecy groups; $F(3,1284) = 2.35$, *ns*. Table 4.6 shows the between-subject

effects for secrecy from the mother, father, and the best friend after controlling for the demographics.

Table 4.6. Between-subject Effects of Secrecy Clusters on Secrecy from Mother, Father, and Best Friend

Dependent Variables	df	F	Partial η^2
Secrecy from mother	4, 1286	802.16***	.71
Secrecy from father	4, 1286	946.70***	.75
Secrecy from friend	4, 1286	276.46***	.46

*Note. ***p<.001*

General secrecy mean values in three relationships were used to label and differentiate clusters. The first cluster labeled as *All* (*n*=334) was characterized by high secrecy in three relationships. The second cluster (*n*=313) was labeled *Low* and was characterized by close to mean level secrecy in three relationship contexts. The third group, *None* (*n*=233), was characterized by the lowest level of secrecy in all contexts. The fourth, *Parents* (*n*=272), was characterized by high secrecy level from parents and low secrecy level from the best friend. The fifth group, *Best Friend* (*n*=141), was characterized by low secrecy from parents and high secrecy from best friends (Table 4.7).

Table 4.7. Secrecy Clusters and Mean Values

Cluster Names	N	Secrecy from Mother	Secrecy from Father	Secrecy from Best Friend
All (1)	334	3.44	3.68	2.58
Low (2)	313	1.27	1.41	1.51
None (3)	233	1.00	1.00	1.00
Parents (4)	272	2.20	2.33	1.70
Best Friend (5)	141	1.27	1.34	3.26
Total	1293	1.98	2.11	1.93

Note. Green cells: low secrecy; Yellow cells: average secrecy; Red cells: high secrecy

4.3.2.1 Descriptive Analyses of Secrecy Clusters

In this section sex, age, and SES distribution and differences between secrecy clusters were examined. Chi-square test was performed to see the gender distribution

across the clusters. Results showed that boys' and girls' percentages in clusters differed from each other; X^2(4, N=1295) =72.26, p=.000. As compare to boys, girls were represented more in clusters Low (28.4% vs. 18.1%) and None (22.9% vs. 10.9%), and lower in All cluster (19.7% vs. 22.8%).

ANOVAs were performed to examine the age and SES differences between clusters. One-way ANOVA was performed with the five clusters solution as independent variable and age as the dependent variable. It was found that age differs between secrecy clusters; F(4,1292)=7.73, p=.000. The Levene's homogeneity of variance test was not significant (p=.064) and Scheffe test was used to conduct post-hoc analysis. *All* (M= 15.20, SD= 1.51), *Low* (M= 15.00, SD= 1.43), *None* (M= 15.08, SD= 1.57), and *Parents* (M= 15.26, SD= 1.56) clusters' age means was higher than *Best Friend* cluster's age mean (M= 14.45, SD= 1.51).

Another ANOVA was conducted to see if SES significantly differs between clusters. Results showed that SES did not differs between the clusters, F(4,1283)=2.08, p=.081.

4.3.3 Disclosure & Secrecy

Lastly, a cluster analysis was performed on the disclosure to and secrecy from mother, father, and best friend. According to the dendrogram, a five-cluster solution was found be most suitable (Figure 5). MANCOVA was performed with the five cluster solution as the independent variable, disclosure and secrecy from the mother, father, and best friend as the dependent variables; and age, sex, and SES as covariates. The Wilks' Lambda of .11 was significant, F(24, 4431)= 163.68, p=.000, partial η^2=.425. The effects of the covariates sex, age, and SES on disclosure and secrecy were found to be significant [sex, F(6,1270)=21.33, p=.000, partial η^2=.092; age, F(6,1270)=10.05, p=.000, partial

η^2=.045; SES, $F(6,1270) = 4.35$, p=.000, partial η^2=.020]. Table 4.8 shows the between-subject effects for disclosure and secrecy from the mother, father, and best friend while demographic variables were controlled.

Table 4.8. Between-subject Effects of Disclosure & Secrecy Clusters on Disclosure and Secrecy from Mother, Father, and Best Friend

Dependent Variable	df	F	Partial η^2
Disclosure to mother	4, 1278	175.51***	.36
Disclosure to father	4, 1278	192.42***	.38
Disclosure to friend	4, 1278	96.80***	.23
Secrecy from mother	4, 1278	481.76***	.60
Secrecy from father	4, 1278	697.46***	.69
Secrecy from friend	4, 1278	85.20***	.21

Note. ***p<.001

General disclosure and secrecy mean values in three relationships were used to label and differentiate clusters (means of disclosure and secrecy from mother, father, and best friend) (Table 4.9). The first cluster labeled *None* (*n*=325) was characterized by low disclosure to all and low secrecy from all. The second cluster was labeled *Best Friend Secrecy* (*n*=289) and was characterized by high disclosure to all, low secrecy from mother and father, and high secrecy level from best friend. The third group, *Low Father & Best Friend Disclosure* (*n*=274), was characterized by high disclosure to mother, low disclosure to father and best friend, and low secrecy from all. The fourth, *Low Parent Secrecy* (*n*=264), was characterized by low disclosure to all and low secrecy from mother and father, and high secrecy from best friend. The fifth group, *All* (*n*=148), was characterized by high disclosure to and low secrecy from all.

4.3.3.1 Descriptive Analyses of Disclosure & Secrecy Clusters

In this section sex, age, and SES distribution and differences between secrecy clusters were examined. Chi-square test performed was to see the gender distribution

across the clusters. Results showed that boys' and girls' percentages in clusters differed from each other; X^2(4, N=1295) =99.61, p=.000. As compared to boys; girls were represented less in clusters *None* (19.2% vs. 33.0%) and *Low Parent Secrecy* (16.1% vs. 26.6%), and high in *All* clusters (16.9% vs. 3.4%).

ANOVAs were performed to examine the age and SES differences between groups. One-way ANOVA was performed with the five clusters solution as independent variable and age as the dependent variable. It was found that age significantly differs between disclosure and secrecy clusters; F(4,1292)=2.43, p=.046. The Levene's homogeneity of variance test was not significant (p=.098) and Scheffe test was used to conduct post-hoc analysis. There were no significant differences between clusters.

Second ANOVA was conducted to see if SES significantly changes between groups. Results showed that also SES of the clusters are different between each other; F(4,1283)=3.28, p=.011. The Levene's homogeneity of variance test was not significant (p=.434) and Scheffe test was used to conduct post-hoc analysis. There were no significant differences between clusters.

Table 4.9. Disclosure and Secrecy Clusters and Mean Values

	N	Mother Disclosure	Father Disclosure	Friend Disclosure	Mother Secrecy	Father Secrecy	Friend Secrecy
None	325	3,57	2,88	3,66	3,40	3,72	2,59
Best Friend Secrecy	289	4,36	3,79	4,04	1,80	1,94	2,10
Low Father & Best Friend Disclosure	274	3,93	3,17	3,61	1,13	1,16	1,36
Low Parent Secrecy	264	2,98	2,46	3,03	1,85	1,87	1,95
All	148	4,72	4,32	4,52	1,02	1,08	1,20
Total	1300	3,83	3,22	3,71	1,98	2,11	1,93

Note. For disclosure; Green cells: high disclosure; Red cells: low disclosure. For secrecy; Green cells: low secrecy; Red cells: high secrecy.

4.4 Relation between the Disclosure and Secrecy and Psychological Well-being

Research Question 2 aimed to examine the differences between clusters across psychological well-being indicators. To examine whether the psychological well-being indicators differed across the cluster groups, MANCOVAs, and univariate ANCOVAs were conducted via General Linear Model (GLM) procedure with clusters of disclosure and/or secrecy as independent variables; and life satisfaction, trait anxiety, and problem solving confidence as dependent variables. As descriptive analyses of indicators and disclosure and secrecy behavior (Table 4.2) and clusters revealed the effect of demographic variables; we controlled them in MANCOVAs, as covariates. For MANCOVA, when we add covariates, SPSS gives two test choice to compare main effects; Sidak and Bonferonni. Sidak test was used to compare main effects because it has slightly more statistical power than Bonferroni test (Abdi, 2007).

Table 4.10. MANCOVA Results of Clusters over Psychological Well-being Indicators

		df	F	η^2
Disclosure				
	Life Satisfaction	(3, 1190)	92.82***	.19
	Trait Anxiety	(3, 1190)	12.22***	.03
	Problem Solving Confidence	(3, 1190)	35.96***	.08
Secrecy				
	Life Satisfaction	(4, 1189)	22.35***	.07
	Trait Anxiety	(4, 1189)	15.57***	.05
	Problem Solving Confidence	(4, 1189)	6.29**	.02
Disclosure & Secrecy				
	Life Satisfaction	(4, 1189)	64.01***	.18
	Trait Anxiety	(4, 1189)	21.14***	.07
	Problem Solving Confidence	(4, 1189)	23.26***	.07

Note. ***p<.001, **p<.01

4.4.1 Disclosure

MANCOVA was performed to see if disclosure clusters differ from each other across dependent variables (life satisfaction, trait anxiety, problem solving confidence) after controlling the effect of gender, age, and SES. The Wilks' Lambda of .779 was significant, $F(9, 2891) = 34.73$, $p=.000$, partial $\eta^2=.080$. The multivariate effects of the covariates on dependent variables (life satisfaction, trait anxiety, and problem solving confidence) were significant [sex, $F(3, 1188) = 18.57$, $p=.000$, partial $\eta^2=.045$; age, $F(3, 1188) = 13.50$, $p=.000$, partial $\eta^2=.033$; SES, $F(3, 1188) = 6.94$, $p=.000$, partial $\eta^2=.017$]. Table 4.11 shows the between-subject effects for each dependent variable.

Univariate ANCOVAs were conducted as a follow-up test to the significant MANCOVA (Table 4.11). Results showed that *All* cluster received highest scores in life satisfaction and problem solving confidence. It was higher than *Best Friend* and *None* clusters in life satisfaction ($p<.001$) and problem solving confidence ($p<.001$) and lower than *Best Friend* ($p<.001$) and *None* ($p<.01$) in trait anxiety. It was also higher than *Parents* cluster in life satisfaction ($p<.05$) and problem solving confidence. ($p<.05$). But there were no significant differences between *All* and *Parents* clusters in trait anxiety.

None cluster received lowest scores in life satisfaction and problem solving confidence; highest score in trait anxiety. It was lower than *All* and *Parents* clusters in life satisfaction ($p<.001$) and problem solving confidence ($p<.001$), and higher in trait anxiety ($p<.01$). The adolescents in *None* cluster again received lower scores than *Best Friend* cluster in life satisfaction ($p<.001$) and problem solving confidence ($p<.01$). Even there was a difference between *None* and *Best Friend* clusters in trait anxiety, this difference was not significant.

Table 4.11. Means and Differences of Psychological Well-being Indicators Between Disclosure Clusters

	1.Best Friend	2.None	3.All	4.Parents			
	Mean (SD)	*Mean (SD)*	*Mean (SD)*	*Mean (SD)*	*F (df)*	η^2	*p-value*
Life Satisfaction	3.77 (.03)	3.46 (.03)	4.09 (.03)	3.79 (.04)	96.76*** (3, 1268)	.19	*1>2*** 3>1,2,4*** 4>,2****
Trait Anxiety	2.37 (.02)	2.41 (.03)	2.29 (.03)	2.24 (.02)	11.56*** (3,1229)	.03	*1>3*** 2>3***,4**
Problem Solving Confidence	3.67 (.06)	3.44 (.04)	3.99 (.04)	3.70 (.05)	35.82*** (3,1229)	.07	*1>2** 3>1,2,4*** 4>2****

*Note. ***p<.001, **p<.01, *p<.05*
Note. Best Friend was characterized by low disclosure to parents and high disclosure to best friends. *None* was characterized by lower disclosure to mother, father, and best friend than the mean value. *All* was characterized by high disclosure to all. *Parents* was characterized by high disclosure to parents and low disclosure to the best friend.

Parents cluster was found to be higher than *Best Friend* (*p*<.01) and *None* (*p*<.001) clusters in life satisfaction and lower than *None* cluster in trait anxiety (*p*<.05). It was also higher than *None* cluster in problem solving confidence (*p*<.001). It was also found to be lower than *All* cluster in life satisfaction (*p*<.001) and problem solving confidence (*p*<.001). There were no differences between *Best Friend* and *Parents* cluster in problem solving confidence.

Lastly, *Best Friend* cluster had significantly different and higher scores than *None* cluster in life satisfaction (*p*<.001) and problem solving confidence (*p*<.01). It was found to be lower than *Parents* cluster in life satisfaction (*p*<.001), and higher in trait anxiety (*p*<.001). When we compare *All* and *Best Friend* clusters, *Best Friend* cluster had lower scores in life satisfaction (*p*<.001) and problem solving confidence (*p*<.001), and also higher score in trait anxiety (*p*<.001). There was no significant difference between *Best Friend* and *None* clusters in trait anxiety.

4.4.2 Secrecy

MANCOVA was performed to see if secrecy clusters differed from each other across dependent variables (life satisfaction, trait anxiety, problem solving confidence) after controlling the effect of gender, age, and SES. The Wilks' Lambda of 0.912 was significant, $F(12, 3141)= 9.28$, $p=.000$, partial $\eta^2=.030$. The covariates were related to the life satisfaction, trait anxiety, and problem solving confidence [sex, $F(3,1187) = 26.93$, $p=.000$, partial $\eta^2=.064$; age, $F(3,1187) = 15.16$, $p=.000$, partial $\eta^2=.037$; SES, $F(3,1187) = 3.15$, $p=.024$, $\eta^2=.008$]. Table 4.11 shows the between-subject effects for each dependent variable.

Table 4.12. Means and Differences of Psychological Well-being Indicators Between Secrecy Clusters

	1.All	2.Low	3.None	4.Parents	5.Best Friend			
	Mean (SD)	*Mean (SD)*	*Mean (SD)*	*Mean (SD)*	*Mean (SD)*	*F df*	η^2	*p-value*
Life Satisfaction	3.58 (.03)	3.89 (.05)	4.04 (.04)	3.74 (.03)	3.88 (.03)	25.75*** (4, 1267)	.08	*2>1*** 3>1,4***,5** 4>1** 5>1***,4***
Trait Anxiety	2.46 (.02)	2.28 (.02)	2.18 (.03)	2.36 (.03)	2.26 (.04)	16.70*** (4, 1228)	.05	*1>2,3,5***,4* 4>3****
Problem Solving Confidence	3.61 (.04)	3.73 (.04)	3.92 (.05)	3.66 (.05)	3.79 (.07)	6.17*** (4, 1228)	.02	*3>1***,2*,4***

Note. *p<.05, **p<.01, ***p<.001
Note. Note. All was characterized by high secrecy in three relationships. Low was characterized by close to mean level secrecy in three relationship contexts. None was characterized by the lowest level of secrecy in all contexts. Parents was characterized by high secrecy level from parents and low secrecy level from the best friend. Best Friend was characterized by low secrecy from parents and high secrecy from best friends.

Univariate ANCOVAs were conducted as follow-up tests to the significant MANCOVA (Table 4.12). Results show that *None* cluster had the highest scores in life

satisfaction and problem solving confidence; and lowest scores in trait anxiety. *None* cluster had higher score than *All* and *Parents* clusters in life satisfaction ($p<.001$), problem solving confidence (*All, $p<.001$; Parents, $p<.01$*), and lower in trait anxiety (*All, $p<.001$; Parents, $p<.05$*). It was also higher than *Low* cluster in life satisfaction ($p<.05$). There were no significant differences between *None* and *Best Friend* clusters in life satisfaction.

All cluster participants had lowest scores in life satisfaction and problem solving confidence; and highest scores in trait anxiety. *All* cluster had lower scores in life satisfaction (*None, $p<.001$; Low, $p<.001$; Parents, $p<.01$; Best Friend, $p<.001$*) and trait anxiety (*None, $p<.001$; Low, $p<.001$; Parents, $p<.01$; Best Friend, $p<.01$*) as compared to the other clusters. For problem solving confidence, it was only lower than *None* cluster ($p<.001$). There was no significant difference between *All* and *Low, Parents*, and *Best Friend* clusters in problem solving confidence.

For *Best Friend* cluster, adolescents in that cluster received lower scores than *All* cluster in trait anxiety ($p<.01$); and higher scores than *All* ($p<.001$) and *Parents* ($p<.01$) in life satisfaction. Also it received lower score than *None* cluster in life satisfaction ($p<.01$). There were no significant differences between *Best Friend* cluster and *Low, Parent,* and *None* clusters in trait anxiety. Also, in problem solving confidence, there were no differences between *Best Friend* and *None* clusters.

Low cluster was found to be different than *All* cluster in life satisfaction ($p<.001$) and trait anxiety ($p<.001$) in the advantage of *Low* cluster. It was also found to be lower than *None* cluster in life satisfaction ($p<.05$) and problem solving confidence ($p<.05$). There were no significant differences between *Low* and *Parent,* and *Best Friend* clusters.

Lastly, *Parent* cluster was found to be significantly different from *All* cluster in life satisfaction ($p<.01$) and trait anxiety ($p<.01$) in favor of *Parent* cluster. It was also found to

48

be higher than *None* cluster in trait anxiety ($p<.05$). and lower in life satisfaction ($p<.001$) and problem solving confidence ($p<.01$). There were no significant differences between *Parents* cluster and *Low*, and *Best Friend* clusters.

4.4.3 Disclosure & Secrecy

MANCOVA was performed to see if disclosure and secrecy clusters differed from each other across dependent variables (life satisfaction, trait anxiety, and problem solving confidence) after controlling the effect of gender, age, and SES. The Wilks' Lambda of 0.985 was significant, $F(12, 3141)= 14.34$, $p=.000$, partial $\eta^2=.015$. The covariates sex, age, and SES were related to the life satisfaction, trait anxiety, and problem-solving confidence [sex, $F(3, 1187) = 31.17$, $p=.000$, partial $\eta^2=.073$; age, $F(3, 1187) = 14.64$,

Table 4.13. Means and Differences of Psychological Well-being Indicators across Disclosure & Secrecy Clusters

	1.None	2.Best Friend Secrecy	3.Low Father & Best Friend Disclosure	4.Low Parent Secrecy	5.All	F df	η^2	p-value
	Mean (SD)	*Mean (SD)*	*Mean (SD)*	*Mean (SD)*	*Mean (SD)*			
Life Satisfaction	3.57 (.03)	4.01 (.03)	3.88 (.03)	3.51 (.03)	4.26 (.04)	69.44*** (4, 1267)	.18	*2>1,4***,3* 3>1,4*** 5>1,2,3,4***
Trait Anxiety	2.47 (.02)	2.29 (.03)	2.25 (.03)	2.38 (.03)	2.10 (.04)	21.77*** (4, 1228)	.07	1>2,3,5*** 2>5*** 3>5** 4>3**,5***
Problem Solving Confidence	3.56 (.04)	3.91 (.04)	3.75 (.05)	3.48 (.05)	4.10 (.06)	14.71*** (4, 1136)	.05	*2>1,4*** 3>1,4*** 5>1,3,4***

*Note. *p<.05, **p<.01, ***p<.001*
Note. None was characterized by low disclosure to all and high secrecy from all. *Best Friend Secrecy* was characterized by high disclosure to all, low secrecy from mother and father, and high secrecy from best friend. *Low Father & Best Friend Disclosure* was characterized by low disclosure to father and best friend, high disclosure to mother, and low secrecy from all. *Low Parent Secrecy* was characterized by low disclosure to all, low secrecy from mother and father, and high secrecy from best friend. *All* was characterized by high disclosure and low secrecy from all.

p=.000, partial η^2=.036; SES, F(3, 1187) = 6.17, p=.000, partial η^2=.015]. Table 4.11 shows the between-subject effects for each dependent variable.

Univariate ANCOVAs were conducted as follow-up tests to the MANCOVA (Table 4.13). According to the results, *All* cluster received highest scores in life satisfaction and problem solving confidence; and lowest score in trait anxiety. The life satisfaction and trait anxiety scores were significantly different than all other clusters' scores, in the advantage of *All* cluster. The problem solving score was also significantly different from other clusters except *Best Friend Secrecy* cluster.

None cluster was found significantly lower in life satisfaction and problem solving confidence, and higher in trait anxiety than *Best Friend Secrecy*, *Low Father & Best Friend Disclosure*, and *All* clusters. There were no significant differences between *None* and *Low Parent Secrecy* clusters. *Low Parent Secrecy* cluster showed similar pattern with *None* cluster. Only difference was; *None* cluster was found significantly higher than *Best Friend Secrecy* cluster, but *Low Parent Secrecy* cluster was not found significantly different.

Best Friend Secrecy cluster was found significantly higher than *None, Low Father & Best Friend Disclosure,* and *Low Parent Secrecy* clusters in life satisfaction. It was significantly higher than *All* and lower than *None* in trait anxiety. Lastly, it was significantly higher than *None* and *Low Parent Secrecy* in problem solving confidence.

Low Father & Best Friend Disclosure was found significantly higher than *None* and *Low Parent Secrecy,* and lower than *All* and *Best Friend Secrecy* in life satisfaction. It was significantly higher than *All,* and lower than *None* and *Low Parent Secrecy* clusters in trait anxiety. In problem solving confidence, it was significantly higher than *None* and *Low Parent Secrecy*, and lower than *All*.

50

Chapter 5

DISCUSSION

The goal of the present study was to examine the relationship between adolescents' disclosure and secrecy behaviors in three important close relationships and psychological well-being indices (life satisfaction, trait anxiety, and problem-solving confidence). Based on the previous studies, it was assumed that disclosure and secrecy behaviors of adolescents would be related to psychological well-being (Almas et al., 2011; Keijser et al., 2010; Kerr & Stattin, 2000; Kerr et al., 2010; Laird et al., 2013b; Smetana et al, 2010; Stattin & Kerr, 2000) and would show differences in different close relationship contexts (Frijns et al., 2010; Keijsers et al., 2009; Solis et al., 2015). Although the disclosure and secrecy literature was born out of parental monitoring research and have built upon empirical data without much theoretical underpinnings, along with the accumulation of the studies, self-determination theory (SDT; Deci & Ryan, 2000) and narrative perspective have brought some explanations for the links between disclosure and secrecy behaviors and psychological well-being.

While previous research has adopted the variable-centered approach to examine disclosure and secrecy, the present study adopted person-centered approach in addition to the variable-centered approach: The data was examined in clusters that were created according to their disclosure and secrecy behavior patterns in their three close relationships. The examination of the theoretical model via structural equational model has provided findings regarding how disclosure and secrecy in specific close relations predict psychological well-being (variable-centered analyses); and the comparisons of disclosure and secrecy behavior patterns in three close relationships has provided further information about how different behavior patterns differ in psychological well-being indices. In the

51

following section, the findings are summarized and discussed in view of the theory and empirical literature. Below the analyses are discussed first for the relationships between disclosure and well-being, then for secrecy and well-being, and lastly, for both disclosure and secrecy patterns together and well-being.

5.1 Disclosure and Psychological Well-being

We examined the relation between disclosure and psychological well-being with variable- and person-centered approaches. Results of the variable-centered analysis showed that higher disclosure to mother predicted higher life satisfaction but lower problem solving confidence. Also, higher disclosure to father predicted higher life satisfaction and higher problem solving confidence, and lower trait anxiety. Higher disclosure to best friend predicted higher life satisfaction and problem solving confidence.

As expected, disclosure to mother, father, and best friend was related to well-being indices. Previous research has validated the relationship between disclosure to parents and higher psychological well-being, better relationships, less delinquency, less anxiety, and better coping skills (Almas et al., 2011; Keijsers et al., 2009; Laird & Marrero, 2010; Uysal et al., 2010). To our knowledge, this is the first study which examined the disclosure to best friend and psychological well-being. Looking from a narrative perspective, the link between disclosure and well-being may be explained by the role of narrations in the identity development. According to the narrative perspective, narrating of experiences is a part of building an identity and a sense of self (McLean & Pasupathi, 2010). Internalization and narrating the self provides coherent and continuous unity, purpose and meaning to the person's life. This process is important to psychological development and well-being. People who create more coherent and elaborate narratives have higher well-being and lower internalizing problems (McAdams, Reynolds, Lewis, Patten, & Bowman, 2001). For

adolescents, disclosing to significant other is suggested to be one of the ways to create coherent and elaborate autobiographical, self-related stories, and this may explain the link between disclosure and adolescent well-being.

The link between disclosure to mother and problem-solving confidence was significant but negative. This finding was unexpected; we had assumed that the more adolescents disclose to their mothers the higher their problem confidence would be. However, as the data is cross-sectional and the relationship can be seen in a reverse way; it may be the case that adolescents disclose more to their mothers if they are grappling with issues that they have not yet developed efficient coping skills and therefore are not confident about their problem solving skills. The reason of seeing this relation only for disclosure to mother may be in line with Door, Branje and Meeus longitudinal study (2011), which found mothers had higher level of positive problem solving towards adolescents than fathers' and there was more maturation in the adolescent-mother relationship compared to adolescent-father relationship. Adolescents who are not confident about their problem solving skills may be disclose more information to their mother as a result of this maturation. Future research might have dig more into the kind of issues that adolescents disclose to their fathers and mothers and their links to psychological well-being.

The correlations between disclosure to mother and father, and anxiety were negatively linked, as expected; however, in SEM analysis, contrary to expectations, disclosure to mother did not predict lower anxiety but disclosure to father did. It should be noted that in SEM, as the score for disclosure to mother and father as well as demographic variables (as control variables) were entered together, the effects of disclosure to mother and to father should be read as their relative effects on well-being after the controlling for the effects of each of these variables. That means, after controlling for the effect of

disclosure to father, disclosure to mother was not linked to anxiety, but the effect of disclosure to father remained significant, even after controlling for the effect of disclosure to mother. According to Fişek's (1995) study, disclosing about self and decision was mostly to father, whereas disclosure about emotions was mostly to mother. In other words disclosure to mother and father may not mean same thing. In the light of previous result, our results may showed that if adolescents are living in a family which promotes sharing more with the father, this may make a difference in the anxiety levels of adolescents. However, disclosing to mother is a relatively more conventional and usual practice in Turkey (Hortaçsu, 1989); hence it might not make a difference in the anxiety levels of adolescents. For example, a study from Malaysia, a collectivist culture, showed that the father's parenting practices (consistent discipline and monitoring) are related to adolescents' lower anxiety (Jafari, Baharudin, & Archer). Even though parental practices were not in the focus of the present study, relation between the disclosure to father and well-being might be also related to family structure, paternal parenting effects and adolescent-father relationship. Future studies may examine the relationships between familial factors, disclosure, and well-being.

Using the person-centered approach, we distinguished four clusters of adolescents that meaningfully differed in their pattern of disclosure; the clusters which showed high disclosure to all (*All*), high disclosure to parents and low disclosure to best friend (*Parents*), low disclosure to parents and high disclosure to best friend (*Best Friend*), and low disclosure to all (*None*).

The comparisons of these clusters showed that in general the group which had the higher levels of disclosure to all (mother, father and best friend; *group All*) showed the highest level of well-being (higher life satisfaction and problem solving confidence, and lower anxiety); and the differences between the *All group* and others (higher disclosure to

Parents, higher disclosure to *Best friend,* and lower disclosure to all *None)* were significant. The groups which was characterized by high disclosure to parents (group *Parents)* also had higher levels of life satisfaction as compared to *Best friend* and *None* groups, and had higher problem solving confidence than *None* group. Group *None,* and group *Best friend* had higher levels of anxiety than groups *All* and *Parents.*

These results are in concordance with the findings of the variable-centered analysis which has indicated that higher disclosure to parents is related to higher levels of well-being; and the links from disclosure to parents to well-being indices were significant in contrast to the paths from disclosure to best friend to well-being. However, person-centered analysis yielded an important information on the unexpected non-significant path from disclosure to friend to well-being indices. Person-centered analysis indicated that disclosure to best friend matters, and it makes a positive difference when adolescents had lower disclosure to their parents (as in the case in *None* group). This means that for when adolescents disclose less than the mean level to their parents, disclosing to the best friends serve as a path to well-being. Disclosure to best friend, was not examined before this study. This effect of disclosure to best friend may be explained by developmental perspective to adolescence period. Adolescence has been described as the time for building intimate relationships, and friends take an important role in building this intimacy (Sullivan, 1953). This intimacy is undeniably a result of sharing and disclosing. Disclosure to the best friend may have effect on psychological well-being because of its contribution to building intimate relationships which is one of the main developmental tasks of adolescence period.

5.2 Secrecy and Psychological Well-being

Again, the relation between secrecy and psychological well-being were examined with variable- and person-centered approaches. Variable-centered analysis showed that secrecy from mother predicted lower life satisfaction as expected and higher anxiety, but did not predict lower problem solving confidence. Secrecy from father predicted higher trait anxiety and lower life satisfaction, and lower problem solving confidence. Unexpectedly, secrecy from best friend did not predict any of the psychological well-being indicators.

Generally, the findings of the variable-centered analysis of present study are consistent with the previous studies about secrecy from parents. Previous studies also have shown that there is a link between the secrecy from mother and father and undesirable psychological outcomes such as problem behaviors, delinquency, negative stress coping strategies, depression, high trait anxiety and low life satisfaction (Almas et al., 2011; Frijns et al., 2010; Smetana et al., 2010; Uygun et al., 2010). Secrecy models discuss the link between secrecy and well-being (Lane & Wegner, 1995; Pennebaker, 1985). According to inhibition and preoccupation models, the person who keeps secret tries to suppress the idea of the secret to not reveal it and this causes cognitive and psychological burden. The burden of keeping secret causes stress and obsession to suppress the ideas, thus relate the lower well-being. Secrecy from parents may be related to lower well-being as adolescents are under stress and have obsessed ideas caused by secrecy.

However, secrecy from best friend did not predict any of the well-being indicators which was contrary to our hypothesis. Laird and colleagues' (2013a) study showed the positive relationship between secrecy from best friend and parents, depression, and antisocial behaviors. Our study also showed positive relationship between secrecy from

best friend and mother, father and life satisfaction. But the model did not show significant link to any of the well-being indices. This result may be explained by the content of secrets kept from significant others. Adolescents may keep different type of secrets from their parents and their best friends and secrets that kept from parents may be more effective on well-being. As literature did not cover the variance of secret type across parents and best friend, future research may examine the secret itself in both parents and best friend relationship contexts.

Nevertheless, there were also unexpected findings: For example, although secrecy from mother and problem solving confidence, and life satisfaction were significantly correlated, in the SEM analysis, higher levels of secrecy did not predict lower problem solving confidence. As discussed above, in the model, secrecy from mother has a relation to well-being indices after controlling for the effect of secrecy from father. This suggests that secrecy from mother and father may have different meanings; and the content of secrets that adolescents kept from their mother and father may be different. The kind of secrets kept from the father may be more stressing and thus may have stronger links to well-being indices, relative links to psychological well-being. Future research may examine the content of the secrets and familial mechanisms' role on the secrecy and well-being relationship.

Using the person-centered approach, we distinguished five clusters that differed in secrecy patterns. Clusters differed across their mean level of secrecy from mother, father, and best friend. Five clusters showed five distinct patterns; keeping secrets from all (*All*), keeping some secrets from all (*Low*), keeping secrets from parents (*Parents*), keeping secrets from the best friend (*Best Friend*), and no secrets from anyone (*None*).

The person-centered analysis revealed a detailed pattern: As can be expected, keeping lowest secrets from all (*None* group) had better psychological well-being than other groups (except *Best friend*-the ones keeping secrets from their best friends). Again, as expected, *All group* (the one keeping secrets from all) had the lowest psychological well-being level as compared to others. These results were parallel with the variable-centered analysis results.

It is seen that secrecy from parents shows the dominant positive effect on adolescent well-being but still low secrecy from best friend shows a buffer effect when adolescents keep secrets from their parents. These results appear to support the Frijns et al.'s (2013) results which have shown that the effect of revealing secrets to at least one significant person diminishes the adverse effect keeping secrets on well-being. This study may point that when adolescents keep a secret from parents, they may do not keep this secret from their best friend and reveal it. In this way, keeping secrets from parents but not friends may have effect on well-being as it decreases unfavorable effects of secrecy from parents. However, the explanation of revealing at least one person is not enough to explain the difference between secrecy from parents, and best friend. This difference may be related to the type of the secrets. As mentioned above, adolescents may keep different type of secrets from their parents and their best friends and secrets that kept from parents may be more effective on well-being. Although, in presented model well-being was predicted by secrecy, literature has shown bidirectional link between secrecy and well-being. Tilton-Weaver (2014) study has shown that secrecy from parents was related to delinquency reciprocally; higher level of secrecy increased delinquency and delinquency increased secrecy level. The results may also be explained as adolescents may engage in a certain behavior, idea or feeling that related to lower well-being and keep this as a secret especially from parents but not best friend.

It is important to mention that when adolescents do not keep secrets from their parents, high secrecy from best friend did not show a significant change in well-being. Also in the presented model, it was presented that secrecy from mother and father was linked to psychological well-being indices but secrecy from best friend was not. However, person-centered analysis revealed that when adolescents keep secrets from their parents, we see the negative effect of secrecy from best friend. In this vein, although secrecy from mother and secrecy from father were correlated with each other but not secrecy from the best friend, when we look at the clusters, not all adolescents who kept secrets from parents also kept secrets from their best friends as was mentioned in Laird and colleagues' (2013a) study. In other words, secrecy from parents or best friend does not show the clear effect on well-being by itself, it should be evaluated together with secrecy behavior in other close relationships and person-centered analysis is the way of seeing these various relationship patterns.

5.3 Disclosure & Secrecy Clusters and Differences in Psychological Well-being

Cluster analysis on disclosure and secrecy behaviors was conducted to see how well-being differs across the different patterns of disclosure and secrecy together. Clusters showed five different patterns; the groups which showed low disclosure to all and high secrecy from all (*None*), high disclosure to all and low secrecy from parents and high secrecy from best friend (*Best Friend Secrecy*), low disclosure to father and best friend, high disclosure to mother, and low secrecy from all (*Low Father & Best Friend Disclosure*), low disclosure to all and low secrecy from parents and high secrecy from best friend (*Low Parent Secrecy*), high disclosure to all and low secrecy from all (*All*).

High disclosure and low secrecy from all group (*All*) had the highest well-being level as compared to others. This result supported the separate disclosure and secrecy

cluster results presented above. Although cluster analysis showed five-cluster solution was suitable and the groups were different from each other in terms of secrecy and disclosure levels, some clusters showed similar well-being levels. High secrecy from parents, and low disclosure to all (*None*) and low disclosure to all, low secrecy from parents, and high secrecy from best friend (*Low Parent Secrecy*) did not significantly differ from one another in well-being indices and showed the same patterns in comparison to other clusters. Also, high disclosure to all, low secrecy from parents and high secrecy from best friend *(Best Friend Secrecy)* and high disclosure to mother, low disclosure to father and best friend, and low level of secrecy from all (*Low Father & Best Friend Disclosure*) clusters also showed almost the same pattern in comparison to others and they were not significantly different from each other in any of the well-being indicators, except life satisfaction.

Disclosure and secrecy clusters analysis revealed that low level of secrecy from all and high level of disclosure to all showed significant differences on well-being. When disclosure level is low, variances in the secrecy to mother and father levels did not show differences on well-being. This result may show dominant effect of disclosure on well-being or be related to low level disclosure to friend which was not found in variable-centered analysis. Future research may focus on this contradiction between different analysis approach.

Disclosure and secrecy clusters explored new patterns of disclosure and secrecy behaviors in addition to previous analysis of this study. This analysis has shown how both disclosure and secrecy behaviors are related to the well-being in different relationship contexts. Examining the groups for both disclosure and secrecy gave us a chance to see patterns and their possible effects on adolescents. Also, along with the previous analysis, it showed the distinction of disclosure and secrecy concepts by the variances of the patters:

60

low disclosure and high secrecy do not always appear in the same pattern and also high disclosure and low secrecy do not have to be appeared in the same pattern.

5.4 Limitations

The present study has some limitations. First of all, the study is limited by the cross-sectional nature, that's why it is not possible to claim cause and effect relationships between variables. The second limitation is the data is single-source. Some assumptions and explanations rely on the parental knowledge but data only collected from adolescents. In addition, the data are collected from only İstanbul. Even it was collected from eight public schools from different districts of İstanbul, it may be a factor of generalization of the data.

5.5 Conclusion & Future Directions

In conclusion, the results of the present study indicate that adolescents' disclosure and secrecy is related to the psychological well-being. While higher disclosure and lower secrecy were related to higher well-being, lower disclosure, and higher secrecy was related lower well-being. Variable- centered analysis revealed direct paths from disclosure and secrecy to well-being and it was important to see the single effect of the disclosure and secrecy from a significant one while controlling the other variables. Results of variable-centered analysis yielded the importance of disclosure to mother, father, and best friend. For secrecy, father had a dominant role in adolescent well-being, but secrecy from best friend did not show any relations with the well-being. Person-centered approach added to variable-centered approach that handling variables together across different relationship contexts yields the detailed case and patterns in the data. In our data, person-centered approach revealed especially friendship disclosure and secrecy relations and showed that disclosure and secrecy from friendship take role on well-being if adolescent have lower

disclosure or higher secrecy from parents. This results showed the importance of adopting person-centered approach. Person-centered analysis revealed the heterogeneous patterns of the sample. While variable-centered analysis revealed the relations between the variables, person-centered analysis show how might these relations vary in different contexts. This showed the need for examining the detailed patterns in addition to variable analysis. Also, this is the first study in disclosure and secrecy literature which was adopted both variable- and person-centered approaches to examine the links between variables.

As mentioned in the discussion, future studies may examine the relationships between familial mechanisms, disclosure, and well-being in order to understand differences between father and mother roles in disclosure and secrecy. Also, future research may revise friend secrecy item in the scale that has different content from parent disclosure. Lastly, further research may adopt different classification methods in different populations to examine more detailed patterns to see more clear links between disclosure, secrecy and well-being indicators together.

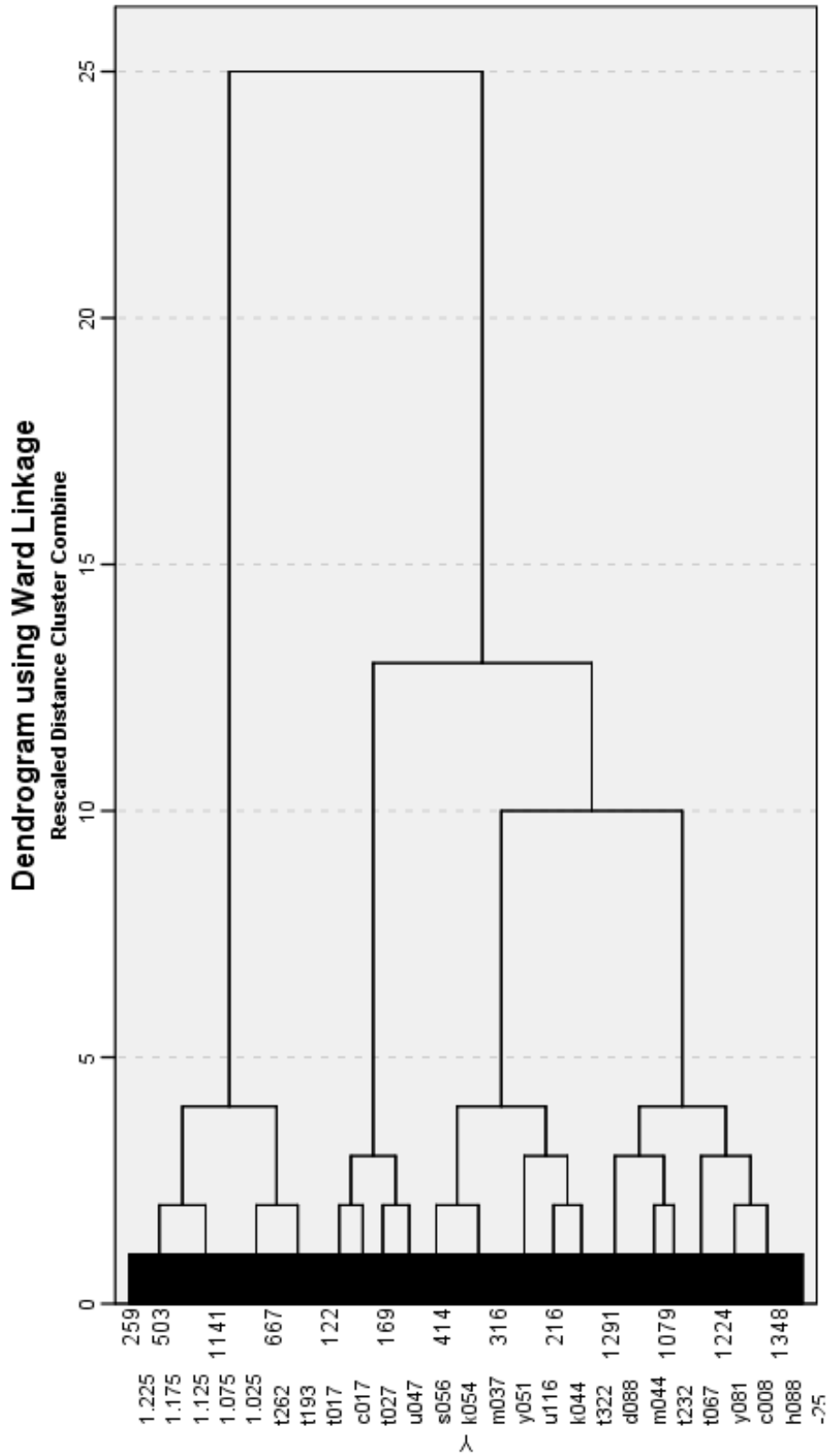Figure 3. Disclosure Cluster Dendrogram

Figure 4. Secrecy Cluster Dendrogram
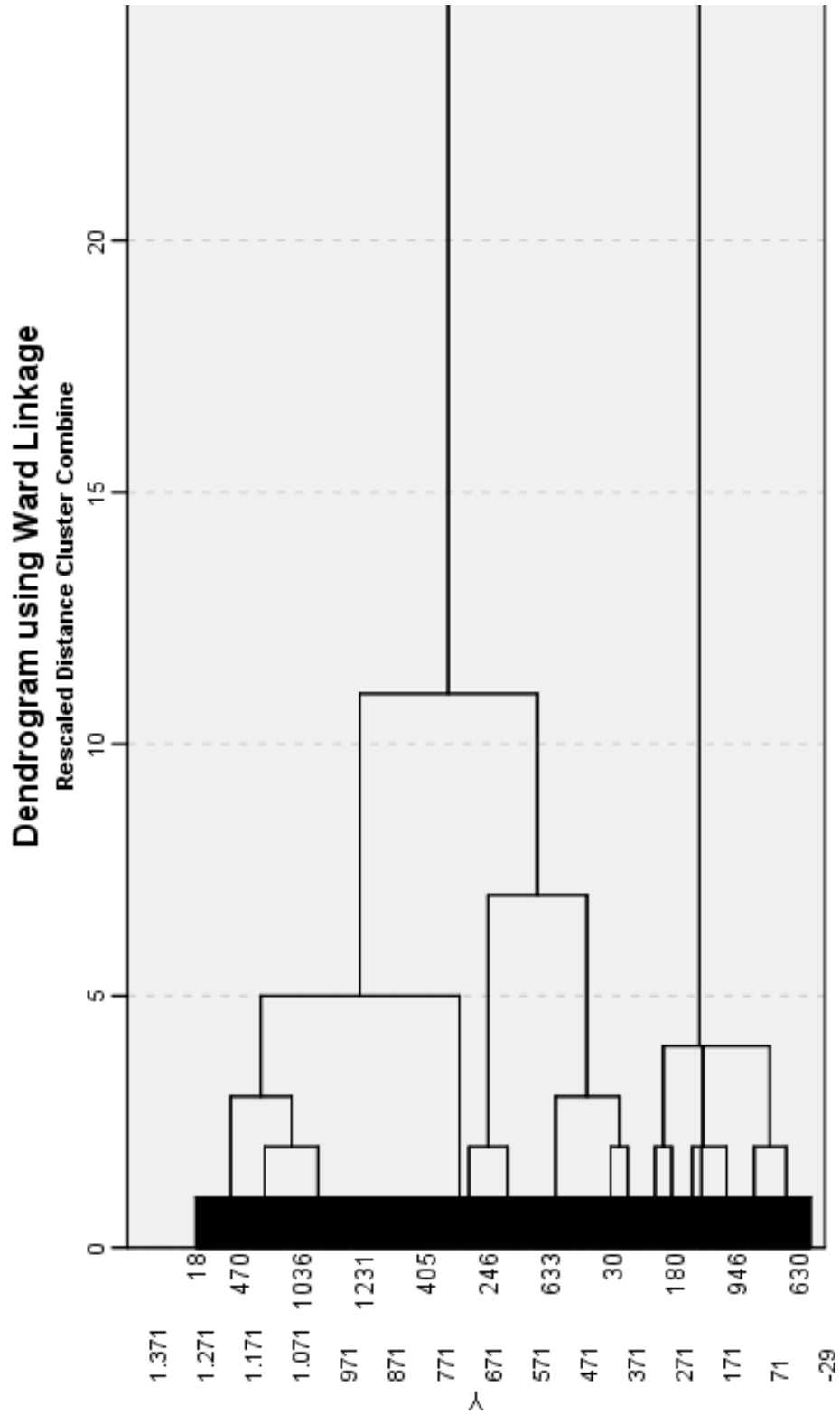
Figure 5. Disclosure & Secrecy Cluster Dendrogram
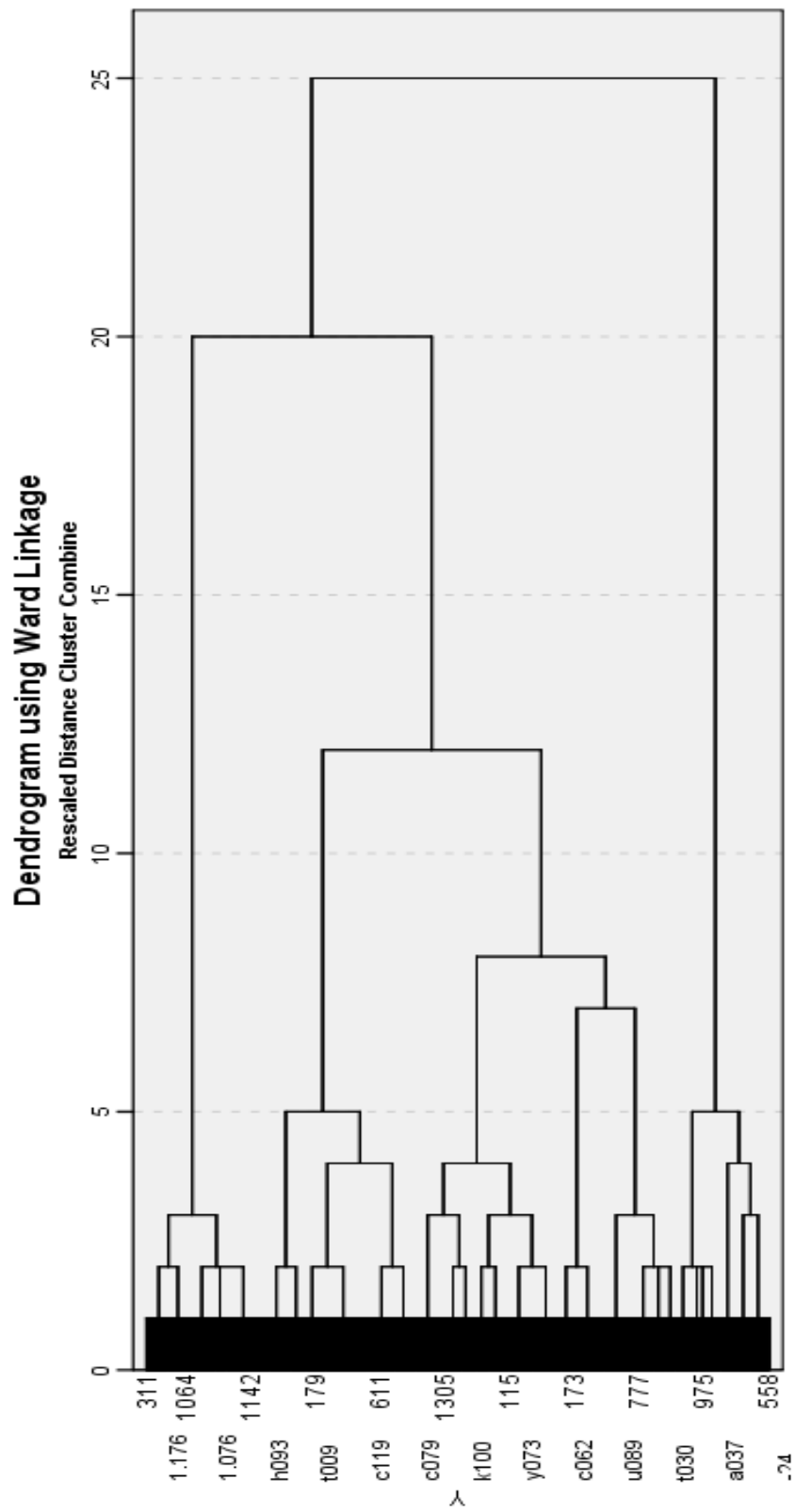
APPENDIX A. Demographics

Aşağıda bazı demografik bilgileri cevaplamanız istenmektedir.

1. Doğum tarihiniz (gün/ay /yıl):_____/_____/_____

2. Cinsiyetiniz: Kız___   Erkek___

3. Kaçıncı sınıfta öğrencisiniz?_____

4. Genel not ortalamanızı yazınız:_____

5. Anneniz çalışıyor mu? Evet___   Hayır___   Emekli___

6. Annenizin mesleğini yazınız_____

7. Babanız çalışıyor mu? Evet___   Hayır___   Emekli___

8. Babanızın mesleğini yazınız_____

9. Anneniz ve babanız: Evli _____   Boşanmış_____   Diğer (belirtiniz): _____

10. Anneniz kaç yaşında?_____

11. Babanız kaç yaşında?_____

	Annenizin eğitim durumu	Babanızın eğitim durumu
Okur-yazar değil		
Okur-yazar		
İlkokul mezunu		
Ortaokul mezunu		
Lise ve dengi okul mezunu		
Fakülte/ yüksekokul mezunu		
Yüksek lisans/doktora derecesine sahip		

APPENDIX B. Child Disclosure and Secrecy Scale

Aşağıdaki sorular annenizle ve babanızla ne ölçüde hayatınıza dair konuştuğunuzu sormaktadır. İlgili konuda ne ölçüde bilgi paylaştığınızı verilen 5'li ölçeğe göre değerlendiriniz.

1	2	3	4	5
Hiçbir zaman	Nadiren	Bazen	Sık sık	Her zaman

	Annenizle ilişkinizi düşünerek puan veriniz	Babanızla ilişkinizi düşünerek puan veriniz
1. Anneniz/babanız ile o size bu konuda bir şey sormadan arkadaşlarınız konusunda konuşur musunuz? (örneğin kimlerle arkadaşlık ettiğiniz, arkadaşlarınızın pek çok konuda ne düşünüp ne hissettiği vb. gibi konular)	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
2. Annenizle/babanızla ne sıklıkla okul hakkında konuşursunuz? (hangi dersin nasıl gittiği, hocalarınızla ilişkileriniz vb.)	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
3. Annenizle/babanızla ev dışında (okul çıkışı, akşam veya hafta sonu) nasıl vakit geçirdiğiniz, neler yaptığınız, nereye gittiğiniz konusunda konuşur musunuz?	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
4. Annenizle/babanızla genel olarak duygu ve düşüncelerinizi paylaşır mısınız?	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
5. Boş zamanlarınızda neler yaptığınız konusunda annenizden/babanızdan sır saklar mısınız?	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)
6. Hafta sonları veya akşamları neler yaptığınız konusunda annenizden/babanızdan sır saklar mısınız?	(1) (2) (3) (4) (5)	(1) (2) (3) (4) (5)

APPENDIX C. Friend Disclosure and Secrecy Scale

Aşağıdaki sorular en yakın arkadaşınızla ne ölçüde hayatınıza dair konuştuğunuzu sormaktadır. İlgili konuda ne ölçüde bilgi paylaştığınızı verilen 5'li ölçeğe göre değerlendiriniz.

1	2	3	4	5
Hiçbir zaman	**Nadiren**	**Bazen**	**Sık sık**	**Her zaman**

1. Yakın arkadaşınıza o size bu konuda bir şey sormadan ailenizle ilgili (örneğin birlikte nasıl vakit geçirdiğiniz, ailenizle olan ilişkileriniz, anne ve babanızın pek çok konuda ne düşünüp hissettiği vb.) konuşur musunuz?	(1) (2) (3) (4) (5)
2. Yakın arkadaşınızla ne sıklıkla okul yaşantınız ve diğer arkadaşlıklarınız hakkında konuşursunuz?	(1) (2) (3) (4) (5)
3. Yakın arkadaşınızla ne sıklıkla boş zamanlarınızda neler yaptığınız konusunda konuşursunuz?	(1) (2) (3) (4) (5)
4. Yakın arkadaşınızla genel olarak duygu ve düşüncelerinizi paylaşır mısınız?	(1) (2) (3) (4) (5)
5. Boş zamanlarınızda neler yaptığınız konusunda yakın arkadaşınızdan sır saklar mısınız?	(1) (2) (3) (4) (5)
6. Hafta sonları veya akşamları neler yaptığınız konusunda yakın arkadaşınızdan sır saklar mısınız?	(1) (2) (3) (4) (5)

APPENDIX D. Multidimentional Life Satisfaction Scale

Aşağıdaki ifadelerin sizin için ne kadar geçerli olduğunu verilen 5'li ölçeğe göre değerlendiriniz.

	Kesinlikle katılmıyorum 1	Biraz katılıyorum 2	Katılıyorum 3	Oldukça katılıyorum 4	Kesinlikle katılıyorum 5
1. Arkadaşlarım bana karşı naziktir	1	2	3	4	5
2.Birlikte zaman geçirmesi keyifli biriyimdir	1	2	3	4	5
3. Okulda kendimi kötü hissederim	1	2	3	4	5
4. Arkadaşlarımla kötü zaman geçiririm	1	2	3	4	5
5. İyi yapabildiğim pek çok şey vardır	1	2	3	4	5
6. Okulda çok şey öğrenirim	1	2	3	4	5
7. Anne ve babamla zaman geçirmekten hoşlanırım	1	2	3	4	5
8. Ailem, pek çok aileden daha iyidir	1	2	3	4	5
9. Okulla ilgili sevmediğim çok şey var	1	2	3	4	5
10. Güzel/yakışıklı olduğumu düşünüyorum	1	2	3	4	5
11. Arkadaşlarım çok iyidir	1	2	3	4	5
12. İhtiyacım olursa arkadaşlarım bana yardım ederler	1	2	3	4	5
13. Keşke okula gitmek zorunda olmasaydım	1	2	3	4	5
14. Kendimi severim	1	2	3	4	5
15. Arkadaşlarım bana iyi davranırlar	1	2	3	4	5
16. Çoğu insan beni sever	1	2	3	4	5
17. Ailemle birlikte olmaktan hoşlanırım	1	2	3	4	5
18. Ailem birbirleriyle iyi geçinir	1	2	3	4	5
19. Okula gitmeyi dört gözle beklerim	1	2	3	4	5
20. Ailem bana adil davranır	1	2	3	4	5
21. Okulda olmaktan hoşlanırım	1	2	3	4	5
22. Arkadaşlarım bana kötü davranır	1	2	3	4	5

23. Şimdiki arkadaşlarımdan farklı arkadaşlarım olmasını isterdim	1	2	3	4	5
24. Okul keyifli bir yerdir	1	2	3	4	5
25. Ailemdeki bireyler birbirleriyle konuşurken kibardır	1	2	3	4	5
26. Arkadaşlarımla çok eğlenirim	1	2	3	4	5
27. Annem babam ve ben birlikte eğlenceli zaman geçiririz	1	2	3	4	5
28. Ben iyi bir insanım	1	2	3	4	5
29. Yeni şeyler denemeyi severim	1	2	3	4	5
30. Yeteri kadar arkadaşım var	1	2	3	4	5

APPENDIX E. The State-Trait Anxiety Scale

Aşağıda kişilerin kendilerine ait duygularını anlatmada kullandıkları bazı ifadeler verilmiştir. Bu ifadelerin sizin için ne ölçüde doğru olduğunu verilen 4'lü ölçeğe göre değerlendiriniz.

	Hiç doğru değil	Biraz doğru	Doğru	Tamamen doğru
1. Genellikle keyfim yerindedir.	1	2	3	4
2. Genellikle çabuk yorulurum.	1	2	3	4
3. Genellikle kolay ağlarım.	1	2	3	4
4. Başkaları kadar mutlu olmak isterim.	1	2	3	4
5. Çabuk karar veremediğim için fırsatları kaçırırım.	1	2	3	4
6. Kendimi dinlenmiş hissederim.	1	2	3	4
7. Genellikle sakin, kendime hakim ve soğukkanlıyım.	1	2	3	4
8. Güçlüklerin yenemeyeceğim kadar biriktiğini hissederim.	1	2	3	4
9. Önemsiz şeyler hakkında endişelenirim.	1	2	3	4
10. Genellikle mutluyum.	1	2	3	4
11. Her şeyi ciddiye alır ve etkilenirim.	1	2	3	4
12. Genellikle kendime güvenim yoktur.	1	2	3	4
13. Genellikle kendimi emniyette hissederim.	1	2	3	4
14. Sıkıntılı ve güç durumlarla karşılaşmaktan kaçınırım.	1	2	3	4
15. Genellikle kendimi hüzünlü hissederim.	1	2	3	4
16. Genellikle hayatımdan memnunumum.	1	2	3	4
17. Olur olmaz düşünceler beni rahatsız eder.	1	2	3	4
18. Hayal kırıklıklarını öylesine ciddiye alırım ki hiç unutmam.	1	2	3	4
19. Aklı başında ve kararlı bir insanım.	1	2	3	4
20. Son zamanlarda kafama takılan konular beni tedirgin eder.	1	2	3	4

APPENDIX F. Problem Solving Confidence Scale

Aşağıdaki cümleler, günlük yaşantınızdaki sorunlarınıza genel olarak nasıl tepki gösterdiğinizi belirlemeye çalışmaktır. Bu problemler, kendini karamsar hissetme, arkadaşlarla geçinmeme, bir mesleğe yönelme konusunda yaşanan belirsizlikler gibi hepimizin başına gelebilecek türden sorunlar olabilir. Her bir cümlede sözü edilen davranışı ne sıklıkta gösterdiğinizi verilen 5'li ölçeğe göre değerlendiriniz.

1	2	3	4	5
Hiçbir zaman	**Nadiren**	**Bazen**	**Sık sık**	**Her zaman**

1. Sorunlarımı çözme konusunda genellikle yaratıcı ve etkili çözümler üretebilirim.	(1) (2) (3) (4) (5)
2. Başlangıçta çözümünü fark etmesem de sorunlarımın çoğunu çözme yeteneğim vardır.	(1) (2) (3) (4) (5)
3. Yeterince zamanım olur ve çaba gösterirsem, karşılaştığım sorunların çoğunu çözebileceğime inanıyorum.	(1) (2) (3) (4) (5)
4. Yeni ve zor sorunları çözebilme yeteneğime güveniyorum.	(1) (2) (3) (4) (5)
5. Bir sorunla karşılaştığımda, o durumla başa çıkabileceğimden genellikle pek emin değilimdir.	(1) (2) (3) (4) (5)
6. Elimdeki seçenekleri karşılaştırırken ve karar verirken kullandığım sistematik bir yöntem vardır.	(1) (2) (3) (4) (5)

REFERENCES

Abdi, H. (2007). The bonferonni and sidák corrections for multiple comparisons. In N.J. Salkind (Ed.). *Encyclopedia of Measurement and Statistics* (pp.103-107). Thousand Oaks (CA): Sage.

Almas, A. N., Grusec, J. E., & Tackett, J. L. (2011). Children's disclosure and secrecy: Links to maternal parenting characteristics and children's coping skills. *Social Development, 20,* 624–643.

Anderberg, M.R. (1973). *Cluster analysis for applications.* New York, NY: Academic Press, Inc.

Barber, B. K., Olsen, J. A., & Shagle, S. (1994). Associations between parental psychological control and behavioral control and youth internalized and externalized behaviors. *Child Development, 65,* 1120–1136.

Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), *Advances* in *experimental social psychology* (Vol. 6, pp. 1-62). San Diego, CA: Academic Press.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*, 238–246.

Bowker, J. C., Thomas, K. K., Norman, K. E., & Spencer, S. V. (2011). Mutual best friendship involvement, best friends' rejection sensitivity, and psychological maladaptation. *Journal of Youth and Adolescence*, *40*, 545–555.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen, & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). London: Sage.

Csikszentmihalyi, M. & Larson, R. (1984). *Being adolescent.* New York, NY: Basic Books.

Cumsille, P., Darling, N., & Martinez, L. (2010). Shading the truth: The patternings of

   adolescents' decisions to avoid issues, disclose, or lie to parents. *Journal of*

   Adolescence, 33, 285–296.

Deci, E. L., & Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and

   the self-determination of behavior. *Psychological Inquiry*, *11*, 227-268.

Dindia, K., Fitzpatrick, M. A., & Kenny, D. A. (1997). Self-disclosure in spouse and

   stranger interaction: A social relations analysis. *Human Communication Research,*

   23, 388–412.

Dinizulu, S. M., Grant, K. E., Bryant, F. B., Boustani, M. M., Tyler, D., & McIntosh, J. M.

   (2014). Parent-Adolescent relationship quality and nondisclosure as mediators of the

   association between exposure to community violence and psychological

   distress. *Child & Youth Care Forum*, *43*, 41-61.

Dishion, T. J. & McMahon, R. J. (1998). Parental monitoring and the prevention of child

   and adolescent problem behavior: a conceptual and empirical formulation. *Clinical*

   Child and Family Psychology Review, *1*, 61-75.

Engle, J. M., McElwain, N. L., & Lasky, N. (2011). Presence and quality of kindergarten

   children's friendships: Concurrent and longitudinal associations with child

   adjustment in the early school years. *Infant and Child Development*, *20*, 365–386.

Erikson, E. H. (1968). *Identity, youth, and crisis.* New York, NY: W. W. Norton & Co.

Finkenauer, C., Engels, R., & Meeus, W. (2002). Keeping secrets from parents:

   Advantages and disadvantages of secrecy in adolescence. *Journal of Youth and*

   Adolescence, *31*, 123–136.

Fisek, G. O. (1995). Gender hierarchy: Is it a useful concept in describing family

   structure?. In J. van Lawick & M. Sanders (Eds.), *Family, Gender and Beyond* (pp.

   63–72). Heemstede, The Netherlands: LS Books.

Fletcher, A., Steinberg, L., & Williams, M. (2004). Parental influences on adolescent

    problem behavior: Revisiting Stattin and Kerr. *Child Development, 75,* 781 – 796.

Frijns, T., Finkenauer, C., & Keijsers, L. (2013). Shared secrets versus secrets kept private

    are linked to better adolescent adjustments. *Journal of Adolescence, 36*, 55–64.

Frijns, T., Keijsers, L., Branje, S. J. T., & Meeus, W. (2010). What parents don't know and

    how it may affect their children: Qualifying the disclosure–adjustment link. *Journal*

    of Adolescence, 33, 261-270.

Georges, E. (1995). A cultural and historical perspective on confession. In J. W.

    Pennebaker (Ed.), *Emotion, Disclosure, and Health* (pp. 11-22). Washington, D.C.:

    American Psychological Association.

Habermas, T. & Bluck, S. (2000). Getting a life: The emergence of the life story in

    adolescence. *Psychological Bulletin*, *126,* 748–769.

Hair, J.F., Anderson, R.E., Tatham, R.L., & Black, W. (1998). Multivariate data analysis

    (5th ed.). Englewood Cliffs, NJ: Prentice Hall.

Harter, S. (1998). The effects of child abuse on the self-system. *Journal of Aggression,*

    Maltreatment and Trauma, *2*, 147–169.

Heppner, P. P., & Petersen, C. H. (1982). The development and implications of a personal

    problem solving inventory. *Journal of Counseling Psychology, 29,* 66-75.

Hoeve, M., Dubas, J. S., Eichelsheim, V. I., van der Laan, P. H., Smeenk, W., & Gerris, J.

    R. M. (2009). The relationship between parenting and delinquency: A meta-analysis.

    Journal of Abnormal Child Psychology, 37, 749–775.

Hortaçsu, N. (1989). Targets of communication during adolescence. *Journal of*

    Adolescence, 12, 253–263.

Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to

    underparameterized model misspecification. *Psychological Bulletin, 3,* 424–453.

Jafari, M., Baharudin, R. & Archer, M. (2016). Fathers' parenting behaviors and malaysian

adolescents' anxiety: Family income as a moderator. *Journal of Family Issues*, *37*,

198-220.

Keijsers, L., Branje, S. T., VanderValk, I. E., & Meeus, W. (2010). Reciprocal Effects

between parental solicitation, parental control, adolescent disclosure, and adolescent

delinquency. *Journal of Research on Adolescence*, *20*, 88-113.

Keijsers, L., Frijns, T., Branje, S. J. T., & Meeus, W. (2009). Developmental links of

adolescent disclosure parental solicitation and control with delinquency: Moderation

by parental support. *Developmental Psychology, 45*, 1314–1327.

Kelly, A. E. (2002). *The psychology of secrets*. New York, NY: Plenum.

Kerr, M., & Stattin, H. (2000). What parents know, how they know it, and several forms of

adolescent adjustment: Further support for a reinterpretation of monitoring.

Developmental Psychology, 36, 366 – 380.

Kerr, M., Stattin, H. k., & Burk, W. J. (2010). A reinterpretation of parental monitoring in

longitudinal perspective. *Journal of Research on Adolescence, 20,* 39–64.

Laird, R. D., & Marrero, M. D. (2010). Information management and behavior problems:

Is concealing misbehavior necessarily a sign of trouble? *Journal of Adolescence, 33,*

297–308.

Laird, R. D., Bridges, B. J., & Marsee, M. A. (2013a). Secrets from friends and parents:

Longitudinal links with depression and antisocial behavior. *Journal of*

Adolescence, *36*6, 85-693.

Laird, R. D., Marrero, M. D., Melching, J. A., & Kuhn, E. S. (2013b). Information

management strategies in early adolescence: Developmental change in use and

transactional associations with psychological adjustment. *Developmental*

Psychology, *49,* 928-937.

Lane, J. D., & Wegner, D. M. (1995). The cognitive consequences of secrecy. *Journal of Personality and Social Psychology, 69,* 237-253.

Larson, D. G., & Chastain, R. L. (1990). Self-concealment: Conceptualization, measurement, and health implications. *Journal of Social and Clinical Psychology, 9*, 439-455.

Laursen, B., & Hoff, E. (2006). Person-centered and variable-centered approaches to longitudinal data. *Merrill-Palmer Quarterly, 52*, 377-389.

Magnusson, D. (2003). The person approach: Concepts, measurement models, and research strategy. In S. C. Peck & R. W. Roeser (Eds.), *New directions for child and adolescent development: Person-centered approaches to studying development in context* (pp. 3-23). San Francisco: Jossey-Bass.

Margolis, G. J. (1974). The psychology of keeping secrets. *International Review of Psycho-Analysis, 1,* 291-296.

McAdams, D. P. (2008). Personal narratives and the life story. In O. John, R. Robins, & L. A. Pervin(Eds.), *Handbook of personality: Theory and research* (pp. 241-261). New York, NY: Guilford Press.

McAdams, D. P., Reynolds, J., Lewis, M., Patten, A., & Bowman, P. J. (2001). When bad things turn good and good things turn bad: Sequences of redemption and contamination in life narrative, and their relation to psychosocial adaptation in midlife adults and in students. *Personality and Social Psychology Bulletin*, *27*, 472–483.

Milligan, G.W., & Hirtle, S.C. (2012). Clustering and classification methods. In I.B. Weiner, J.A. Schinka, & W.F. Velicer (Eds.). *Handbook of psychology: Research methods in psychology* (2nd ed.). Charlottesville, VA: John Wiley & Sons.

Pedersen, S., Vitaro, F., Barker, E. D., & Borge, A. I. H. (2007). The timing of middle-

childhood peer rejection and friendships: Linking early behavior to early-adolescent adjustment. *Child Development*, *78*, 1037–1051.

Pennebaker, J. W. (1985). Traumatic experience and psychosomatic disease: Exploring the roles of behavioral inhibition, obsession, and confiding. *Canadian Psychology, 26*, 82-95.

Pennebaker, J. W. (1989). Confession, inhibition, and disease. *Advances in Experimental Social Psychology, 22,* 211-244.

Rubin, K. H., Bukowski, W. M., & Parker, J. G. (2006). Peer interactions, relationships, and groups. In N. Eisenberg (Ed.), *Social, emotional, and personality development*. Volume 3 of the *Handbook of child psychology* (6th ed., pp. 571–645). Editors-in-Chief: W. Damon & R. M. Lerner. Hoboken, NJ: Wiley.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*, 68-78.

Ryan, R. M., & Deci, E. L. (2002). An overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3-36). Rochester, NY: University of Rochester Press.

Smetana, J. G. & Chuang, S. (2001). Middle-class african american parents' conceptions of parenting in the transition to adolescence. *Journal of Research on Adolescence, 11,* 177–198.

Smetana, J. G., Metzger, A., Gettman, D. C., & Campione-Barr, N. (2006). Disclosure and secrecy in adolescent-parent relationships. *Child Development*, *1*, 201-217.

Smetana, J. G., Villalobos, M., Tasopoulos-Chan, M., Gettman, D. C., & Campione-Barr, N. (2009). Early and middle adolescents' disclosure to parents about activities in

different domains. *Journal of Adolescence, 32*, 693-713.

Smetana, J. G., Villalobos, M., Tasopoulos-Chan, M., Gettman, D. C., & Campione-Barr, N. (2010). Keeping secrets from parents: daily variations among poor, urban adolescents. *Journal of Adolescence, 33*, 321–331.

Solis, M. V., Smetana, J. G., & Comer, J. (2015). Associations among solicitation, relationship quality, and adolescents' disclosure and secrecy with mothers and best friends. *Journal of Adolescence, 43,* 193-205.

Sullivan, H. S. (1953). *The interpersonal theory of psychiatry.* New York. NY: W.W. Norton & Co.

Stattin, H., & Kerr, M. (2000). Parental monitoring: A reinterpretation. *Child Development, 71,* 1072 – 1085.

Tilton-Weaver, L. (2014). Adolescents' information management: Comparing ideas about why adolescents disclose to or keep secrets from their parents. *Journal of Youth & Adolescence, 43*, 803-813.

Tilton-Weaver, L. C., & Marshall, S. K. (2008). Adolescents' agency in information management. In M. Kerr, H. Stattin, & R. C. M. E. Engels (Eds.), *What can parents do? New insights into the role of parents in adolescent problem behavior* (pp. 11–41). Chichester, UK: John Wiley.

Tucker, L. R., & Lewis, C. (1973). The reliability coefficients for maximum likelihood factor analysis. *Psychometrica, 3*, 1–10.

Urry, S. A., Nelson, L. J., & Padilla-Walker, L. M. (2011). Mother knows best-Psychological control, child disclosure, and maternal knowledge in emerging adulthood. *Journal of Family Studies, 17,* 157-173.

Uysal, A., Lin, H. L., Knee, C. R. (2010) The role of need satisfaction in self-concealment and well-being. *Personality and Social Psychology Bulletin, 36,* 187–199.

Van Doorn, M. D., Branje, S. T., & Meeus, W. J. (2011). Developmental changes in
conflict resolution styles in parent-adolescent relationships: A four-wave
longitudinal study. *Journal Of Youth And Adolescence*, *40*, 97-107.

Vassilieva, J. (2016). *Narrative psychology: Identity, transformation, and ethics*.
Macmillan, UK: Palgrave.

Von Eye, A. & Wiedermann, W. (2015) Person-centered analysis. In: R.A. Scott, S.M.
Kosslyn (Eds.) *Emerging Trends in the Social and Behavioral Sciences* (pp. 1–18).
Hoboken, NJ: John Wiley & Sons, Inc.

Weeks, T. L., & Pasupathi, M. (2010). Autonomy, identity, and narrative construction with
parents and friends. In K. C. McLean, & M. Pasupathi (Eds.), *Narrative development
in adolescence: Creating the storied self* (pp. 65–91). New York, NY: Springer
Science Business Media.